

The RCGP Curriculum

The Curriculum Topic Guides



Royal College of
General Practitioners

#BeingaGP

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The Professional Topic Guides



Royal College of
General Practitioners

Consulting in General Practice

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you to understand important issues relating to consulting in general practice by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

Summary

- Effective communication with your patient and their advocates, including carers, is essential for good care
- As a general practitioner you must show a commitment to person-centred medicine, displaying non-judgemental attitudes and a holistic ethos
- Developing plans for care and support with the patient involves a collaborative approach, including agreeing shared goals and considering the patient's unique values and preferences alongside the best available evidence, as well as applying relevant ethical and legal principles
- You must manage complexity, uncertainty and continuity of care within the time-restricted setting of a consultation
- Technology is facilitating new ways of consulting in general practice, but fundamental information governance principles and communication skills still apply to these new contexts.

GP Consulting

The consultation between doctor and patient is at the heart of general practice. It is the central setting through which primary care is delivered and from which many of the curriculum outcomes are derived. The skills used in the consultation are transferable to other areas of professional practice. For example, your communication skills and approaches with patients are transferable to how you work with colleagues, in leadership and in teaching. Having highly developed communication skills is pivotal to all aspects of high quality patient care.

'Consultation skills' and 'communication skills' are often used interchangeably, but these are only a subset of the interpersonal skills, knowledge and attitudes required to consult effectively.

The following three areas have a strong influence on person-centred consulting:

1. Attitudes, feelings and biases

- Feelings and intuition strongly affect the consultation behaviour of both the doctor and the patient. These less transparent thinking processes bring benefits and risks to the

consultation. For example, while they can help you to establish rapport, it is also important to be aware of the potential impact of conscious and unconscious biases on shared decision-making

- Many patients will attend the same GP repeatedly during the course of their lives: this longitudinal relationship can influence attitudes, feelings, biases and processes within consultations for both patients and doctors
- Patients' views and perspectives may change during the course of their lives and even during the course of an illness
- Health beliefs, preferences, ethnic and cultural differences have an impact on the way that patients present with illness, their willingness to engage with health services, and their management
- Adopting a curious and open-minded attitude can help you gain insights into patients' perspectives
- Some patients may wish to approach health and illness in a non-scientific way. The reality for most people is that they make their own health choices on the basis of their own values and not necessarily on the health system's values. Understanding and responding to this can improve both the patient experience and concordance with agreed care plans
- Patients may sometimes prefer to delegate their autonomy to you as their GP, rather than accept this responsibility themselves, particularly at times of illness or distress. While being willing to take on this responsibility when appropriate, it is important to support patients in maximising their capacity for decision-making and encourage self-care.

2. The consultation process

- Clinical effectiveness and optimising whatever time you have to spend with the patient depend on effective consulting skills. To have an effective consultation, you need to navigate with the patient through the usual phases of the consultation in an appropriate sequence and at an appropriate pace. A working understanding of consultation models can greatly assist this process. For example, if you do not spend sufficient time discovering the reason for the patient's attendance and their expectations for the consultation, then your agreed management plan is less likely to be appropriate, and patient safety as well as satisfaction may be compromised
- Close observation of and interest in the patient are essential
- Person-centred consulting includes the choice of responses, both verbal and non-verbal, that you and the patient make
- It is important to be aware of your practice in real time, always seeing the patient as an individual reacting to their own unique context and taking this into account when formulating your responses. This real-time monitoring is essential for detecting when a consultation is not going as well as hoped, enabling appropriate steps to be taken to address this
- Consultations are usually time-constrained, although longer consultations tend to be associated with better health outcomes, increased patient satisfaction and enablement scores. Balanced against this are the competing demands of limited appointment numbers and reduced access to GPs

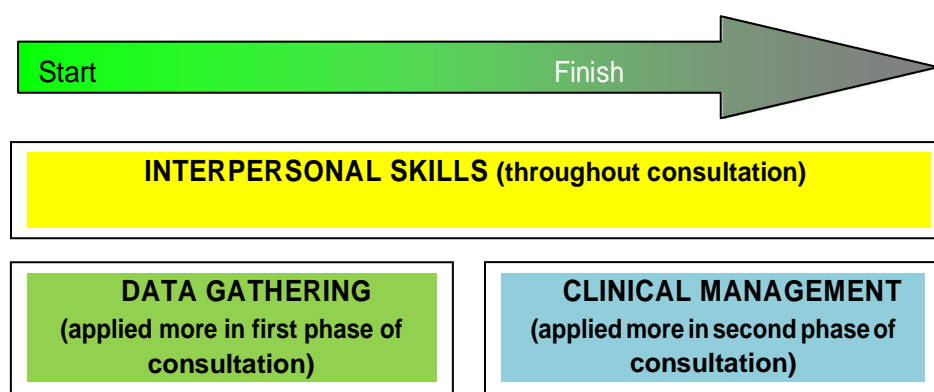
- Structured feedback on your consultation, with reference to evidence-based consultation and communication models, can help to improve your consulting skills.

3. The wider context of the consultation

- Consultations, along with episodes of illness, rarely impact on the patient alone
- It is important to understand the relationship between the interests of patients and the interests of their carers, in order to negotiate how relatives, friends and carers might become involved, while balancing the patient's rights to autonomy and confidentiality
- It is also important to identify and support people undertaking a caring role
- Consultations that work effectively from a patient's perspective require the doctor to understand that 'health' and 'illness' comprise more than the presence or absence of the signs and symptoms of disease
- Physical, psychological, socioeconomic, educational, cultural and community dimensions of health are reflected in every consultation
- It is important to understand the boundaries between professionals and other services with regard to clinical responsibility and confidentiality, particularly when working in teams and in care pathways that span organisations
- Each consultation provides a window to the local community. Cumulatively, these consultations can help you to understand the demography and diversity of your practice population, as well as provide powerful illustrations of unmet health needs and gaps in service provision. These experiences can be effectively combined with scientific data to inform the development of appropriate services for the community as a whole. It is also important to recognise the health needs of patients who are less able to consult.

Knowledge and skills guide

The main knowledge and skills required for effective consultation can be grouped into three broad areas: interpersonal skills, data-gathering (including history-taking, examination and investigations) and clinical management. The diagram illustrates these basic elements of a consultation. The order of these elements is not fixed and can sometimes change:



(Diagram used with kind permission from Martin Block)

Interpersonal skills

This area is about communicating effectively with patients, using recognised consultation techniques, establishing effective patient partnerships, managing challenging consultations, consulting with third parties and using interpreters.

In relation to these skills, a doctor demonstrating effective performance:

- Explores the patient's agenda, health beliefs and preferences
- Is alert to verbal and non-verbal cues
- Explores the impact of the illness on the patient's life
- Elicits psychological and social information to place the patient's problem in context
- Works in partnership with the patient and carers or relatives, finding common ground to develop a shared management plan
- Communicates risk effectively
- Shows responsiveness to the patient's preferences, feelings and expectations
- Enhances patient autonomy
- Provides explanations that are relevant and understandable to the patient
- Responds to needs and concerns with interest and understanding
- Has a positive attitude when dealing with problems, admits mistakes and shows commitment to improvement
- Backs their own judgement appropriately
- Demonstrates respect for others
- Does not allow their own views or values to inappropriately influence dialogue
- Shows commitment to equality of care for all
- Acts in an open, non-judgemental manner
- Is cooperative and inclusive in their approach
- Conducts examinations with sensitivity for the patient's feelings, seeking consent where appropriate.

Knowledge and skills required in this area include:

- Recognition that personal emotions, lifestyle and ill-health can affect both your consultation performance and the doctor-patient relationship
- Skills to respond flexibly to the needs and expectations of different individuals, including identifying and understanding the values that influence a patient's approach to healthcare and sharing information with patients in an honest, transparent and unbiased manner
- Skills to develop a shared understanding of a problem and its management with patients, so that they are empowered to make their own decisions and supported to look after their own health
- Skills to meet the needs of patients with communication problems, as well as those who have different languages, cultures, beliefs and expectations from your own
- Skills and techniques for consulting effectively in different contexts and settings, including:

- with other participants present, such as interpreters, advocates, colleagues, parents, carers;
- in different locations for example, patients' homes, residential or nursing care homes, urgent care centres and out of hours venues; and
- when using different media for consulting remotely – for example, telephone, email, e-consulting, video consultations
- Use of the computer in the consultation while maintaining rapport with your patient
- Effective and safe telephone, email and online consultation, applying an awareness of their uses and limitations while mitigating risks
- Approaches for optimising continuity of care and long-term relationships with your patient and their families
- Approaches for assessing and enhancing a patient's decision-making capacity
- Techniques to manage consultation time efficiently, including approaches for ending a consultation when appropriate
- Approaches for optimising continuity of care with patients and their families.

Data-gathering, technical and assessment skills

This area includes gathering and interpreting the patient's information from their narrative, clinical record and biographical data. It also concerns the use of investigations and examination findings and requires proficiency in performing clinical examinations and procedures.

In relation to these skills, a doctor demonstrating effective performance:

- Clarifies the problem and nature of decision required
- Uses an incremental approach, using time and accepting uncertainty
- Gathers information from history taking, examination and investigation in a systematic and efficient manner
- Is appropriately selective in the choice of enquiries, examinations and investigations
- Identifies abnormal findings or results and makes appropriate interpretations
- Uses instruments appropriately and fluently
- When using instruments or conducting physical examinations, performs actions in a rational sequence.

Knowledge and skills required in this area include:

- Focused history-taking, targeted questioning and examination to obtain sufficient relevant information to diagnose, manage and refer appropriately
- An appropriate and incremental approach to investigations
- Accurate, legible and contemporaneous clinical record-keeping
- Effective use of patient records and other written information during the consultation
- Recognition of 'red flag' elements in the patient narrative which may require urgent intervention to minimise risk
- Appropriate and timely physical examination and investigations.

Clinical management skills

This area is about recognising and managing common and important medical conditions in primary care, demonstrating a structured and flexible approach to decision-making, and dealing with multiple problems and co-morbidity while promoting a positive approach to health.

In relation to these skills, a doctor demonstrating effective performance:

- Recognises presentations of common physical, psychological and social problems
- Makes plans that reflect the natural history of common problems
- Offers appropriate and feasible management options
- Adopts clinical management approaches that reflect an appropriate assessment of risk
- Manages risk effectively in consultations, safety netting appropriately
- Makes appropriate prescribing decisions
- Refers appropriately and co-ordinates care with other healthcare professionals
- Simultaneously manages multiple health problems, both acute and chronic
- Encourages improvement, rehabilitation and recovery where appropriate
- Encourages the patient to participate in appropriate health promotion and disease prevention strategies.

Knowledge and skills required in this area include:

- Techniques and approaches for:
 - managing uncertainty;
 - exploring the probability of disease;
 - reducing the possibility of harm;
 - using time safely and appropriately – watching and waiting when it is safe to do so; and ‘safety netting’ to manage and reduce risk
- Approaches to inform and improve decision making about ethical dilemmas, including when and how to seek advice
- Formulation of appropriate differential and working diagnoses
- Maintenance of sufficient knowledge across the breadth of medical evidence in order to provide the best information for patients about their illness and treatment options
- Skills for reaching shared management decisions and plans based on the best available evidence and guidance, incorporating the patient’s goals, values and unique circumstances
- Knowledge of evidence-based health and care choices so that an informed discussion can occur, taking into account the patient’s values and priorities
- Approaches for communicating risks and benefits in a meaningful way to patients
- A comprehensive understanding of local services and patient pathways, to enable timely and appropriate referrals
- Knowledge of the self-management of acute and chronic disease as well as appropriate information sources to which patients can be directed
- Knowledge of lifestyle factors that affect health (e.g. smoking, alcohol, diet, physical activity, sleep, stress) and evidence-based approaches to addressing these

- Active health promotion within the consultation, including the shift from theory to clinical skills in behaviour change; the potential tension between this role and a patient's own agenda
- Skills to recognise and respond to a patient entering a terminal stage of illness
- Skills to reconcile different and sometimes conflicting professional roles within the consultation, such as clinician, patient advocate, leader, gatekeeper and resource manager
- Skills required for working effectively with other professionals including:
 - sharing information;
 - effective navigation to other professionals and services;
 - use of team skill mix;
 - applying leadership; and
 - management and team-working skills.

How to learn this area of practice

Work-based learning

As a specialty trainee, primary care is the ideal place for you to learn about the GP consultation in practice. There will also be excellent opportunities in secondary care settings. Examples of how to make the most of your clinical experience include:

- Video analysis of consultations. This can be done using the Consultation Observation Tool (COT)
- GP trainers can sit in with specialty trainees to give formative feedback. This can be done using the COT
- Random case analysis of a selection of consultations. This can be done in a Case Discussion
- Reflection on secondary care consultations using the Clinical Evaluation Exercise (mini-CEX)
- Patients' feedback on consultations using validated satisfaction questionnaires or tools, for example the RCGP Patient Satisfaction Questionnaire (PSQ)
- Sitting in with GPs and other healthcare professionals in practice to observe different consulting styles
- Observation of consulting behaviour during outpatient clinics
- Using the telephone and other digital communication tools to consult in the practice as well as in 'Out of Hours' settings, initially under close supervision and later independently.

You should have opportunities to discuss ethical and other values-related aspects of your practice with colleagues as these arise in your day-to-day work – for example, during contact with patients, their families and the wider community, and in relevant other contexts such as audit, significant event review meetings and developing practice policies (e.g. on patient consent). It is particularly helpful if there is 'protected time' for reflection and shared learning. Presenting cases to your peer groups as part of the training programme will promote reflective practice and can be used to illustrate the diversity of values within a specific professional group.

It is also important for specialty trainees to understand that the practice of medicine has its own culture, values, morals and beliefs that may set doctors apart from patients. During your training you should be supported to gain a better understanding of the diverse nature of the society in which you will work. You should also learn to ask questions and look critically at your assumptions and attitudes about people who are different from yourself, as well as to reflect on these issues and, importantly, on your own feelings. The specialty trainee working in a hospital or in primary care should be training in an environment that embraces differences and similarities in culture, backgrounds and experience. This should be an environment free from racism, sexism and bullying where there are positive role models and processes in place that promote equality and value diversity in the workplace.

Self-directed learning

Role-played consultations, for example during teaching or courses, are valuable in exploring consultation behaviour in a safe environment, especially those using 'standardised patients' (played by actors or role-players who have been trained to react in a consistent or specific manner).

Peer-group meetings are an excellent forum for you to discuss, in confidence, video consultations recorded in your surgery or using commercially available teaching packages.

Book and web resources relevant to the GP consultation can be found in the curriculum section "Being a General Practitioner".

Balint groups

The Balint group¹ is a highly developed and tested method of small-group consultation analysis that aims specifically to focus on the emotional content, not just of single consultations but of ongoing doctor–patient relationships. Many doctors who have had the experience of Balint training attest to the lifelong benefits that it can bring in terms of interest in patients' lives, self-knowledge, job satisfaction and prevention of 'burn out'.

Learning with other healthcare professionals

Consultations are a rich learning resource that can trigger multidisciplinary discussion about consulting skills, patient management, ethics, evidence-based practice, clinical guidelines, and many other things. This can be achieved by observing or being observed during a live consultation, using role-play, or watching recorded consultations. Emerging integrated care pathways and multi-professional team meetings offer valuable means of learning from the wider team, including social workers and secondary care consultants.

¹ Balint M. *The Doctor, the Patient and the Illness* Edinburgh: Churchill Livingstone (1986)

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Understanding and use of decision aids
- Confidentiality and disclosure of medical records
- Advance care and decision-to-treat plans.

Clinical Skills Assessment (CSA)

- An older woman asks about options for euthanasia when her condition worsens. A hospital letter confirms her diagnosis of motor neurone disease
- A young person with diabetes has repeated admissions with ketoacidosis after ignoring instructions on managing her insulin
- Routine HRT check for 68-year-old woman with rheumatoid arthritis.

Workplace Based Assessment (WPBA)

- Tutorial on dealing with angry patients
- Significant event about a patient who complained that you missed their diagnosis of bowel cancer
- Audio COT on telephone consulting skills.

Equality, Diversity and Inclusion

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to equality, diversity and inclusion by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

Summary

- Supporting equality, diversity and inclusion involves recognising, respecting and valuing differences to create a cohesive community and working culture, for the benefit of organisations and individuals
- The Equality Act (2010) legally protects people from discrimination and aims to reduce socio-economic inequality, prohibit victimisation, eliminate discrimination and to increase equality of opportunity
- It is unlawful to discriminate against someone because of age, disability, gender reassignment, marital or civil partnership status, pregnancy and maternity, race, religion or belief, sex or sexual orientation
- We must be aware of our own judgements and reflect on how our practice could encourage or inadvertently discourage equality and diversity
- It is important to be able to raise issues and challenge colleagues should any behaviour lead to discrimination.

Emerging issues

The National Health Service (NHS) is designed to improve, prevent, diagnose and treat both physical and mental health problems for every individual it serves with equal regard. This is irrespective of gender, race, disability, age, sexual orientation, religion, belief, gender reassignment, pregnancy and maternity or marital or civil partnership status. The NHS also has a wider social duty to promote equality through the services it provides, especially to groups or sections of society where health and life expectancy could be improved.²

The Equality Act (2010) legally protects people in the UK from discrimination in the workplace and in wider society. It aims to reduce socio-economic inequality, prohibit victimisation, eliminate discrimination and to increase equality of opportunity³. Diversity involves recognising, respecting and

² The NHS Constitution 27 July 2015 p3

³ Equality Act 2010, p1 http://www.legislation.gov.uk/ukpga/2010/15/pdfs/ukpga_20100015_en.pdf

valuing individuals' differences. It aims to encourage those differences to create a cohesive community and working culture for the benefit of organisations and individuals.

The GP's role in reducing discrimination and enhancing inclusion

Working in the NHS, we have authority and influence over fellow colleagues and patients and it is important to recognise the impact we have on those around us. This is especially important when considering our duty not to discriminate against our patients or colleagues and to encourage equality and diversity⁴.

Discrimination can be defined as the practice of treating individuals less fairly than other people or groups. The Equality Act (2010) protects people from discrimination on the basis of nine 'protected characteristics':

- Age
- Disability; this includes physical and mental impairment
- Gender reassignment; this includes a person proposing to undergo, is undergoing or has undergone a process of changing their physiological or other attribute of sex
- Marriage and civil partnerships
- Pregnancy and maternity; this includes breastfeeding
- Race; this includes colour, nationality, ethnic or national origins
- Religion or belief; this includes a reference to a lack of religion or belief
- Sex; note some people may not identify with either gender group and this is referred to as non-binary gender or non-gender
- Sexual orientation; this includes lesbian, gay, bi-sexual, transgender (LGBT) and heterosexual people.

Equality law affects all staff of a healthcare or social care organisation that provides services to the public. Services must not treat someone worse than another individual because of having one or more protected characteristics (this is direct discrimination and unlawful), for example it must not be made more difficult for someone with a protected characteristic to access their services.

Other characteristics to consider (which are not of the nine protected characteristics) include any that increase the likelihood of difficulties for individuals or groups accessing care. These include:

- Socioeconomic reasons (e.g. being homeless)
- Being a carer or dependent
- Having a diagnosis with a potentially stigmatising condition (e.g. mental health or lifestyle related conditions such as obesity or those caused by smoking, alcohol or drug use).

It is against the GMC's Good Medical Practice guidance to refuse or delay treatment because of our belief that a patient's actions or lifestyle have contributed to their condition.⁵

⁴ The NHS Constitution 27 July 2015 p14

⁵ Good Medical Practice, General Medical Council, 2013, p19

Further aspects of Equality and Diversity can be considered from the following three areas:

1. The Practitioner
2. The Patient (or carer where appropriate)
3. As part of a team

1. The Practitioner

Equality and Diversity is enabled through effective recognition of the communication needs of individual patients and colleagues. It is also important to be aware of our own judgements and to reflect on how our practice could encourage or inadvertently discourage equality and diversity (e.g. ageism may result in conditions like dementia being underdiagnosed and underreported⁶). Furthermore, we may feel we have difficulty understanding or empathising with particular individuals or groups potentially resulting in discrimination (e.g. those with a criminal history, sex workers or those with different political views).

The GMC's Good Medical Practice states 'You must not unfairly discriminate against patients or colleagues by allowing your personal views to affect your professional relationships or the treatment you provide or arrange'. Should this occur, it is important to inform them about their right to see another doctor and to ensure they have enough information to exercise that right without implying or expressing disapproval of the patient's lifestyle, choices or beliefs.⁷

It is also unacceptable to allow discrimination from a patient to go unchallenged, should they refuse treatment because of sex, race, religion, sexual orientation or any other protected characteristic.

2. The Patient

Patients need care that is in keeping with their own beliefs and values, irrespective of the religion or beliefs of the healthcare professional.⁸ Patients must also receive care that meets their communication needs – both mental and physical; all organisations in England that provide NHS care are legally required to follow the Accessible Information Standard which aims to ensure people who have a disability are provided with information that they can easily read, understand and receive appropriate support to help them communicate.

Organisations must consider in advance as well as respond to present needs of disabled patients so reasonable adjustments for the patient can be made. This could include:

- How people enter and find their way around
- What information and signs are provided
- How people communicate with staff
- Adjustments to appointment times and length.

⁶ Equality and diversity strategy 2014-17, General Medical Council, p9

⁷ Good Medical Practice, General Medical Council, 2013, p17-20

⁸ Equality and diversity strategy 2014-17, General Medical Council, p9

3. The Team

Equality and diversity encourages the promotion of inclusion as well as protects employment rights. It is important to be able to raise issues and challenge colleagues should any behaviour lead to discrimination.

Regarding the team, some areas to consider include our attitudes towards colleagues who are:

- At different positions in the health organisation (e.g. junior doctor, salaried or partners)
- Working varying shifts (locum doctors, portfolio, limited sessions or taking career breaks)
- Proportionally underrepresented (e.g. fewer doctors from lower socioeconomic backgrounds)
- From groups that have lower pass rates in examinations and assessments

Employers must treat their staff fairly and with dignity and respect. Clear equality policies should be available and staff appropriately trained. Equality and diversity data on recruitment processes and workforce should be collected to inform working practices and to ensure transparency.

How to learn this area of practice

Learning with other healthcare professionals

Primary care teams are highly sophisticated multi-professional groups. The opportunities for you to participate in shared learning with colleagues have expanded, particularly following the extension of non-medical prescribing and extensive collaborative working on long-term conditions and integrated care.

In addition, you have many opportunities in primary care to discuss equality and diversity with nurses, allied health professionals and managers, all of whom should be engaged in the practice's education and clinical governance programmes.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Disease patterns in different populations
- Awareness of protected characteristics of Equality legislation
- Genetic variation affecting response to drugs

Clinical Skills Assessment (CSA)

- Woman with raised BP in late pregnancy lives in a travelling community and cannot return to you for follow up as she is due to move on again.
- Muslim man with insulin dependent diabetes wishes to fast during Ramadan
- Young man who is a wheelchair user wants your written support in his claim of discrimination at work

Workplace Based Assessment (WPBA)

- Consultation Observation Tool (COT) on a patient with a learning disability who isn't turning up for her blood tests
- Learning log on the challenges using a sign language interpreter in a consultation with a patient with impaired hearing
- Case Based Discussion (CbD) about a patient who requested a termination, after the doctor she initially consulted refused to refer her.

Evidence Based Practice, Research and Sharing Knowledge

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to evidence-based practice, research and sharing knowledge by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

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Summary

- Evidence-based healthcare involves using scientific rigour to appraise evidence from a wide range of sources to best benefit the patient or the service. Primary care research can enhance understanding about the causation, prevention and treatment of disease, which can in turn guide effective and relevant health policies and practice
- As a GP, you should be able to understand and communicate the results of relevant population-level research, and to decide whether the findings are applicable to your own patients. In particular, you should be able to effectively communicate risk
- Whilst being able to adopt a non-judgmental, evidence-based approach, it is essential to adopt a collaborative approach to care. This requires taking into account the patient's values, priorities and circumstances, the community, and the healthcare setting
- Be aware of individual bias (including unconscious bias) in interpreting data, and follow the GMC's Good Medical Practice guidance in respecting culture, disability, religion, gender, sexuality, social and economic status
- As learners and teachers, every GP should be equipped to share knowledge with others through, for example, teaching, mentoring and supervision.

Knowledge and skills guide

As a GP, you are expected to understand the principles, strengths and limitations of evidence-based practice. The process of evidence-based practice was defined in the Sicily statement, 2003⁹. It involves five steps:

1. Translation of uncertainty into answerable questions
2. Systematic retrieval of the best evidence available
3. Critical appraisal for validity, clinical relevance and applicability
4. Application of results in practice
5. Evaluation of performance (at an individual or organisational level)

This topic overlaps with others and, in particular, should be considered in conjunction with the following RCGP Topic Guides:

- Consulting in General Practice
- Improving Quality, Safety and Prescribing
- Population Health

Transferrable research and academic skills

As a GP, you will need to acquire the research and academic skills that are necessary to keep up-to-date with progress in your field and to aid your decision-making. These skills may be applied in many areas of practice, including:

- the clinical management of patients, including treatment, referral, and acute care;
- dealing with uncertainty (through the use of best available evidence);
- challenging established practice and abandoning ineffective practices;
- prescribing;
- enabling safer working systems;
- improving the quality of health promotion and preventive medicine in your practice;
- audit and quality improvement within your practice or organisation;
- lifelong learning;
- improving population health, through engagement in activities ranging from local healthcare commissioning and public health policy to global climate change and sustainability; and
- primary care research, management, medical education or specialist roles.

⁹Dawes M, Summerskill W, Glaziou P *et al.* Sicily Statement on evidence-based practice *BMC Medical Education* 2005: 5; 1

A GP is expected to understand basic research methodology (e.g. the difference between qualitative and quantitative data, and studies using social science methods as well as bioscience) and how different types of research activity may contribute to patient care. This includes:

- Qualitative and quantitative research:
 - differences in forms of research and when each is appropriate;
 - patient factors requiring both quantitative and qualitative analysis (e.g. concordance with treatment); and
 - techniques such as pilot studies, questionnaire design, field observations, interviews, focus groups and analysis of transcripts of narrative material; ethnography and observation, action research, case study; consensus methods such as Delphi or nominal groups
- Study designs and their advantages and disadvantages including:
 - systematic reviews and meta-analysis;
 - experimental: randomised controlled double blind;
 - quasi-experimental: non-randomised control group; and
 - observational: cohort (prospective, retrospective), case-control, cross-sectional.
- The most appropriate research design to examine a hypothesis:
 - knowledge of the 'hierarchy of evidence' ranging from case reports, through case-control and cohort studies, to randomised controlled trials, systematic reviews and meta-analyses;
 - strengths and limitations of research methodologies; and
 - multi-morbidity research and its limitations
- Differences between research, clinical audit and quality improvement.

Epidemiology concepts (see also Topic Guides on Population Health and Infectious Disease and Travel Health)

As a GP, you share responsibility for the health of your local population and should understand fundamental concepts in epidemiology. These include:

- The main reasons for patients consulting in UK primary care
- Population statistics including incidence, prevalence, mortality ratios, death rates
- Differences between population and individual risk
- Risk of disease in population groups, including your own practice population
- Qualitative measurements of health and approaches to qualitative research such as focus groups, Delphi analysis, ethnography
- Decisions or interventions made in the interests of a community or population of patients (e.g. immunisation)
- Psychosocial, cultural, political, economic and other social determinants affecting evidence-based practice
- Inequalities in healthcare access and delivery.

Statistical concepts and terminology

As a GP, you are expected to know some basic statistical terminology, including the terms listed in the table below, and be able to conduct simple calculations for evidence-based practice.

<ul style="list-style-type: none">• Absolute risk (AR)• Absolute risk increase (ARI) or reduction (ARR)• Association• Bayesian probability• Bias• Blinding• Case control• Case fatality• Cohort• Confidence intervals• Confounding• Correlation• Crossover• Cross-sectional• DALY (disability adjusted life year)• Data types (categorical, ordinal, continuous)• Discrimination• Distributions (normal and non-parametric)• Event rate• Generalisability• Hazard Ratio• Incidence• Inclusion/exclusion criteria• Likelihood ratios• Mean• Median	<ul style="list-style-type: none">• Meta-analysis• Mode• Negative predictive value (NPV)• Null hypothesis• Number needed to harm (NNH)• Number needed to treat (NNT)• Odds & Odds Ratio• Positive predictive value (PPV)• Prevalence• Probability• p-values• QALY (quality adjusted life year)• Randomised controlled trial (RCT)• Range• Regression to the mean• Relative risk (RR)• Relative risk reduction (RRR)• Reliability• Risk ratio• Sampling• Sensitivity• Specificity• Standard deviation (SD)• Standardised mortality rates and ratios• Systematic review• Trends• Triangulation• Type 1 and 2 errors• Validity (internal and external)
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Critical appraisal

Your understanding of research design, epidemiology, and statistical concepts will help you to critically appraise written or graphical information such as trial results or abstracts, clinical governance data (audit, benchmarking, performance indicators) and data presented in medical journals. Further knowledge in this area includes:

- Clinical interpretation of results from common statistical tests, for example:

- analysis of variance, multiple regression, t-tests and non-parametric data (e.g. chi squared, Mann-Whitney U); and
- simple (symmetrical, skewed) distributions, scatter diagrams, box plots, forest plots, funnel plots, statistical process control charts, Cates diagrams, decision aids
- Difference between causation and correlation
- Types of bias, reliability, validity, and generalisability
- Influence of individual bias and social factors on interpretation of research results
- Evaluation of guidelines to determine how suitable they are for clinical practice (including methodology, evidence-base, validity, applicability, authorship and sponsorship)
- Strengths and limitations of surveys and local healthcare reviews.

Evidence in practice

As a GP you should be aware of the skills needed to improve population, as well as individual, health. You should apply your understanding of evidence to your own practice and set your own learning objectives based on your clinical experience.

Further knowledge and skills in this area include:

- Applicability of population-level studies to individuals and certain groups (e.g. groups commonly excluded from clinical trials, disadvantaged groups)
- Applicability of research results/conclusions to clinical practice
- Effective communication about evidence-based interventions to help patients make decisions about their health, including methods of calculating, demonstrating and explaining risk to patients
- How to search for and retrieve valid information (including using online and other resources to help your own learning)
- Influence of health economics studies on healthcare resource allocation and guidelines
- Pharmaceutical marketing
- Potential tensions between evidence-based practice and patient values/choices
- Predictive personalised care (e.g. drug treatment)
- Reasons for lack of evidence about certain interventions (e.g. rare conditions, conditions that have low morbidity or low pharmacological input)
- Recognising that poverty is a common cause of ill health and consider this when interpreting research. For example, a health outcome attributed to a certain characteristic (e.g. ethnicity) may be due to an underlying environment of disadvantage
- Role of large GP records databases (e.g. QResearch, the Clinical Practice Research Datalink etc.) and how to contribute patient data to these
- Use of decision aids and information technology in clinical and professional practice.

Screening (see also RCGP Topic Guide on Population Health)

- Information available to patients to aid decision making with regard to screening
- Population-based prevention strategies including immunisation, health screening and population screening
- Principles of screening (e.g. Wilson's criteria) and the concepts of primary, secondary and tertiary prevention; their application to screening programmes and recall systems
- Risks and benefits of screening programmes.

Sharing knowledge

As a GP you have a role in sharing knowledge with others. This may include formal or informal teaching, mentoring, supervising colleagues and peers, and education in the wider community. Underpinning this is the need for better patient care. Important principles include:

- Understanding that teaching other people involves more than imparting information
- The difference between clinical and educational supervision and the different competences required in the two roles
- Being prepared, as a doctor, to act as an educator and learner within your local community
- Approaches to effectively teach and mentor others within a team
- How to engage those you are teaching in a dialogue about their values and goals
- Techniques to adjust your own teaching style to suit the individual as well the subject, being aware that not every individual will learn in the same way
- How to give and receive effective feedback from individuals or groups, following the principles described in the General Medical Council's Good Medical Practice
- Understanding of information governance, intellectual property, legal, privacy and security issues when sharing knowledge (including via online and social media channels), particularly when this involves other people's work or identifiable information about individuals.

Ethics and governance in education and research

As a GP you are likely to participate directly or indirectly in research and educational activity which may have ethical and clinical governance implications. For example, you may be an educational supervisor or academic GP, your practice may be part of a research network, or you may be asked to assist in recruiting patients to clinical trials. Also, you may see patients who are involved in clinical trials or be asked for your professional or expert opinion on a piece of research. It is important, therefore, to understand the ethical and governance principles that underpin such activities, and have an awareness of your own attitudes, values, professional capabilities and ethics in this context.

While promoting the benefits, you should assure patients that participation in research and education is voluntary and that declining to participate will not negatively impact on their care.

Important areas of knowledge in this area include:

- Autonomy and patient choice
- Confidentiality and information governance (including relevant legislation)

- Conflicts of interest (e.g. incentives for certain interventions)
- Consent
- Ethical approval and role of ethics committees
- Impact on patients and staff of GP research
- Patient safety
- Research fraud.

How to learn this area of practice

Portfolio-based learning (e.g. the RCGP e-Portfolio) is a useful approach to manage your professional education, serving as a continually updated repository to enable your knowledge, reflections and learning to be recorded and reviewed. Learning entries may arise from a wide range of activities. These include:

- Compliments and complaints
- Critical and significant event analyses
- Discussions with peers, mentors and teams
- Feedback from teaching sessions
- Guidelines (e.g. NICE, SIGN)
- Learning events – such as attendance at lectures, courses and workshops
- Online learning and e-Learning activities
- Patient feedback surveys and engagement meetings
- Practice-based learning events or learning with a group of peers
- Quality Improvement Projects (including audits)
- Reading journals and electronic materials
- Reflection on a patient's unmet needs (PUNs) or the doctor's educational needs (DENs)
- Structured feedback from supervisors, colleagues and teams.

To become an effective and efficient professional learner, it is important to develop the habit of embedding your learning and continuing professional development (CPD) into your daily practice (in all your roles), adapting your approaches to your personal development aims and the context in which you work.

Discussions with supervisors, appraisers and mentors will enable you to recognise not only your preferred learning style but also the best learning opportunities for specific needs. For instance, new NHS guidelines can be learnt through reading documents or attendance at a lecture, but the development of a new system of care within a practice may best be achieved by learning and working with your practice team.

A good understanding of how you and your colleagues learn will not only help you in your own CPD but also enable you to help develop the whole team through group learning activities.

Work-based learning

Learning from contact with patients (including direct observation of clinical contact) is a prerequisite for good practice. It may not always be easy, however, for you to apply evidence in daily clinical practice—for example, when working with a patient who has views or values that diverge from your own. However, patients and carers will often place their trust in your advice, which is why it is important that you build a sound evidence-base to inform your decisions, gained from understanding research papers, reviews and clinical guidelines.

Many learners find it more engaging to practice critical appraisal skills within a team context (e.g. appraising and debating a guideline or research paper within a journal club). Similarly, many of your best learning opportunities may come from team discussions relating to significant event audits, audits performed in the practice or from audit data collected around the locality and used as a benchmarking tool to compare practice performance.

Additionally, working with research networks allows you to get a sense of research governance and the principles of good research practice.

Self-directed learning

Self-directed learning, reading books, journals, abstracts, reviews, and editorials, amongst other sources, will give you an excellent opportunity to engage in topics you choose yourself, guided by your own educational needs. e-Learning modules, such as the RCGP Essential Knowledge Updates, provide opportunities to learn new clinical information. Local audit group meetings may provide opportunities to learn about audit. You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (www.e-lfh.org.uk).

Multi-disciplinary learning

You can obtain useful knowledge and skills from a wide range of different professionals. This could be through direct clinical contact with other professionals providing services to your patients—for example, in clinics with midwives, practice nurses, and health visitors. Opportunities also exist through carefully reading correspondence from other professionals. Other sources include in-house or locality-based educational programmes. Multi-disciplinary team working offers the opportunity for many different staff to work together and understand each other's perspectives.

Structured learning

There are many opportunities for more formal (structured) learning, such as courses on evidence-based practice. These include research and clinical update study days, which could be offered through RCGP or other hosts, such as university departments. Your local training programme will offer updates and workshops tailored for trainees.

Academic work in general practice

Many GPs develop academic careers, in addition to their clinical work. This can be done through specific academic training posts, developed jointly by postgraduate/workforce deaneries and universities, or through becoming tutors in undergraduate medicine and developing academic research skills related to that. There are pathways for entering academic practice after getting your Certificate of Completion of Training (CCT), and you can get more information on this through the RCGP.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Interpretation of prescribing data audit and prioritising changes
- Calculating and explaining common terms used in risk communication such as ARR, RRR, NNT and NNH
- Interpretation of graphical and tabular data

Clinical Skills Assessment (CSA)

- Discussion with a patient who is unsure about whether they should start on a statin, after they have been identified to have a 10-year cardiovascular risk of 15%
- Phone call: a father wants to know why an antibiotic was not prescribed during an earlier consultation for his child, whom now has acute otitis media
- An elderly woman with well-controlled hypertension has been identified by a practice audit as having atrial fibrillation – but she is not taking anticoagulation therapy.

Workplace Based Assessment (WPBA)

- Log entry reflecting on the visit of a pharmaceutical company representative promoting a specific drug
- Audit of your antibiotic prescribing against current national guidance and evidence
- Consultation Observation Tool (COT) discussion about the risks and benefits of Hormone Replacement Therapy (HRT) for a perimenopausal woman.

Improving Quality, Safety and Prescribing

About this topic guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you to understand important issues relating to improving quality, safety and prescribing by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

Summary

- It is an essential part of your professionalism as a doctor to regularly review the standards of practice and care that you and your team provide. Improving patient safety and quality are fundamental to reducing the risk of preventable injury, suffering, disability and death and are necessary to enhance the experience and outcomes of care
- The working environments, systems and behaviours of those working in health can all influence patient safety. Working in partnership with patients and carers and promoting an organisational culture that allows everyone to be honest (and raise concerns openly) is an essential part of sustaining a safe working environment
- Clinical Governance is the system through which organisations are accountable for continuously improving the quality of care and maintaining high standards. Understanding how to apply tools and metrics to monitor this is key to improving the quality of care
- Quality improvement skills are now regarded as essential for every doctor. These involve the application of a systematic approach that uses specific, evidence-based techniques to improve and maintain quality
- Safe, effective prescribing and monitoring of medications (and other healthcare interventions) is essential to ensure high-quality, safe care. Patients are vulnerable to mistakes being made in any one of the many steps involved in ordering, dispensing and administering medication and other healthcare products.

Knowledge and Skills Guide

Patient Safety

The duties of every doctor registered with the General Medical Council begin with making the care of the patient your first concern¹⁰. Patient safety includes the prevention of errors and adverse effects

References

¹⁰ http://www.gmc-uk.org/guidance/good_medical_practice/duties_of_a_doctor.asp

to patients associated with health care¹¹. A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care. Patient safety is fundamental to reduce risks of preventable injury, suffering, disability and death. Patient safety integrates into all areas of health care and is key to improving quality.

Quality in general practice can be considered in terms of the following six areas:

1. Safety: avoiding injuries to patients from the care that is intended to help them
2. Timeliness: reducing waits and sometimes harmful delays for both those who receive and those who give care
3. Effectiveness: providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit
4. Efficiency: avoiding waste, including equipment, supplies, ideas and energy
5. Equality: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socioeconomic status
6. Person-centredness: providing care that is respectful of and responsive to individual patient preferences, needs, and values¹².

One of the greatest challenges in healthcare is delivering safer care in complex, pressurised environments where adverse events, including unintentional but serious harm, can occur¹³. There is, on average, a 1 in 300 chance of a patient being significantly harmed by their healthcare¹⁴ and adverse events may result from problems in practice, products, procedures or systems. Safety studies show that worldwide about 20-40% of all health spending is wasted due to poor-quality care resulting in additional hospitalisation, litigation costs, infections acquired in hospitals, disability, lost productivity and medical expenses¹⁵.

It is important to be aware of each individual's own capabilities, values, ethics and accountability. There may be ethical tensions inherent in governance processes and resource allocation. Personal health and well-being must be maintained (e.g. being immunised against common or serious communicable disease where appropriate). It is important to protect patients and colleagues by managing risk while adhering to GMC fitness to practise guidance.

The working environment, systems in place (including IT, the quality of data entry and communication between professionals) and behaviours of those working in health can all influence patient safety. It is important to review and reflect on the standards of practice and the care that is provided. The diversity of practices and the variation in patient demographics means a variety of measures is important for a broad, balanced view.

Clinical Governance

¹¹ www.who.int/patientsafety/en

¹² Crossing the Quality Chasm: A New Health System for the 21st Century, The Institute of Medicine, 2001

¹³ WHO Patient Safety Curriculum Guide: Multi-professional Edition, 2011, WHO Library Cataloguing-in-Publication Data, Printed in Malta, p. 8

¹⁴ www.who.int/features/factfiles/patient_safety_facts/en/index7.html

¹⁵ www.who.int/features/factfiles/patient_safety_facts/en/index6.html

Clinical Governance is the system through which organisations are accountable for continuously improving the quality of services and standards of care. This involves recognising and responding to practice variation, understanding Quality Improvement (see further below) and applying key tools such as clinical audit, significant event analyses and improvement methodology. Patient safety incidents, near misses and complaints are part of a jigsaw of information that can be used to share and learn lessons. Understanding how to monitor and when to apply tools and metrics to improve the quality of care is a key skill that should be learnt and developed, this is essential for personal and collective professional development.

Working with patients and carers and promoting an organisational culture that allows them and all staff to be honest and raise concerns openly is essential. Some patient groups may be more at risk due to characteristics such as language, literacy, culture and health beliefs.

When risks to safety happen, immediate action must be taken (e.g. an error in patient diagnosis, inadequate resources or a colleague who is not fit to practice and is putting patients at risk). Where appropriate:

- Record or report the concern or incident
- Offer help in emergencies
- Admit when an error has occurred
- Communicate openly to those involved
- Apologise and explain fully to those affected
- Advise on how patients can raise issues or complain
- Personally reflect and share any learning.

Quality and safety within the NHS in England, Scotland, Wales and Northern Ireland is managed by devolved regulatory organisations. The Care Quality Commission (CQC) oversees the quality of healthcare in England. In Scotland the role of the CQC is fulfilled by the Care Inspectorate (www.careinspectorate.com) and in Wales by the Care Standards Inspectorate for Wales (www.cssiw.org.uk). In Northern Ireland, the role is carried out by the Regulation and Quality Improvement Authority (RQIA) (www.rqia.org.uk), which includes registration of providers including GP practices.

Other organisations such as The National Institute for Health and Care Excellence (NICE) and the Scottish Intercollegiate Guidelines Network (SIGN) play an important role in the safety and quality of clinical interventions and patient pathways.

Prescribing

The term 'prescribing', as used in the RCGP curriculum, describes many clinical activities closely related to safety and quality, including prescribing medicines, devices, dressings and other products, as well as advising patients on the purchase of over the counter medicines and other remedies. Prescribing may also be used to describe written information provided for patients (information prescriptions) or advice given¹⁶. This topic guide will mainly focus on illustrating the general

¹⁶ www.gmc-uk.org/guidance

principles around the prescribing of prescription-only medicines – please refer to other topic guides for condition-specific treatments.

Prescribing and monitoring of medications and other products needs to be understood, developed and explored to ensure high-quality, safe care. Unsafe prescribing practices and prescribing errors are a leading cause of patient safety incidents across the world¹⁷. This includes adverse reactions to medications which can be defined as any response that is noxious, unintended and occurs at doses used for prophylaxis, diagnosis or therapy¹⁸.

Patients are vulnerable to mistakes being made in any one of the many steps involved in ordering, dispensing and administering medication and other products.

The causes of medication errors include a wide range of factors including:

- i. inadequate knowledge of patients and their clinical conditions
- ii. inadequate knowledge of the medications
- iii. calculation errors
- iv. illegible handwriting on the prescriptions
- v. confusion regarding the name of the medication
- vi. poor history taking¹⁹

When prescribing, it is essential to follow the law and GMC guidance²⁰ and to take account of licensing and local prescribing guidance as well as other relevant regulations. This includes clinical guidelines published by:

- NICE (England) and SIGN (Scotland)
- Scottish Medicines Consortium and Health Improvement Scotland (Scotland)
- Department for Health, Social Services and Public Safety (Northern Ireland)
- All-Wales Medicines Strategy Group (Wales)
- Medical royal colleges and other authoritative sources of specialty specific clinical guidelines
- The British National Formulary (BNF) and the BNF for Children.

The process of prescribing requires:

- A targeted assessment of the patient and other information sources (e.g. the medical record and carers) to elicit sufficient knowledge of the patient and their conditions, and all medication they are taking (including over the counter treatments)
- An appropriately detailed understanding of the patient's history, including any previous adverse reactions to medicines and recent use of other medicines (including over-the-counter and herbal medicines, illegal drugs and medicines purchased online)
- Wherever possible, an agreement with the patient and their carers on the treatment proposed, appropriately explaining:

¹⁷ www.who.int/patientsafety/en

¹⁸ World Health Organization. International drug monitoring-the role of the hospital. A WHO report. Drug Intelligence and Clinical Pharmacy, 1970, 4:101-110

¹⁹ Smite J. Building a safer NHS for patients: improving medication safety. London, Department of Health, 2004

²⁰ http://www.gmc-uk.org/Prescribing_guidance.pdf_59055247.pdf

- expected benefits and risks, including serious and common side effects;
- what to do in the event of a side effect or recurrence of the condition;
- how and when to take the medicine and how to adjust the dose if necessary (or how to use a medical device);
- duration of treatment; and
- arrangements for monitoring, follow-up and review, including further consultation, blood tests or other investigations, processes for adjusting the type or dose of medicine, and for issuing repeat prescriptions if appropriate (e.g. DMARDS, warfarin, lithium)
- That the prescription is in the patient's best interests (including potentially dependent medications e.g. opioids, benzodiazepines and z-drugs)
- The right patient is issued with the correct prescription
- The correct dose is prescribed (particularly if the dose has previously varied e.g. in children)
- The prescription is clear and legible in accordance to statutory requirements
- Accurate and timely documentation on the patient's record
- Preparation of the prescription for authorisation by staff who are competent to do so
- Reviews by a suitable healthcare professional at an appropriate time, including monitoring of the patient's condition and confirming that the medicines are being taken as directed and are still needed – as well as being effective and well-tolerated.

Further points about prescribing can be considered in relation to the following three areas:

- The Prescriber
- The Patient (and/or carer where appropriate)
- As part of a team and the wider system

The Prescriber

As a prescriber, your role is to:

- Recognise and work within the limits of your competence
- Maintain and develop your knowledge and skills in pharmacology, therapeutics and medicines management relevant to your role and prescribing practice
- Be responsible for all prescriptions signed and for decisions and actions when prescribing, including if prescribing at the recommendation of another healthcare professional
- Avoid prescribing for yourself or anyone with whom you have a close personal relationship wherever possible
- Be aware of your own prescribing practice (using local data where appropriate) and the potential influence and expectation from peer, patient and commercial pressures
- Consider the benefits, impacts and risks of prescribing in the following situations:
 - via telephone, video-link or online;
 - signing prescriptions generated by others;
 - generating repeat prescriptions;
 - when prescribing unlicensed medication; and

- your own previous experience of medications.

The Patient

Safe and effective prescribing always involves consideration of the patient and their unique circumstances, for example:

- Take into account prescribing in special conditions such as with patients who are pregnant, breast feeding, have renal or hepatic impairment or palliative care needs
- Provide patients with information in patient information leaflets (PILs) and other reliable sources of information (e.g. NHS Choices and resources bearing *The Information Standard* quality mark) where appropriate
- When prescribing, consider whether requests for repeat prescriptions received earlier or later than expected may imply poor adherence which could lead to inadequate treatment or adverse effects
- It is important to apply effective strategies for communicating about and reducing the risk of dependency or addiction to medicines where this may occur (e.g. opioids, benzodiazepines, GABA drugs) as well as supporting and managing patients who have become dependent on medications, seeking specialist advice and intervention when appropriate
- If you consider that a requested prescription would not be of overall benefit, you should explore the reasons for the request with the patient or carer. If you still consider the prescription would not be of overall benefit, or is likely to be harmful, you should not prescribe it and should explain the reasons for your decision. You should also explain what other options are available (including the option for the patient to seek another opinion)
- Where patients do not take a medicine as prescribed, a discussion to understand the reasons for this should take place and any further information or reassurance provided where appropriate. The aim should be to reach a shared understanding and an agreed course of treatment the patient is able and willing to adhere to.
- Consider the impact of polypharmacy and, where appropriate, consider support structures such as carers, district nurses or the use of dosette boxes
- Under current rules, the NHS only accepts responsibility for supplying ongoing medication for temporary periods abroad of up to three months. If a patient will be abroad for longer, then the patient should be given a sufficient supply of their regular medication to enable them to get to their destination and find an alternative supply
- If prescribing for patients who are going abroad or who are overseas, consider how the patient's condition will be monitored. Also consider whether there is a need for additional indemnity cover or registration with a regulatory body in the country in which the prescribed medicines are to be dispensed.
- Advise patients on exemptions from prescription charges where appropriate (a full list of exempted conditions is available on the NHS Business Services Authority website)
- Acknowledge the benefits of drug switching but also the potential confusion that may be experienced if the colour and shape of medicines are changed and the impact repeated switching may have on trust and compliance.

The Team and Wider System

Safe and effective prescribing also requires an understanding of the organisational systems in place for medication prescribing, issuing, monitoring and review:

- Ensure drugs are received, stored and disposed safely and appropriately
- Make use of electronic and other systems that can improve the safety of prescribing (e.g. by highlighting interactions, allergies and by ensuring consistency and compatibility of medicines prescribed)
- Work with pharmacists and consider their role in delivering medication, conducting medicines reviews, explaining how to take medicines and offering advice on interactions and side effects
- If unsure about interactions or other aspects of prescribing, seek advice from experienced colleagues including pharmacists, prescribing advisers and clinical pharmacologists
- Information about medicines should accompany patients (or quickly follow) when patients are transferring between care settings (e.g. hospital, nursing or residential placement)
- Ensure any changes to medications (e.g. following hospital treatment or due to blood or microbiology results) are reviewed and quickly incorporated into the patient's record
- Inform the Medicines and Healthcare products Regulatory Agency (MHRA)²¹ about suspected adverse reactions and incidents using the Yellow Card Scheme²². Where appropriate, inform the patient's GP and the pharmacy that supplied the medicine
- Inform the patient's general practitioner if prescribing for a patient but you are not their general practitioner
- Drug switching may be externally recommended (e.g. by specialists or Clinical Commissioning Groups) for quality reasons such as efficacy or efficiency. Consider the impact of drug switching in the patient's best interest and the impact of cost saving on the wider system
- Consider the impact antibiotic prescribing has on the wider system with regards to drug resistance

²¹ <https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency>

²² <https://yellowcard.mhra.gov.uk/>

Quality Improvement

"In order to practise medicine in the 21st century, a core understanding of quality improvement is as important as our understanding of anatomy, physiology and biochemistry"

Stephen Powis, Medical Director, Royal Free London NHS Foundation Trust, 2015

Quality Improvement requires continuous improvement through critical thinking and understanding of the complex healthcare environment, application of a systematic approach to design, and testing and implementation of changes whilst measuring and reviewing outcomes. The aim is to understand and make a positive difference to patients by improving healthcare processes and services including safety, effectiveness and experience of care.

This requires a working knowledge of:

- the principles of Quality Improvement;
- how quality improvement benefits patients, staff and organisation;
- the importance of context and organisational culture and how this impacts quality improvement work;
- the importance of safety, team work and human factors;
- the importance of involving patients and carers in quality improvement work – and how to do this effectively;
- the role of data to both assess improvement needs and measure improvements;
- the effectiveness of small cycles of change;
- the role of critical incident reporting and significant event analysis; and
- the common barriers that prevent teams from introducing a clinical quality improvement and ways to identify and address these.

All GP trainees are required to complete a Quality Improvement Project (QIP) during their GP specialty training, as part of Workplace Based Assessment for the MRCGP.

As a GP, and in order to successfully complete Quality Improvement activity, the following knowledge and skills are required:

- The role of systems in healthcare and understanding variation
- The likely differences in impact and sustainability between changing systems and changing within systems
- Management theory and change concept models used to improve system and process reliability
- The effects of equipment, environment and human factors including teamwork, culture and organisation when designing or evaluating system safety or reliability
- Application of root cause and systems analysis methods
- Systems design principles that make it easy for healthcare workers to do the right thing or to make errors
- Definition of processes, process mapping and assessment of process value
- Outcome theories relevant to quality improvement in healthcare

- Improvement models including Plan Do Study Act (PDSA) cycle and its application to healthcare
- Setting a specific improvement aim statement including how much by when
- Understanding of statistics and application of tools (e.g. run charts, process mapping, tally charts, Pareto charts, statistical process control charts, driver diagrams)
- Clinical audit cycles, their role as quality improvement tools and their limitations
- Methods for defining outcomes and linking how improving outcomes are linked to improving processes
- Rationale for predicting outcomes before the test
- Methods and practices for implementing a change, spreading, evaluating and sustaining improvement
- Understanding stakeholders and the features of effective team communication and ways to influence others (i.e. adopting an approach that is safe, inclusive, open, seeking common goals and consensus seeking).

How to learn this area of practice

Work-based learning

It is essential that GP trainees gain a good understanding of quality improvement, prescribing and patient safety before completing training. Primary care settings, both inside and outside the practice, are ideal environments to learn and apply the key principles.

All GP trainees should complete a quality improvement project relating to patients in their training practice and actively contribute to the practice's significant event audit meetings. Recognising this as an opportunity for reflection as well as possible celebration of good care is a particular feature of primary care teams.

As a GP specialty trainee you should take the opportunity to visit your local primary care commissioning organisation or health board, in order to understand the role of clinical governance leads. Observing a governance committee would help you in understanding their associated processes. This may change over time with the impact of practices working together as federations and, in England, with the formation of Sustainability and Transformation Plans (STPs) and changes to Clinical Commissioning Groups.

Observing the systems developed by a practice to manage repeat prescribing and exploring the team's decisions about to manage risk in this process can provide valuable insights. It is also worthwhile considering the variation in impact and uptake of NICE guidance. Likewise, the processes that occur during a consultation when a decision to refer is made, as well as the practical systems in place to achieve the referral, are ideally explored within the primary care setting. Reflecting on cases that illustrate a delay in diagnosis using tools such as Significant Event Analysis (SEA) can help in understanding the complex process of diagnosis, within both the primary and the secondary care setting.

Learning about the differences between primary and secondary care will help the specialty trainee gain a broader understanding of the principles and practice of clinical governance and how to maximise benefit for patients. There should be opportunities to undertake clinical audits and critical event analysis with hospital colleagues.

Root Cause Analysis (RCA) is the standard risk tool used in secondary care and familiarity with its application can be best observed in this setting. Specialty trainees should be able to describe the particular role of risk managers in acute trusts and this is best appreciated while in this environment.

The primary/secondary care interface is especially vulnerable to patient safety incidents. Observing and understanding how different systems and processes manage this and other key transitions of care (e.g. between health and social care) can often reveal areas for quality improvement.

Learning with other healthcare professionals

Primary care teams are highly sophisticated multi-professional groups. The opportunities for you to participate in shared learning with colleagues have expanded, particularly following the extension of non-medical prescribing and extensive collaborative working on long-term conditions and integrated care.

In addition, you have many opportunities in primary care to discuss clinical governance with nurses, allied health professionals and managers, all of whom should be engaged in the practice's education and clinical governance programmes.

Unscheduled care in the community, both in hours and out of hours, is provided by a variety of different contractors utilising the skills of practitioners such as paramedics, emergency care practitioners, urgent care centres, crisis mental health teams and walk-in centres. These are ideal places for you to see and understand the use of skill-mix in healthcare and to compare and contrast the benefits and disadvantages of each option, including the usage of telephone calls triage and calls using clinical pathways (such as the 111 service)

Examples of how topics may be tested in the three parts of the MRCGP

Applied Knowledge Test (AKT)

- Drug monitoring requirements
- Safe prescribing in multi-morbidity
- Controlled Drug regulations.

Clinical Skills Assessment (CSA)

- Your practice nurse sustains a needlestick injury while taking blood from an intravenous drug user
- An elderly woman whose INR is within the therapeutic window for only 40% of the time attends for review
- A middle-aged man who has recently registered attends for a review of his repeat medication which lists nine different medications.

Workplace Based Assessment (WPBA)

- Log entry about a significant event in which you have been directly involved
- Case discussion on the workflow of blood results for patients taking DMARDs to minimise the risk of harm
- Completing a Quality Improvement Project (QIP) on a locally-identified need, identifying intended outcomes, implementing the changes, measuring their impact and disseminating your learning.

Leadership and Management

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to leadership and management by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

Summary

- The fundamental purpose of clinical leadership is to improve health outcomes and quality of care for your patients, so it is an essential part of being a doctor
- Your own personal characteristics and skills determine your ability as a leader and team manager and has a direct influence on the care your patients receive
- Leading and managing improvement in healthcare systems is just as important as, and complementary to, acting on behalf of an individual patient. Effective primary care requires the co-ordination and commitment of a multi-professional team working in partnership with patients
- Leadership is everyone's responsibility and there is a wealth of evidence to show that a well-led organisation is a safer place to work and to receive care
- GPs play a growing range of leadership and management roles in the NHS, from running a practice through to leading GP federations, commissioning groups and integrated care organisations.

The role of the GP as a leader and manager in healthcare

In the 'Tomorrow's Doctors' (2009) the GMC stated that "It is not enough for a clinician to act as a practitioner in their own discipline. They must act as partners to their colleagues, accepting shared accountability for the service provided to their patients. They are also expected to offer leadership and to work with others to change systems when it is necessary for the benefit of patients."

Good leadership practice has a direct impact on safe and effective patient care. The culture established by the leaders of a healthcare organisation is essential to enable a team that is able to work together in order to achieve the best outcomes for all patient populations. Being able to share knowledge within teams and the wider community (education, mentoring or change management) is a central principle of shared leadership.

The GMC Generic Capabilities Framework (2017) included the domain of 'Capabilities in Leadership and Teamworking'. This requires doctors in training to demonstrate that they can lead and work effectively in teams by:

- demonstrating an understanding of why leadership and teamworking is important in their role as a clinician
- showing awareness of their leadership responsibilities as a clinician and why effective clinical leadership is central to safe and effective care
- demonstrating an understanding of a range of leadership principles, approaches and techniques
- demonstrating an ability to moderate their leadership behaviour to improve engagement and outcomes
- appreciating their leadership style and their impact on others
- thinking critically about decision making, reflecting on decision-making processes and explaining those decisions to others in an honest and transparent way
- supervising, challenging, influencing, appraising and mentoring colleagues and peers to enhance performance and to support development
- challenging and critically appraising performance of colleagues, peers and systems
- promoting and effectively participating in multidisciplinary, interprofessional teamworking
- understanding and appreciating the roles of all members of the multidisciplinary team
- promoting a just and fair, open and transparent culture
- promoting a learning culture

Emerging issues

The UK population is changing and there are new and an ever-increasing ability to treat and manage illnesses that previously caused great disability or death. At the same time, people are living longer with increasing levels of long term conditions and limited resources within the NHS. Therefore, in order for a health service to provide comprehensive healthcare to such a population, a health service needs to change. GPs must keep up-to-date with and shape the future plans for the NHS, understanding how each part of the health service is working to deliver the planned outcomes.

As a clinician at the frontline of health services, you will need to understand not only how to work within systems of healthcare but also how to work with those systems for the benefit of your patients. This will require an understanding of the context, structures and processes in and by which care is delivered. This goes beyond that of your specific clinical role.

As a GP you have a wider social responsibility to use healthcare resources economically and sustainably. In addition to their business and employer responsibilities in local practices, GPs also perform a growing range of leadership and management roles in other NHS organisations.

Patients and staff will look to GPs to influence and help determine the future direction of services; in leading and managing change there is a need for you as a GP to understand yourself, how you can work effectively with your teams and others, and how to take people with you. This means contributing to the well-being of yourself, your colleagues and your patients through good management of all involved in the provision of care, and the design of robust systems that encourage good care and effective, sustainable and environmentally sensitive use of resources.

Leadership frameworks.

The Medical Leadership Competency Framework: Enhancing Engagement in Medical Leadership (2010) was jointly developed by the Academy of Medical Royal Colleges and the NHS Institute for

innovation and Improvement. It describes the leadership competences that doctors need to become more actively involved in the planning, delivery and transformation of health services.

- The *Healthcare Leadership Framework* which can be viewed at www.leadershipacademy.nhs.uk, is built around delivering a service to the patient and founded on the concept of 'shared leadership'. There are targeted development programmes named after well-known leaders—Edward Jenner, Mary Seacole, Elizabeth Garrett Anderson, Nye Bevan—supporting all levels of experience and challenge.

In '*Developing People - Improving Care*' the National Improvement and Leadership Development Board (2016) provided a national framework for action on improvement and leadership development in NHS-funded services. It identifies 'Five Conditions' for improving care:

1. Leaders equipped to develop high quality local health and care systems in partnership
2. Compassionate, inclusive and effective leaders at all levels
3. Knowledge of improvement methods and how to use them at all levels
4. Support systems for learning at local, regional and national levels
5. Enabling, supportive and aligned regulation and oversight

Knowledge and skills guide

Many GPs take on the additional challenge and responsibility of running their own practice, acting as the employer of a team of administrative and clinical staff and taking on financial responsibility for their business. This requires GPs to develop a wider range of business and management capabilities than doctors in most other medical specialties.

Ethical Principles of leadership and management

This includes the knowledge and application of principles such as beneficence, non-maleficence, justice, autonomy to everyday leadership decisions.

Common leadership and management issues arising in general practice

There should be a working knowledge of following topics. Although this is not an exhaustive list, it includes:

- Equality and diversity including disability registration, rights and access, discrimination law including race, gender, disability, age, sexual orientation
- Probity e.g. gifts, conflicts of interest, financial probity, effect of payment by results such as referral management and other targets
- NHS Complaints procedure and principles, litigation and medical negligence and raising and acting on concerns about patient safety, whistleblowing.
- Poor performance (NCAS, LMC, Deanery, GMC, primary care organisation, Occupational Health)
- Welfare of practitioners such as health, conduct issues.

National regulations, contractual and legal frameworks

- Medical indemnity applied to primary and secondary care including medical negligence

- Other Acts and regulations relevant to medical practice including (but not limited to):
 - Access to Medical Records – children, deceased, compensation, research, what to withhold
 - Children's Act
 - Controlled drug regulations including register, prescribing, storing, destruction
 - Data protection – Caldicott principles, GDPR, record-keeping, legal basis and consent models for information sharing, lost records, privacy and fair processing notices, sharing electronic records, storing and destroying medical records
 - Driving regulations – duties in relation to advising patients on fitness to drive and DVLA regulations
 - Health and Safety at work regulations relevant to general practice including infection control, vaccine storage, decontamination/spillage (COSHH regulations), safe practice and methods in the working environment relating to biological, chemical, physical or psychological hazards, which conform to health and safety legislation
 - Mental Health Act
 - Misuse of Drugs
 - NHS Prescription regulations
 - Performers List/Health Care Board regulations
 - Removing patients from a List.

Administration

- Death and cremation certificates including regulations on completing certificates, when to refer to the Coroner/Procurator Fiscal
- Insurance certificates including for life insurance, critical illness insurance (Personal Medical Attendant's reports), travel insurance
- Notification of infectious diseases (see RCGP Topic Guide *Infectious Disease and Travel Health*)
- Private certificates/medicals – principles such as disclosure of information e.g. firearms, insurance cancellation, probation, adoption, critical illness cover, fitness to fly/travel
- Registration including visual impairment, disability
- Relevant benefits and allowances (e.g. DS1500, maternity benefits/MAT B1 forms)
- Relevant regulations for Mental Capacity and Mental Health Acts
- Statements of Fitness to Work certificates and related sickness regulations such as Statutory Sick Pay, Employment Support Allowance, principles of returning to work.

Practice management and business matters

You should have a working knowledge of:

- Contract requirements such as clinical outcome frameworks and enhanced services.
- External assessment and inspections (e.g. CQC, training inspections, Care Inspectorate)
- Federations and GP networks
- Financial aspects of a medical practice (e.g. interpreting simple profit and loss accounts, a balance sheet, sources of income and expenditure)

- Freedom of Information and information governance including Caldicott guardians, management of data, confidentiality
- Information technology to facilitate clinical and business practice (e.g. chronic disease surveillance, audit, financial management)
- Key issues of being self-employed, including partnerships and locum work
- Key issues of employing or being employed (e.g. as salaried doctor, or doctor in training)
- Legal and contractual frameworks for provision of primary care services in all four nations
- Patient Participation Groups
- Patient registration and eligibility for NHS care
- Pensions
- Practice development plans and strategy
- Premises management (e.g. leases, insurance, fire regulation)
- Principles of commissioning, including roles of GPs as commissioner and provider
- Principles of employment regulation including appointment, discrimination, redundancy, dismissal. Occupational health for staff including immunisation, ill health, infectious disease
- Principles of partnership agreements
- Provision of additional services (e.g. dispensing medication, travel clinics)
- Record keeping - clear, accurate, legible and contemporaneous record keeping, amending records
- Staff development, training and appraisal
- UK health priorities and regional and local variations
- Workload issues and Major incident planning and the role of the GP.

How to learn this area of practice

Work-based learning

Undertaking a leadership activity provides an opportunity for trainees to provide evidence linking to leadership and teamwork. This will provide a deeper level of integration within the organisation, benefits for the practice, for example system changes leading to greater efficiency, and benefits for patients, relating to improvements in patient safety.

Doctors will enter GP training with a range of experience in leadership and it is important for them to consider, in conjunction with their clinical and educational supervisor, how to develop these skills over the course of their GP training and beyond. It is important that an environment is created to encourage leadership activities, facilitating the process and providing opportunities and support, with an openness to feedback.

Suggested activities might include –

- Chairing meetings
- Running and educational session
- Designing clinical protocols or pathways of care

- Producing information and resources for patients e.g. Webpages or leaflets

Quality Improvement Projects

The GMC expects all doctors to take part in systems of quality improvement. Quality improvement projects should be led by trainees, supported by their educational supervisor and include working as a team with other members of the practice to create a sustainable change.

The topic for a 'Mini-QIP' could be a process or system, clinical care issue, or educational initiative that ultimately has an impact on the safety of patients.

It can be harder to carry out quality improvements in secondary care in a short timescale due to the larger scale and complexity of the organisation – but it is possible to become involved with how changes are introduced. If you have the opportunity to speak to or shadow someone introducing a project you can learn from observing how service changes can be carried out even in a large organisation.

Self-directed learning and formal learning

You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (e-lfh.org.uk).

Learning with other health care professionals

Leadership and Quality Improvement is always best learnt with others from as wide a clinical background as possible. It is essential to get used to seeing how others (patients, clinical and managerial colleagues) see the problem at hand in order to be able to find a solution. Obtaining feedback as you learn is essential as is the ability to give supportive and constructive feedback to others.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Ethical principles working within the NHS with scarce resources
- Statutory legislation such as information governance and confidentiality
- Completing insurance claim forms from medical records.

Clinical Skills Assessment (CSA)

- Patient who is a receptionist in the practice requests sick leave because she is being bullied by the practice manager
- A man, newly diagnosed with essential hypertension, asks why the drug he has been prescribed is not recommended as the first line choice in the current guidelines
- New district nurse asks advice on the management of an uncomplicated sore throat in a housebound patient with a previous stroke.

Workplace-based Assessment (WPBA)

- A Quality Improvement Project (QIP) on looking at the number of salbutamol inhalers prescribed to adults and reviewing patients who may need additional treatment
- Learning log on leading the afternoon session on the VTS course
- Attending a course on leadership skills for the future GP.

Urgent and Unscheduled Care

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to understanding the care of people presenting in the urgent and unscheduled care context by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in urgent and unscheduled care

As a GP, your role is to:

- Make the patient's safety a priority. Recognise patients with urgent needs and act promptly and effectively to ensure correct and timely treatment and reduce the risk of death or morbidity
- Meet the additional challenge of gathering information and communicating effectively, professionally and sensitively with patients, carers and family members in urgent and unscheduled care contexts. This includes accurately assessing a patient who may be acutely ill through phone, email and face-to-face consultations
- Co-ordinate care with other services and professionals (e.g. ambulance service, community nurses and secondary care) and follow agreed protocols where appropriate, ensuring appropriate referral or follow up where necessary
- Maintain patients' autonomy in urgent situations where you may need to make decisions in their best interests. Consider the appropriateness of interventions according to the patient's wishes, the severity of the illness, any co-morbid diseases and best evidence, while managing any differences of opinion with and between relatives and carers
- Offer patients and carers tailored advice on self-management and when and who to call for help if their problem worsens or does not follow the expected course of recovery ('safety-netting').

Emerging issues in urgent and unscheduled care

The provision of urgent and unscheduled care is becoming increasingly diverse across the four UK nations and services in one area may differ substantially from another. It is therefore important that the experience attained during training is sufficient to enable the development of capabilities necessary to work in a variety of urgent and unscheduled care contexts.

The models for delivering unscheduled care (including urgent care) in different communities and regions are changing, and it is important to stay up to date with your local arrangements. Within urgent and unscheduled care, there is increasing focus on the delivery of integrated multi-

professional care delivered in the most appropriate setting, with more care being provided 'closer to home' or in the home itself. This requires a more flexible and team-based approach.

Reviews of the Urgent and Emergency care (UEC) system²³ and subsequent reports have outlined five key elements to be developed in relation to urgent and unscheduled care:

1. Provide better support to self-care
2. Help people to get the right advice or treatment in the right place, first time
3. Provide a highly responsive urgent care service outside of hospital
4. Ensure that those people with more serious or life-threatening emergency needs receive treatment in centres with the right facilities and expertise
5. Connect the whole UEC system together through networks.

Specifically, national priorities for Urgent and Emergency Care include focus on simplifying access for the public, improved mental health care, development of 111 / triage services and increasing patient access to primary care through online tools and Apps. Skills and capabilities required through training will increasingly need to be applied to these new contexts and may include calculation and interpretation of clinical prediction tools for severe illness (e.g. early warning scores).

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of deterioration, 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care and 'safety-netting' (when and who to call for help if their problem worsens or does not follow the expected course of recovery)
- Prognosis

²³ NHS England (2014) Urgent and Emergency Care Review

Symptoms and signs

- Symptoms and signs of acute illness in adults including patients with intellectual disabilities, dementia, communication problems
- Symptoms and signs of the acutely ill child (see RCGP Topic Guide on Children and Young People)
- Symptoms of acute illnesses that may indicate an acute exacerbation of a chronic disease
- Chronic or co-morbid diseases, risk factors and treatments that can influence the incidence and presentation of acute illnesses
- Important symptoms and signs that may indicate severe illness but which may be produced by other, less severe illnesses and strategies to avoid missing those severe illnesses when not obvious at initial presentation (e.g. viral symptoms in a child should not exclude the recognition of sepsis)
- Factors that may alter the presentation of symptoms and signs of severe illness, particularly when there are limitations to immune competency (including those who are pregnant, very young or very elderly, on immunosuppressive drugs or who have other health conditions)
- Features of mental health emergencies including delusional states and self-neglect
- Factors suggestive of a high risk of harm to self or others
- Features of severe or life-threatening injuries
- Features of serious illnesses that require an immediate response. Examples include:
 - Cardiovascular: chest pain, abnormal pulses (arrhythmias, bradycardia, tachycardia), hypertension, dyspnoea, oedema, hypotension, dizziness, syncope, vascular compromise haemorrhage
 - Central nervous system: reduced conscious level, seizures, dizziness, confusion, loss of sensation or function, cerebellar and vestibular dysfunction, weakness, spasticity, paraesthesia, speech and language deficits, headache, visual problems including reduced acuity, diplopia, pupillary abnormalities, visual field defects, ophthalmoplegia
 - Digestive: abdominal pain, dysphagia, melaena, bloody diarrhoea, haematemesis
 - Endocrine: lethargy, polyuria, polydipsia, pain
 - Kidney: dehydration, anuria / oliguria
 - Respiratory: wheeze, dyspnoea, stridor, drooling, choking, respiratory distress and respiratory failure, cyanosis, hypoxia, tachypnoea, low oxygen saturations, low peak flow, chest pain, haemoptysis, swelling of face or tongue
 - Sepsis: tachypnoea, hypotension, and altered mentation, fever, rashes and meningism.

When providing urgent and unscheduled care, it is especially important to consider how acute illness and distress, and the emotional effect this has on patients, carers and healthcare professionals, can affect communication.

Common and important conditions

- 'Dangerous diagnoses' – these are conditions that always require urgent action if they are suspected. Some important examples include:
 - Acute psychosis/mania
 - Aneurysms
 - Appendicitis

- Cancer (e.g. hypercalcaemia, neutropenic sepsis, spinal cord compression, superior vena cava obstruction)
- Intestinal obstruction or perforation
- Limb ischaemia
- Meningitis
- Mental health including crisis
- Myocardial infarction
- Pregnancy related issues including ectopic
- Pulmonary embolus
- Sepsis
- Stroke / CVA
- Subarachnoid haemorrhage
- Emergency conditions where the underlying diagnosis may not be known (e.g. anaphylaxis, choking, loss of consciousness, cardio-respiratory arrest)
- Emergencies that may occur in relation to certain healthcare activities (e.g. anaphylaxis or allergic reaction after immunisation, local anaesthetic toxicity, vasovagal episodes)
- Emergencies arising in patients receiving palliative or end-of-life care (see RCGP Topic Guide on *People at the End-of-Life*)
- Multi-factorial problems associated with patients who live alone and / or with multiple co-morbidities, particularly older adults, with an acute presentation may be frail and have both social and medical care needs
- Conditions associated with social, cultural and lifestyle factors that influence the incidence, severity and presentation of acute illnesses (e.g. delayed presentation and increased mental distress in cultures in relation to certain illnesses that may be considered stigmatising; or acute illness relating to omitting medication during periods of religious fasting)
- Death (both expected and unexpected) including the assessment, confirmation and the legal requirements.

Examinations and procedures

- Basic Life Support skills including performing cardio-pulmonary resuscitation (CPR), using Automated External Defibrillators and giving emergency drugs
- Examination of the relevant system or body part as appropriate
- Mental state examinations and risk assessments to ensure the safety of others
- Giving emergency or urgent medications in primary care, including oxygen, adrenaline, GTN, intramuscular or subcutaneous injections, inhalers and nebulisers.

Investigations

- ECG interpretation
- Recognise and differentiate between patients who require urgent investigation, patients who can wait longer for a routine investigation and those where time should be used as a diagnostic tool
- Near patient blood testing (e.g. glucose, haemoglobin, CRP, d-dimer)
- Peak flow measurement and interpretation
- Urinalysis tests including pregnancy test

- Vital signs measurement including respiratory rate, blood pressure and oxygen saturation.

Service issues

- Knowledge of how to access the key services, organisations and professionals, both in the community and in secondary care, who provide unscheduled care for patients in- and out-of-hours, in order to organise effective care in the most appropriate location for the patient
- Familiarity with available prescribing options, medicines and equipment in the workplace, and car / bag and maintenance of appropriate equipment and drugs
- Local and national protocols and decision support systems for urgent care (e.g. NICE / CKS and SIGN guidance)
- Options available to enable timely review of acutely ill patients to monitor their condition and determine changes to initial management plans
- Options available to maintain continuity of care for a patient undergoing an episode of acute illness, including appropriate communication between team members. This includes access to the patient's medical records and other relevant information about them
- The importance of providing appropriate documentation and records for each patient contact, which must be communicated to the next professional involved with that patient
- Appropriate use of emergency services, including the logistics of communicating with an ambulance/paramedic crew and the response time required
- Strategies for ensuring effective and appropriate communication and escalation of concern regarding deteriorating patients to ambulance services, the ED and acute service colleagues
- Clinical, administrative and pastoral support that a GP needs to provide at times of crisis or bereavement (including certification of illness or death)
- Approaches for managing patients who may make inappropriate or frequent demands on the health service (e.g. because of a disorganised lifestyle or mental health disorder)
- The role of the GP in commissioning urgent and unscheduled care in your community
- The administrative and operating processes for the urgent care organisations you may be working in. These include:
 - Information technology (IT) systems, including electronic patient records
 - The process for recording and transmitting information about patients and the outcomes of any contact with them
 - The communication systems used by the organisation, particularly regarding an urgent or deteriorating patient.

Additional important content

- Knowledge of how to access and use the processes and procedures in place to ensure patient safety in the urgent care setting (e.g. clinical governance, quality control and health and safety)
- The medico-legal issues and indemnity requirements for the urgent and unscheduled care you provide
- The importance of positive, caring and respectful attitudes to the patients, carers and colleagues with whom you work in urgent care context, many of whom you may not have met before
- Processes for reporting and analysing significant and untoward events relating to acutely ill patients

- Procedures for giving effective feedback to the urgent care organisations and colleagues with whom you have worked and trained.

Case discussion

You are working in an urgent care clinic. You take a phone call from a father who is worried about his 4-year-old daughter, Jana who has 'tummy pain'. He tells you they have recently moved to the UK from Russia and that he has already consulted another GP colleague earlier today who diagnosed an upper respiratory tract infection with mesenteric adenitis.

The father has a thermometer at home and reports that Jana's temperature is now 39.6°C. He is worried because Jana has not recovered since her appointment earlier and he asks you to prescribe some antibiotics for him to collect from a nearby pharmacy, as he has no car and feels Jana is too unwell to bring down to the clinic in a taxi or on the bus.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	Would my approach to the management of this child differ at different times of the day (e.g. if the call was at lunchtime/midnight, or at the start of my shift/at the end of my shift)? Why and how might this affect my behaviour? If Jana's parent was a regular patient I knew well, how might my management be different? Would my approach to the management of this child differ if I had a previous experience of a significant event or complaint from a similar case?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	Do I think that a doctor who is a parent would manage this situation differently from a doctor who has no children? What are my attitudes towards parents and families of a different social class or general educational achievement to my own? What experiences have I had of patients from a different ethnic background? How might my practice change as a result of this?
Communication and consultation This is about communication with patients, the use of recognised consultation	What skills do I need to consult effectively on the telephone? How might this change with a potential language barrier?

techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	<p>What questions would be reasonable to ask the parent to establish Jana's clinical condition?</p> <p>How might my consultation be different if there was very high parental anxiety or, alternatively, a lack of sufficient parental concern?</p> <p>How do I manage situations where the patient or their family are used to a healthcare system or culture that operates different to the NHS?</p>
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data including investigations	<p>What other factors do I need to know about the child?</p> <p>What other information about the family would be useful?</p> <p>How do I assess the severity of this child's condition?</p> <p>What guidelines might help?</p>
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	<p>How do I accurately assess possible signs of sepsis in children?</p> <p>Are there circumstances where I might need to be able to obtain venous access and administer IV fluids or medication? If so, am I able to proficiently do this?</p>
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	<p>What is my strategy for ensuring Jana's safety?</p> <p>How much should the anxiety of Jana's parent influence this?</p> <p>If I establish this is not urgent and does not require examining, how would I safety net?</p>
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	<p>What are the differential diagnoses?</p> <p>What would make me suggest bringing Jana in to examine as opposed to going straight to hospital?</p> <p>What advice would I give Jana's parent if I establish Jana needs immediate ambulance assistance?</p>
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	<p>If I feel I need to examine the child but the parent is reluctant to bring Jana to see me, how would I deal with this?</p> <p>How would my management differ if Jana had a complex medical history?</p> <p>If this was a non-urgent case in-hours, what services are available that could offer support?</p>
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with	<p>If I was concerned there was a safeguarding issue in this case, how would I manage this? Who else might be able to help me?</p>

<p>colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>What processes are important for continuity of care in the urgent care and out of hours setting?</p> <p>What documentation would be particularly helpful for Jana's GP? How might this differ if Jana needed referral to hospital?</p> <p>What conditions are notifiable and how would I do this?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What do I know about the incidence of specific infections illnesses in the community? What are the routes and sources for getting that information for my locality and nationally?</p> <p>What is the evidence relating to temperature control in febrile illnesses?</p> <p>What areas could be explored further for potential improvement for colleagues managing similar cases?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What are the challenges with working with different care records in different parts of the health care system?</p> <p>What can my practice do to improve patient access to urgent appointments?</p> <p>If I had difficulties or if I noticed areas for organisational improvement, how would I feedback to the organisation?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How would I explore the health beliefs of the parent? What do I need to know about this family?</p> <p>How could I support Jana's parent with self-management?</p> <p>How might I react if I find out a parent refuses to have their child immunised against measles, mumps and rubella?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How do I include the parents in the management of this situation? What questions would I ask?</p> <p>What negative influences or barriers might exist in the community that could exacerbate problems for Jana and her family?</p> <p>What community services might be available to help Jana and her family?</p>

How to learn this area of practice

Work-based learning

As a GP specialty trainee, you must gain experience of managing patients presenting with urgent and unscheduled healthcare needs, which is an important feature of both 'in-hours' and 'out-of-hours' GP care. Because there are particular features of unscheduled care that require a specific educational focus, such as the increased risk of working in isolation, the 'high-stakes' nature of clinical decisions, the relative lack of supporting services and the frequent need to promote self-care, it is important that you spend sufficient time in these environments.

There are a number of organisations involved in the delivery of urgent and unscheduled primary care including, pharmacies, dentists, 111, GP Practices, Urgent Care Centres, Out-of-Hours providers, 7-day access services and Emergency Departments (EDs or A&Es). The model of service provided increasingly varies, but there will be a need for partnership and collaboration between all agencies at the local level. As part of your training programme, you need exposure to a variety of community-based emergency and out-of-hours models.

The hospital environment can be an ideal setting for you to see concentrated groups of acutely ill children and adults. All doctors entering general practice training programmes are expected to have acquired the competences in acute care set out in the Foundation Programme Curriculum. Many doctors will have acquired additional competences during their hospital training, before entering GP specialty training. Some GP training programmes will contain placements of varying length in acute medicine and Emergency Departments that are ideal environments for learning about acutely ill people and their management. While you will have learnt cardiopulmonary resuscitation skills in the Foundation Programme (or equivalent), it is important to maintain these skills once in practice through regular updates and practical training sessions. Hospital resuscitation departments usually have excellent learning resources for you to keep up to date with these skills.

All GP trainees and GPs should have access to BLS/cardiopulmonary resuscitation courses and learning resources during their primary care placements, to help them address their learning needs.

Learning with other healthcare professionals

Teamwork is essential for the effective management of acutely ill patients in primary and secondary care. It is vital that all members of the primary healthcare team (including receptionists) understand their roles in managing acutely ill patients and contribute to the development of practice guidelines.

Acute events are an important source of material for significant event analyses and team members should be encouraged to participate in these and learn from them at both the individual and team level. Working in the acute and urgent environment will help you team members to gain valuable experience of working and learning in multi-professional settings, which will include GPs, nurses, paramedics, Emergency Department staff, etc. Examples include observing nurse practitioners or emergency care practitioners triaging patients and attending home visits with paramedics.

Formal structured learning opportunities can include organisation induction programmes (e.g. when starting to train or work in an out-of-hours GP centre), telephone consulting skills courses and e-Learning opportunities. You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (www.e-lfh.org.uk) .

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of less common presentations of CVA
- Symptoms and signs of sepsis
- Management of an epileptic seizure

Clinical Skills Assessment (CSA)

- Phone call: Paramedic asks for a routine visit to a middle-aged man who has a 4-hour history of paraesthesia in his arm. His provisional diagnosis is nerve entrapment
- House call: Young man with acute headache and vomiting. An examination is expected
- Young woman feels unwell and is sweating, lightheaded and has a rapid pulse. An examination is expected.

Workplace-based Assessment (WPBA)

- Take a history with a parent about their febrile child
- Case discussion about an elderly patient with pneumonia who has capacity and is refusing admission to hospital
- Clinical examination of an acute abdomen for possible appendicitis.

The Life Stages Topic Guides

Children and Young People

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of children and young people by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of children and young people

As a GP, your role is to:

- Provide the majority of care to children and young people in primary care. GPs are usually the first point of contact for the unwell child
- Be responsible for ensuring high quality evidence-based care for children and young people with both acute and chronic conditions, and demonstrating appropriate competence in child safeguarding
- Make every contact count, with opportunistic interventions during scheduled and unscheduled contacts in Primary Care
- Play a key role in coordinating truly holistic care through multi-professional conversations with services across health, social and educational sectors. This will have a crucial impact on the adult health and life chances of children and young adults²⁴
- Identify and support at-risk children, and adolescents who may fall through the gaps in services, particularly in the context of safeguarding and mental health. Identify vulnerable children when seeing adult patients who have experienced their own health and social problems such as domestic violence or substance misuse.

Emerging issues in the care of children and young people

The NHS has identified Child Health as a key area for education and training in General Practice. The role of the GP in commissioning, as well as coordinating services, has also recently been highlighted.

Providing the best care for child health services requires collaboration between professionals. The traditional separation of primary and secondary care services needs to be replaced by multi-professional working across well-defined clinical sectors, enabling care closer to home.

Integration with adult services is also a challenge, particularly in the context of mental health, drugs, alcohol, and safeguarding. The transition to adulthood is a time of risk and consideration should be

²⁴ *Commissioning a good child health service*. RCGP Publications. 2013

given to health promotion in adolescence, which encourages greater autonomy and ownership of future health, for example diet, exercise, and obesity.

Social determinants of health are particularly important in vulnerable sectors of society, especially with rising incidences of child poverty and inequality. GPs need to engage in reducing inequality of access to services and integrating health with social care.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

The normal child

A very important element of child health in general practice is the recognition of the range of normality in physical, psychological and behavioural development. These include:

- Normal developmental milestones and assessment of development delay, including language, gross and fine motor and social development
- Normal growth including interpretation of growth charts
- Normal maturation including puberty
- Normality in the neonatal period including screening (e.g. phenylketonuria, hypothyroidism, cystic fibrosis)
- Normality of physical development with normal variations (e.g. orthopaedic variations such as genu valgus/varus and plagiocephaly)
- Normal development of emotional and psychological maturity and normal variation in childhood behaviour
- Awareness of norms and referral standards when undertaking Newborn and Infant Physical Examination Programme (NIPE) examinations.

Symptoms and signs

A key feature of knowledge about child health is the interpretation of common symptoms and signs in different age ranges. For example, back pain or abdominal pain in childhood, adolescence and adulthood are likely to have different underlying causes and natural histories. This can have

significant and potentially serious consequences if not fully recognised when considering differential diagnoses.

Attention should also be paid to specific paediatric themes, such as:

- Behavioural problems
- Developmental problems
- Faltering growth
- Features of the acutely unwell child including fever, rashes, irritability, breathing and circulatory signs
- Mental health problems including bullying, stress and suicide.
- Adolescents and Young people aged 10-25yr as a distinct group with respect to brain development, physiology and pharmacokinetics
- Adolescence as a developmental stage and its particular issues, in particular the importance of being opportunistic in assessing mental well-being.
- Gender identity issues. Lesbian, gay, bisexual and transgender (LGBT+) patients face inequalities in their experience of NHS healthcare.

Common and important conditions

Many of the problems and diseases are classified by body system, reflecting the wide scope of general practice in the United Kingdom. There is inevitably overlap between system classifications and generic areas such as child health.

- Early and undifferentiated presentations, and recognition of a seriously ill child (and urgent intervention when appropriate)
- Acute paediatric emergencies (e.g. febrile convulsions, anaphylaxis, asthma, septicaemia, meningitis, surgical conditions)
- Urgent resuscitation in line with Resuscitation Council (UK) guidelines
- Appropriate acute and repeat prescribing and reviews
- Behavioural problems (e.g. enuresis, encopresis, eating disorders, tantrums)
- Childhood infections including exanthemata (e.g. mumps, measles, rubella, chickenpox, herpes simplex, parvovirus, Coxsackie, Kawasaki, and other infections listed under dermatological disorders below)
- Childhood malignancies (e.g. leukaemias, lymphoma, brain tumours, retinoblastoma, neuroblastoma, nephroblastoma, sarcoma)
- Chromosomal disorders (e.g. Down syndrome, Fragile X, Klinefelter's syndrome, trisomy 18, Turner's syndrome)
- Congenital abnormalities (e.g. congenital heart disease, hypothyroidism, musculoskeletal, neurological abnormalities and sensory impairment)
- Dermatological disorders in childhood (e.g. seborrheic dermatitis, atopic eczema, infections such as impetigo and fungal infections especially tinea capitis and kerions, alopecia areata, vitiligo and infantile haemangiomas)
- Diagnosis and management of diseases relating to children (e.g. asthma, diabetes, epilepsy, respiratory infections such as pneumonia, bronchiolitis, croup)
- Disease prevention, well-being and safety including in the following areas:

- prenatal diagnosis;
- health benefits of breastfeeding;
- infant feeding, effective milk transfer, and breastfeeding substitute guidelines
- healthy diet;
- social and emotional well-being;
- immunization;
- smoking;
- avoiding the use of volatile substances and other drugs; and
- minimising alcohol intake
- Faltering growth and underlying causes, including ineffective intake (e.g. due to lack of breast milk), chronic diseases (e.g. cystic fibrosis, coeliac disease), chronic infection, non-medical causes such as abuse or neglect
- GI conditions that present in childhood (e.g. appendicitis, Meckel's diverticulum, intussusception, malabsorption such as coeliac disease, cows' milk protein allergy, cystic fibrosis and the risks/treatment of iron deficiency. Inflammatory bowel disease and other chronic malabsorption conditions which might be confused with other conditions such as eating disorders)
- Immunisation in children (routine primary schedule and other immunisations, contraindications to immunisation)
- Learning disabilities in children (e.g. cerebral palsy, disorders with developmental delay, autism, dyslexia, dyspraxia, autistic spectrum disorders including Asperger's syndrome)
- Behavioural and mental health problems (e.g. attention deficit hyperactivity disorder (ADHD), depression, eating disorders, substance misuse and self-harm, autistic spectrum disorder and related conditions (see also RCGP Topic Guides on *Mental Health and Alcohol and Substance Misuse*). Risks and consequences of bullying including cyberbullying.
- Musculoskeletal problems relevant to children (e.g. inflammatory arthritides (infective, autoimmune), osteochondritis, Osgood-Schlatter's, Perthes' disease, slipped epiphysis, injuries such as greenstick fractures, pulled elbow)
- Neonatal issues:
 - Congenital abnormalities as above
 - Feeding problems (breast and bottle feeding), gastro-oesophageal reflux, hypoglycaemia
 - Jaundice (e.g. breastfeeding, haemolytic and haemorrhagic disease of the newborn, biliary atresia)
 - Respiratory problems (e.g. respiratory distress syndrome, sleep apnoea)
 - Skin disorders e.g. birthmarks, erythema neonatorum, miliaria and neonatal acne)
 - Complications of prematurity such as chronic lung disease, cerebral palsy
- Neurological problems relevant to children including seizures (e.g. febrile convulsions, epilepsy and their overlap in presentation with cardiogenic causes), awareness of rare degenerative neurological diseases (e.g. Rett's syndrome, Batten's)
- Sleep physiology and pathology of sleep disorders in infants and adolescents
- Obesity in childhood: long term health effects and interventional strategies for weight reduction
- Poisoning: accidental ingestion, iatrogenic, overdose and deliberate self-harm, and deliberate harm by carers

- Renal diseases relevant to children (including recurrent urinary tract infections, structural anomalies posterior urethral valves, renal pelvic dilatation, haemolytic uraemic syndrome; nephrotic syndrome and glomerulonephritis)
- Safeguarding children:
 - Recognition of non-accidental injury including physical, emotional and sexual abuse, and appropriate actions
 - Maltreatment and neglect, parental problems including domestic violence and abuse, substance and alcohol misuse and mental health problems
 - Recognising the significance if a child is not brought to an appointment and taking appropriate action
 - Balancing children's rights and wishes with professional responsibility to keep children safe from harm
- Sex identity and intersex, appearance of genitals including fused labia, hypospadias, clitoral hypertrophy. Risk of Female Genital Mutilation
- Teenage pregnancy, risks of sexually transmitted infections, and Child Sexual Exploitation
- Transitional issues from child to adolescent and from adolescent to adult. This applies to all children but especially those who are vulnerable such as those with gender identity issues.

Examinations and procedures

- Age-appropriate clinical examination and normal variation in biometrics
- Informed consent and assessment of competence
- Perform accurate measurements including peak flow and blood pressure
- Appropriate use of and techniques for venesection in children and young people
- Indication and administration of injections and immunisations.

Investigations

The decision to undertake investigations in children can be complex. It needs to take account of the emotional and physical impact in the context of the probability and possibility of detecting significant underlying disease.

- Appropriate investigations for common diseases need to be clearly understood (e.g. asthma, urinary tract infection)
- Prenatal diagnosis including screening available in UK for disorders such as Down syndrome, spina bifida, and structural defects (e.g. congenital heart disease, renal tract abnormalities)
- Liaison with specialist colleagues when considering invasive or complex investigations and their correct interpretation
- Appropriate use of sedation and pain relief and managing anxiety of the child undergoing investigative procedures.

Service issues

- Respect for the sensitivities of young people regarding their health attitudes, behaviours and needs; impact of attitudes to treating children and young people equitably, with respect for their beliefs, preferences, dignity and rights; issues of confidentiality and consent and sharing information with other agencies

- Appropriate autonomy and involvement of children, carers and families in care-planning and delivery; Parental responsibility and who can make decisions for a child; confidentiality balanced with the parents' need for information and shared decision-making with you as their GP, and awareness of the legal framework for consent in children and young people
- Prevalence and incidence of illness in the community and the specific circumstances of the patient and family; health care needs of the paediatric population of your community and the socio-economic and cultural features that might affect health
- Workload issues raised by paediatric problems (e.g. the demand for urgent appointments and the mechanisms for dealing with this)
- Organisation of care, including care pathways and local systems of care; child-focussed clinical governance and risk management such as safety of treatment and care, safeguarding, the use of evidence-based practice, clinical audit, effective prescribing and referrals
- Multiagency working (working across professional and agency boundaries) and the principles of information sharing, including the role of the health visitor in child health surveillance
- Appropriate use of referrals. Co-ordination of care with other primary care professionals, paediatricians and other appropriate specialists, leading to effective and appropriate care provision
- Taking an advocacy position for the child, young person or family when needed, balancing the child's rights and wishes with the professional responsibility to keep them safe from harm. This will include complex situations such as safeguarding issues and end-of-life care
- Information, advice and support to enable them to manage minor illnesses themselves, using community pharmacists and triage services where appropriate and access appropriate services when necessary
- Legal and political context of child and adolescent care. Delivering services for young people relating to access, communication, confidentiality and consent.

Additional important content

- Childhood immunisation schedules. These should be kept under review as they can frequently change
- Communication skills specific to child and adolescent health and 'three-way consulting' (consulting with both parent and child); recognition and assessment of behaviour as a form of communication; recognition of the importance of seeing adolescents alone; use of tools for structured psychological assessment in adolescents such as HEADSS
- Prescribing and advising appropriately about the use of medicines in newborn, children and young people, being competent at calculating drug doses, understanding the risks and benefits of medicines in relation to children, and cultural differences in beliefs about illness and the use of medicines. Best evidence in clinical management and prescribing of medicines for children and licensing implications
- Pain management in children
- Co-morbidities in the child, young person and family with additional vulnerability or special circumstances
- Access for young people to confidential contraceptive and sexual health advice services that are tailored to meet their needs.

Case discussion

James, a 14-year-old boy, attends your morning surgery with his parents. On reviewing his record, you discover that he has been diagnosed recently with Juvenile Idiopathic Arthritis (JIA) affecting both his knees and hips.

His parents are seeking further information from you regarding the condition, management and prognosis, as the shock of the diagnosis during their initial hospital consultation meant that they could not take in much information at the time of diagnosis. James asks you if the illness will affect his ambition to become a professional footballer – before he became unwell, he had just been selected to play for the county junior team but is now struggling to walk because of his joint pain. James' parents tell you they have stopped him from playing any sport, fearful he will damage his health.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are my own personal values and assumptions regarding this young person's diagnosis and how might these affect my judgements and behaviours? How would I manage a family complaint if they were unhappy with my support?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What happens if there is a conflict between the child's and parents' wishes? What are the ethical dilemmas?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How might I adapt my consultation to take account of the differing needs of James and his parents? How confident am I in explaining prognosis? Which consultation models would help to improve my skills in managing this case?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	How should I investigate early childhood arthropathy? Could there be a genetic element to this? What is the prevalence of early childhood arthropathy in primary care? Could I detect an arthropathy at an earlier stage?

	What do the terms 'sensitivity' and 'specificity' mean in the interpretation of laboratory investigation?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What investigations such as blood tests would be appropriate to undertake in primary care? How do you assess functional impairment in this age group?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	How would I diagnose and manage JIA (perhaps bringing in the principle of recognising acutely ill children/rare diseases)? Should I advise James to stop playing football?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	How confident am I to prescribe in this age group? How does JIA present? How do I manage patients in the long term?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	What are the risks of prescribing and monitoring disease modifying drugs in primary care? How will care be coordinated with other professionals in the practice and in other services? Would any other interventions be helpful for James at this stage?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	Which other members of the multidisciplinary team would I involve (e.g. school nurses, faith organisations, psychologist and family counsellors)? How can I work with my local paediatric services to manage a child with newly diagnosed JIA? How do we coordinate care and maintain shared responsibility rather than simply handing over care to the specialist team?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	What mechanisms exist in my practice to ensure that I am kept up to date with a diagnosis of JIA? Should I be doing more to promote an awareness of JIA in my clinical practice and how do I do this? How might resource constraints prevent me from providing the best-quality care to patients with this diagnosis?

	What might be important to consider when thinking about managing long-term illness in a child?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	What mechanisms are in place in my practice to ensure that JIA patients and their relatives are reviewed on a regular basis? How might I use my leadership skills to act as an advocate for James?
Practising holistically, safeguarding and promoting health This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.	How do I plan to follow up James and his family? How might I manage the psychological impact of his disease on James and his family? How can I manage issues around potential school absence? How do I manage the James' and his parents' ideas, concerns and expectations?
Community orientation This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.	Which voluntary sector and support organisations might be helpful to James and his family? What are the care services available in my area for children? What psychological support services are available locally to children and adolescents? Who can advise on benefits if one parent gives up working to become a 'carer'?

How to learn this area of practice

Key knowledge areas in child health include child development (starting with normality), diagnosis of acute and serious illness, and prescribing for children. Be aware of your potential lack of knowledge around minor conditions commonly seen in the community, which you may not have previously encountered in hospital settings (good examples are molluscum contagiosum, ringworm and headlice). Many conditions may not require significant intervention and it is important to recognise normal childhood findings and know when to appropriately reassure parents.

Work-based learning

Learning together to improve child health - A joint position paper on inter-professional training by the Royal College of General Practitioners and the Royal College of Paediatrics and Child Health (May

2016) suggests that trainees in general practice and paediatrics will gain from training in each other's environment, for example in joint primary care clinics.

The focus of the clinics is around a sharing of ideas and learning in both directions. The GP trainee leads the consultation for some patients; in other consultations, the child health related experience of the Paediatric Specialty Registrar allows them to be the natural lead. This balance helps to foster a culture of peer-learning.

Learning occurs on a number of different levels (e.g. clinical management of the condition, public health aspects, health promotion, case management, working with primary care nurses, etc.).

In addition to gaining experience and building competencies in consultation and clinical skills, these clinics gave trainees the opportunity to develop new insights and perspectives into the challenges and opportunities of seeing children and young people jointly within a primary care setting.

Learning together in paediatric services

Appropriate management of emergencies supported by focused learning allows acquisition of skills and some confidence in this area.

Community-based paediatrics offers a great opportunity to learn about a wide range of conditions ranging from the long-term needs of the child with complex problems, to safeguarding, neurodisability and health promotion.

Learning with other healthcare professionals

Much of the care of children in the NHS is provided by nurses, health visitors, social workers, pharmacists, physiotherapists and many others. Learning arises directly from clinical contact with these professionals – such as with midwives delivering antenatal and postnatal care, health visitors visiting children at home, or with specialist nurses managing young patients with chronic diseases. Many hold skills which should at least be understood by the doctor and not infrequently acquired in the context of multi-professional learning.

The shared experience of training and learning encourages better communication and working relationships between the members of the health care teams and will create better health care outcomes.

Structured learning

The RCGP and RCPCH provide a selection of courses across the UK in both child and adolescent health, including child health issues, child protection, immunisation and child development. This will stimulate reflection on real cases seen in your work and help you as a professional to develop the knowledge, skills and attitudes required for high-quality, collaborative care.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of normal stages of child development
- Current immunisation schedules
- Shared protocols for treating ADHD with methylphenidate.

Clinical Skills Assessment (CSA):

- A 15-year-old girl requests the contraceptive pill
- Phone call: a health visitor is concerned about the welfare of a baby in a vulnerable family. You are due to see the baby's mother later that day.
- A mother expects her three-year-old son to be potty-trained and wants to discuss why he is not.

Workplace-based Assessment (WPBA)

- Case-based Discussion (CbD) about a mother who is very emotional about her young son's diagnosis of a brain tumour when he is also in the room
- Log entry reflecting on a consultation with a teenager who appears uncooperative
- Log entry about attending and contributing to a case conference for child safeguarding
- Clinical Examination and Procedural Skills (CEPS) demonstrating a competent 6-week baby check.

People with Long-term Conditions including Cancer

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand how to provide care for people with long-term conditions, including those living with and beyond cancer, by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in caring for people with long-term conditions including cancer

As a GP your role is to:

- Work with patients, their families and carers in a collaborative manner that supports patient activation; encouraging individuals to develop the knowledge, skills and confidence to take an active role in their own self-care
- Work collaboratively with people living with long-term health conditions to agree goals, identify support needs, develop and implement plans, and monitor progress
- Move away from a disease-based model of care towards a person-centred system that takes a biopsychosocial approach, considering each person and their family holistically
- Involve the whole Multi-Disciplinary Team (MDT) to facilitate person-centred approaches to care, including the systematic gathering of information about an individual's personal experience of living with their conditions and an organisational approach to collaborative care and support planning
- Proactively encourage lifestyle changes that will reduce the risk of other health problems in those who have already developed long-term conditions, cancer or multi-morbidity.

Emerging issues in caring for people with long-term conditions, including those living with and beyond cancer

The increasing number of people living with long-term conditions is one of the biggest challenges facing our health and social care systems. GPs have a vital role to play in caring for those living with long-term health conditions and supporting those who care for them.

The increasing health burden of single and multiple long-term conditions has created the need for improved prevention and proactive models of care. It also highlights why and how people should be given greater control of their own care and the importance of breaking down the barriers to how care is accessed and provided. GPs must become familiar with evidence-based techniques and processes to enable this within their everyday practice and their teams, such as Collaborative Care and Support Planning (CC&SP).²⁵

²⁵ <http://www.rcgp.org.uk/clinical-and-research/toolkits/collaborative-care-and-support-planning-toolkit.aspx>

Around half of those people in the UK found to have cancer today will live for at least 10 years after diagnosis.²⁶ As cancer survival rates in the UK improve, new healthcare challenges are emerging. GPs need to recognise and address the ongoing needs of the growing number of people living a substantial part of their lives with and beyond cancer. The role of the GP is wide-ranging and spans the management of physical, social and psychological factors, from healthy lifestyle promotion and help with financial problems through to dealing with fatigue and detecting recurrence of disease.

The provision of truly person-centred care for patients with long-term conditions and cancer requires a whole-system approach. For this to be successful there needs to be:

- Engaged, informed individuals and carers
- Health and care professionals committed to partnership working
- Organisational and supporting processes in place
- A whole system approach which is broader than 'medicine' alone

Knowledge and skills guide

Long-term condition is defined here to mean any medical condition that cannot currently be cured but can be managed with the use of medication and/or other approaches and therapies.

This is in contrast to acute conditions which typically have a finite duration, such as an upper respiratory tract infection. There are likely to be many different interpretations of what constitutes a long-term condition. Ultimately, the best means of defining what is and isn't a long-term condition, and making decisions about care requirements, is as part of a conversation between an individual and their healthcare professional.

In relation to the care of people with long-term conditions and those living with and beyond cancer, consider the following areas within the general context of primary care:

- The natural history of the untreated condition(s) including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care and, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

For people with long-term health conditions, the interactions between and cumulative effects of multiple conditions, treatments and therapies must be considered, as well as the needs of the

²⁶ Macmillan Cancer Support. Living with and Beyond Cancer. Webpage: www.macmillan.org.uk/about-us/what-we-do/we-make-change-happen/we-shape-policy/living-with-and-beyond-cancer.html (accessed August 2017)

individual and their carers/relatives based on their circumstances. These interactions bring additional complexity to care, beyond the biomedical aspects of the specific health conditions.

Common and important conditions

Long-term conditions cover a wide range of health conditions (see definition above), including but not limited to any condition or combinations of conditions in the categories listed below:

- Non-communicable diseases (e.g. cancer and cardiovascular disease);
- Communicable diseases (e.g. Human Immunodeficiency Virus (HIV) / Acquired Immunodeficiency Syndrome (AIDS));
- Certain mental health disorders (e.g. schizophrenia, depression) and
- Ongoing defined impairments (e.g. blindness, musculoskeletal disorders).

Examples of common long-term physical health conditions include:

- Diabetes
- Cardiovascular (e.g. hypertension, angina)
- Chronic respiratory (e.g. asthma, Chronic Obstructive Pulmonary Disease (COPD))
- Chronic neurological (e.g. Multiple Sclerosis)
- Chronic pain (e.g. from arthritis)
- Other long-term conditions (e.g. Chronic Fatigue Syndrome, Irritable Bowel Syndrome (IBS), cancer) etc.

Consider the following areas in the context of long-term conditions and cancer:

Natural History of the Condition(s)

- Different trajectories of illness commonly seen in long-term conditions and cancer. These take many forms, but common trajectory patterns include stepwise (e.g. vascular dementia), exacerbations (e.g. COPD), gradual decline (e.g. frailty) and relapse/recurrence (e.g. breast cancer).
- Conditions which may become chronic through treatment or through the natural process of the disease

Service Issues

- Whole system approaches to care, including integrated care models with GPs working in multidisciplinary teams alongside secondary care, social care and others
- Active identification, surveillance and follow up
- The importance of continuity of care within organisations, teams and with individual health professionals
- The important role of third-sector providers (such as voluntary organisations, community groups and social enterprises) which can provide tailor-made support and interventions for people with certain long-term conditions (LTCs)
- Identifying and supporting unpaid carers of people with long-term conditions

Multi-morbidity

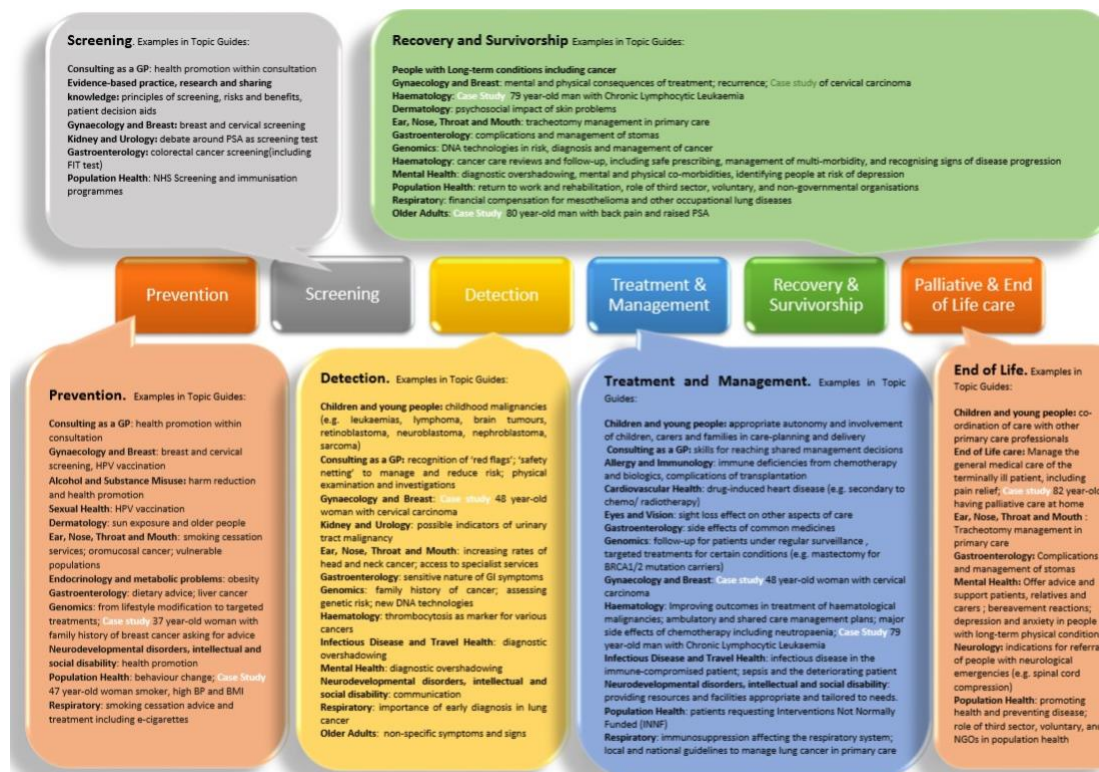
Multi-morbidity refers to the presence of two or more long-term health conditions. This includes physical and mental health conditions, ongoing conditions (e.g. learning disability), symptom complexes (e.g. frailty or chronic pain), sensory impairment (e.g. sight loss) and alcohol and substance misuse. In patients with multi-morbidity, consider:

- Opportunistic and proactive identification of polypharmacy and multi-morbidity
- Reducing the burden of multi-morbidity and treatment, including appointments, on the quality of life of the patient and their carers/family
- The possibility of coexisting mental illness such as depression and anxiety
- The possibility of one or more long term conditions disguising other conditions including cancer
- The patient's needs, preferences, priorities and goals including the role of carers and family
- Providing whole person care taking into account a patient's social, mental and physical wellbeing
- The benefits and risks of guidelines addressing single health conditions
- The benefits of an agreed personalised management plan to coordinate care

Cancer

One in two people in the UK now develop cancer at some point in their lifetime, and GPs play a vital role in preventing, diagnosing and caring for people with cancer. For examples of references to cancer across the whole curriculum, please see the Cancer in the Curriculum: Map.

Cancer in the Curriculum: Map



Living with and beyond cancer

More patients are living with and beyond a cancer diagnosis (cancer survivorship) and as a result live with the long-term effects of cancer and its treatment. These effects are wide-ranging and include, but are not limited to:

- Physical (e.g. long-term effects of surgery, chemotherapy, radiotherapy, hormone treatment, etc.)
- Psychological (e.g. adjustment, depression, anxiety, post-traumatic stress)
- Financial (e.g. loss of own/partner's job, costs of care, costs of unfunded treatments)
- Social (e.g. loss of role, educational impacts, relationship breakdowns)

Other important issues include:

- The recognition of signs and symptoms of recurrence and relapse
- Continued health promotion relating to future cancer and other health risks

Collaborative Care and Support Planning

The RCGP has endorsed Collaborative Care and Support Planning as an effective approach to increase patient activation, health literacy and self-management whilst improving some patient outcomes and health professionals' job satisfaction.

Care and Support Planning (CSP) is a systematic process, which replaces current planned reviews for people with long term conditions, and is focussed on a 'better conversation' between the person with LTC/s and a healthcare professional, enabled by preparation. The CSP begins with an information gathering appointment in which tasks and tests are collected ahead of the CSP conversation. The results of any information gathered, together with reflective prompts, are sent to the person 1-2 weeks before the CSP conversation (preparation). The CSP conversation itself has a solution-focussed and forward-looking approach which acknowledges the experience and expertise of the patient and brings together traditional clinical issues with what is most important to the individual, supporting self-management, coordinating complex care and signposting to social prescribing. Organisational processes, practice care pathways and staff/team roles and support are redesigned to achieve this.

To apply this approach successfully, a GP requires a working knowledge of:

- The benefits of the Collaborative Care and Support Planning process
- The factors influencing the relationship and dialogue between the professional and the person/carer and the core principles of communication (e.g. a partnership approach, goal setting and action planning)
- The factors that should be considered in care planning (e.g. multi-morbidity, support networks, cultural background)
- The phases of the care planning process
- The ethical and legal issues (e.g. autonomy, consent and capacity)
- The issues around personal budgets and personal independence payments

- The organisational barriers to effective Collaborative Care and Support Planning and how these impact on quality of care, including:
 - Limitations on the time available in GP appointments
 - Local/national policies and targets
 - Public sector funding policies, in particular those relating to health and social care
 - Local policies (e.g. the management of Individual Funding Requests and how this differs in the four UK nations)
- Shared decision-making processes and their application to select tests, treatments, management or support packages, based on clinical evidence and the patient's informed preferences
- Tools which can be used to measure the spectrum of skills, knowledge and confidence of individuals and the extent to which they feel engaged and confident in taking care of their condition (e.g. the Patient Activation Measure (PAM))
- Techniques and frameworks for enabling behaviour change and their application to interactions with patients with diverse backgrounds (e.g. Health Coaching).

Case discussion

Rose is 72 years old and has osteoarthritis, Type 2 diabetes and COPD. She is cared for by her daughter, but Rose also takes significant responsibility caring for her grandson, who has behavioural difficulties.

Rose's daughter makes an appointment with her GP, Dr Patel, because Rose's breathing has been 'a bit up and down'. Rose understands the importance of controlling her medical conditions but finds it hard to prioritise this when her daughter and grandson also need her support. During the consultation, Dr Patel notices that Rose's mood seems low, but the limitations of the 10-minute consultation mean she is only able to discuss this briefly.

Six months later Rose sees a different GP, Dr Price. Dr Price discovers that Rose frequently attends for emergency appointments and has missed her last two routine reviews because she had to look after her grandson. After surgery, Dr Price speaks with Dr Patel about how they can best help Rose. Their practice is implementing Collaborative Care and Support Planning, and both agree that Rose could benefit from this approach and they identify one of the team to act as Rose's Care Coordinator.

The Care Coordinator contacts Rose and books two appointments at times convenient for her. During the first appointment, a Health Care Assistant collects all the information required in advance of the second appointment and performs relevant tests.

Rose and her daughter both attend the second appointment with Dr Patel. This is a 30-minute care planning appointment. Dr Patel facilitates the conversation to help them prioritise their goals and targets for the next year. Rose admits her mood has been low for many months and that improving her mood is her first priority and this would help her to better look after her grandson and manage her other health problems.

Dr Patel explains that a local talking therapies service is now available and Rose decides to try this. Rose feels that her breathing is currently manageable, so they make a shared decision to focus on her diabetes.

Dr Patel generates a Care Plan which Rose can take home with her. They agree on a convenient time for a follow up appointment.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do I feel about relinquishing control to my patients? How will I manage my own emotions and involvement with the intensity and intimacy of long appointments? How would I deal with the frustration of patients who do not follow through with their own goals and actions?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How do I ascertain how much information Rose is happy for me to share with her daughter or with other agencies? How might the approach change if Rose suffered from dementia? How might individuals of different ages and cultures respond to this approach which shifts the balance of power towards the patient?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How can I encourage Rose to lead the conversation in defining her own goals and targets? How can I encourage self-management? What might be the impact of third-parties on the consultation?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What information should be collected during the initial collaborative care and support planning consultation? How can we support Rose in interpreting information to best aid decision making?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What structured tools am I able to utilise in assessing anxiety and depression? Can I accurately perform and interpret FEV1 measurements?

Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	How can we support Rose's autonomy in decision making? How can I ensure that Rose remains the priority when her daughter is also in the room?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	How do I balance the patient's wishes with what I perceive to be medical priorities in management?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	Thinking about similar patients, how do I assist a patient in managing the psychological burden of chronic disease and cancer? How do I make a holistic, whole person approach to disease management work in a specialism driven secondary care system?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	How can I ensure collaboration between different agencies including health, social and the voluntary sector? How can I effectively communicate this process with patient groups? How could I best involve other primary care professionals in the collaborative care and support planning process?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	What training will I and other professionals require to deliver patient-centred care? How can I improve my knowledge of local services to support patients and their families? How might I evaluate my current care for people with long-term conditions and audit the impact of a more structured and collaborative approach?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	How can I involve patients and carers in service redesign? What are the advantages and potential challenges of involving patients in the design of the process? How can I use my clinical leadership skills to bring about improved care for people with long-term conditions? How do I overcome the barriers to changing my practice's current approach?
Practising holistically, safeguarding and promoting health	How do I support the patient's family?

<p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>What impact would Rose's social circumstances have on her health and wellbeing?</p> <p>When is it appropriate to involve a patient's relatives?</p> <p>How might I manage concerned relatives who take control of the conversation away from the patient?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How can my team balance the requirement for availability of appointments with the need for longer appointments?</p> <p>How can I support the provision of community based services to support healthy living?</p> <p>How do I balance the needs of patients with long-term conditions against the wider issue of limited NHS resources?</p>

How to learn this area of practice

Work-based learning

As a GP, you should develop a flexible partnership-based approach, to agree shared goals, identify support needs, develop and implement action plans, and monitor progress.

To be effective as a GP, you should become familiar with approaches to enable better health and wellbeing outcomes for these patients, including the Collaborative Care and Support Planning process. This should include leading and working within the multi-disciplinary team to implement and facilitate the process for the benefit of patients and their families/carers.

It is also important to reflect on positive and negative experiences recounted by patients with long-term conditions and use this to consider how your own practice and attitudes as a clinician impact on these experiences.

You should get actively involved in cancer care reviews, health promotion and recurrence detection. Follow up patients with a new cancer diagnosis to ensure continuity of care and in order to understand their journey through the cancer care pathway – including the effects that the diagnosis, the disease and treatments have on them and their family.

Self-directed learning

You can find e-Learning module(s) relevant to this Topic Guide at e-Learning for Healthcare (e-lfh.org.uk)

There are many structured courses available to facilitate the delivery of Collaborative Care and Support Planning. Related to this, the Year of Care partnership (www.yearofcare.co.uk) is a quality assured national programme offering a range of support and training options including many resources to support all elements of the House of Care.

National voices have produced a guide to care and support planning to help healthcare professionals and people with need to understand and take part on the process whilst NHS England has released a handbook aimed at commissioners and care practitioners to set out what personalised care and support planning is, and how to deliver it

Cancer

MacMillan Cancer Support

A downloadable booklet outlining the long-term consequences of cancer treatment.

www.macmillan.org.uk/documents/aboutus/newsroom/consequences_of_treatment_june2013.pdf

RCGP Toolkits

[The RCGP toolkits are regularly updated and are available at: http://www.rcgp.org.uk/clinical-and-research/resources/toolkits.aspx](http://www.rcgp.org.uk/clinical-and-research/resources/toolkits.aspx)

Collaborative Care and Support Planning (CCSP)

RCGP – Collaborative Care and Support Planning

RCGP endorses CC&SP as core business for general practice highlighting that it is an effective way to manage multi-morbidity. It has published a number of documents outlining specific recommendations and supporting commissioners and practices to implement CC&SP as a tool for supporting people with long-term conditions.

Coalition for Collaborative Care

The Coalition is an alliance of people and organisations committed to making personalised care and support planning the norm as a means by which people can be full partners with health and care professionals.

The King's Fund

The King's Fund has published many papers on CC&SP including one describing a co-ordinated service delivery model – the 'house of care' – that aims to deliver proactive, holistic and patient-centred care for people with long-term conditions

Think Local Act Personal (TLAP)

TLAP have developed a range of materials to support councils and other people and groups to put the Care Act into practice. The Personalised care and support planning tool formed part of this.

NHS England

NHS England has published a series of handbooks for commissioners and care practitioners setting out what personalised care and support planning is and how to deliver it.

Person-centred care and shared decision-making

The Health Foundation

The Health foundation has developed a 'person-centred care resource centre' which provides a starting point for planning and funding (commissioning) shared decision making and self-management support

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Risk of second malignancies after treatment for cancer
- Prescribing in patients with multi-morbidity
- Entitlement to statutory benefits.

Clinical Skills Assessment (CSA)

- Man who had leukaemia as child, attends frequently for apparently minor conditions
- Woman with Ehlers-Danlos syndrome is struggling to manage her work as a primary school teacher
- Home visit to a bedbound woman with a spinal injury who has become mildly confused. She has had treatment for repeated UTIs.

Workplace-based Assessment (WPBA)

- CbD (Case Based Discussion) with a woman who cares for her frail elderly blind father with dementia, who is also your patient. She is asking for your help as she can no longer cope with him
- Learning log on a man living in a nursing home on dialysis who wants to stop treatment
- Learning log on a young adult with cerebral palsy who has epilepsy.

Reference

NHS Data Dictionary

https://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/long_term_physical_health_condition_de.asp?shownav=1

Maternity and Reproductive Health

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to maternity and reproductive health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in maternity and reproductive health

As a GP, your role is to:

- Provide pre-conception advice and endeavour to optimize the health and wellbeing of women trying for pregnancy
- Work with midwives to provide antenatal care including routine antenatal care, and shared care with secondary care for more complicated pregnancies
- Provide postnatal care including support for breastfeeding, post-natal monitoring and medication management, detection and management of post-natal physical and mental health problems, and postnatal contraception
- Provide care for medical problems that are present in pregnancy – this may include physical or mental long-term health conditions that may pre-date the pregnancy, or that develop during pregnancy
- Provide care and support for women, and their partners, affected by pregnancy loss and infertility.

Emerging issues in maternity and reproductive health

- Increasing numbers of women are putting off having a child until later in their reproductive years. In addition to reduced rates of fertility, advancing maternal age is associated with an increased miscarriage risk and a higher risk of pregnancy complications
- Smoking, obesity and lack of exercise remain large, modifiable, risk factors for a range of poor pregnancy outcomes
- The diminishing role of the GP in routine antenatal care provides challenges in ensuring women receive continuity of care from pre-pregnancy through to after delivery. This is a particular challenge in relation to providing holistic care for women with underlying medical, psychological or social difficulties where the GP's knowledge of the wider situation can be invaluable. Good information sharing between GPs and other health professionals is essential in these circumstances
- The delegation of routine antenatal care to midwives is leaving many GPs with reduced experience of caring for pregnant women
- Developments in antenatal testing including pre-implantation genetic screening and Non-Invasive Prenatal Diagnosis (NIPD).

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Normal pregnancy symptoms and signs
- Abnormal pregnancy symptoms and signs, including abnormal abdominal palpation (fetal size and lie), bleeding, hyperemesis, pain (abdominal or pelvic), pre-eclampsia symptoms and signs, pre-term labour, reduced fetal movements, symptoms of venous thromboembolic disease, symptoms suggestive of exacerbation of co-existent medical conditions
- Perinatal mental health symptoms
- Postnatal symptoms including abnormal bleeding and symptoms of breastfeeding problems

Common and important conditions

- Perinatal mental illness (PMI) including adjustment disorders, antenatal depression, baby blues, chronic mental illness in the perinatal period, OCD, paternal PMI, postnatal depression, post-partum psychosis, post-traumatic stress disorder and tokophobia
- Pre-conception care and advice including health promotion advice (e.g. smoking cessation and weight loss), medication adjustments, optimisation of pre-existing medical conditions, rubella immunisation, supplementation
- Pregnancy with social complications – such as domestic violence, drug and alcohol misuse, homelessness, safeguarding concerns, teenage pregnancy
- Prescribing pre- and perinatally, including teratogenesis.

Antenatal care

- Principles and guidelines for routine antenatal care including recommended supplements, dietary and lifestyle advice, immunisation in pregnancy
- Antenatal screening for fetal and maternal conditions

- Pregnancies complicated by pre-existing medical conditions including asthma, cancer, cardiac disease, diabetes mellitus, epilepsy, hypertension, HIV infection, mental health conditions, obesity, thyroid disease and venous thromboembolism
- Indications for aspirin prophylaxis
- Antenatal complications, such as:
 - Bleeding and pelvic/abdominal pain in pregnancy
 - Congenital abnormalities
 - Early pregnancy loss: miscarriage, ectopic and molar pregnancy
 - Growth problems: abnormal symphysial fundal height
 - Haematological problems e.g. haemoglobinopathies (including sickle cell disease and thalassaemia), haemolytic disease (including rhesus incompatibility and prophylaxis) and thromboembolism
 - Infections e.g. urinary tract infection, asymptomatic bacteriuria, group B streptococcus, chicken pox, chorioamnionitis cytomegalovirus, hepatitis, herpes simplex, HIV, listeria, parvovirus and rubella
 - Intrauterine death and stillbirth
 - Mal-presentation including breech and transverse lie
 - Metabolic problems arising in pregnancy e.g. hyperemesis, gestational diabetes, jaundice, obstetric cholestasis
 - Multiple pregnancy
 - Pregnancy induced hypertension, pre-eclampsia and eclampsia
 - Reduced fetal movements.

Delivery

As a GP you should understand this aspect of maternity care and women's experiences of the common types of delivery, but in general a GP is not expected to be able to provide intra-partum care.

- Normal labour and common problems of labour including premature labour, prolonged pregnancy, induction of pregnancy
- Caesarean sections: indications and associated complications, options for subsequent deliveries including vaginal birth.

Postnatal care

- Normal postnatal care including routine 'neonatal examination' and 'maternal six-week check'
- Infant feeding including breastfeeding. (Please also see Topic Guide on Children and Young People)
- Postnatal problems including breastfeeding problems, bladder and bowel problems, mental health problems, retained products, uterine infection, wound problems.
- Providing contraception advice postnatally and after pregnancy loss.

Unwanted pregnancy and termination of pregnancy are covered in the RCGP Topic Guide *Sexual health*.

Examinations and procedures

- Antenatal examination including abdominal palpation, assessment of symphysial fundal height and fetal heart rate, blood pressure and urinalysis.

Investigations

- Pregnancy investigations, including:
 - laboratory tests to evaluate gestational diabetes, obstetric cholestasis and pre-eclampsia;
 - screening and prenatal diagnosis for congenital abnormalities including:
 - amniocentesis and chorionic villus sampling;
 - antenatal screening including triple test, quad test, nuchal test, haemoglobinopathy screening and anomaly ultrasound scan;
 - tests for infection including asymptomatic bacteriuria, HIV, syphilis;
 - ultrasound for dating, growth and fetal well-being; and
 - urinary and serum β -HCG
- Primary care investigation of female subfertility including blood tests and ultrasound
- Semen analysis.

Service issues

- Local arrangements for fertility treatments, antenatal care and delivery including shared care with midwifery services and with secondary care
- Local services to support women who are breastfeeding
- Local support and services for women with perinatal mental health problems, including strategies to identify these women
- Maternity rights, benefits, schemes and associated administration e.g. Healthy Start, MatB1, maternity exemption from prescription charges
- Safeguarding of unborn children and neonates
- Screening for domestic and intimate partner violence in the context of antenatal care
- Strategies to reduce teenage and unplanned pregnancies.

Case discussion

Sabrina is a 40-year-old mother of five girls who comes to see you to tell you that she has found out she is newly pregnant with her sixth child. She has type 2 diabetes and has a BMI of 42. She speaks poor English and her husband translates for her. He tells you she is 'fine' except for some achy joints and asks how soon they can find out the sex of the baby. Saleem looks downcast and close to tears. Her medical records show that she had an emergency caesarean at her last delivery due to fetal distress. The health visitor had suspected that she suffered from post-natal depression after this child was born and arranged for Saleem to see you when the baby was two months old, but despite your best efforts to explore this she was very reluctant to talk to you about how she was feeling.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practice This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	If I or my partner are personally struggling with infertility or recurrent miscarriage, how would I react when consulting women for whom getting pregnant seems easy, or who have an unwanted pregnancy?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How do I explore the couple's reasons for wanting to know the gender of the baby? How do I react to families from cultural settings where female babies are less valued than males? How do I respect a patient's choice not to discuss personal matters such as their emotions with me? How do I know when to press them harder on this and when to step back?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	What are the issues around use of interpreters, particularly if they are a family member or intimate partner? What alternative interpreting services are available in my locality? How can I develop my non-verbal communication skills? How do I explore the couple's reasons for wanting to know the gender of the baby?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	How do I assess her diabetes control? How do I try and assess whether or not she is depressed? What tools can I use for screening for postnatal depression?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	How do I assess the gestation of a pregnancy? Am I proficient at carrying out a routine ante-natal check?

<p>Making decisions</p> <p>This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.</p>	<p>What would make me decide I needed to arrange to see Sabrina without her husband present? How would I communicate this to them?</p>
<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>What do I know about the management of diabetes in pregnancy? How can I advise her on this at the initial consultation?</p> <p>What pre-conception advice should be given to women with diabetes planning a pregnancy?</p> <p>What are the local arrangements for care of pregnant women with diabetes?</p> <p>What are the local guidelines on delivery for women who have had a previous caesarean section?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>How do I manage her multiple risk factors for pregnancy complications?</p> <p>How do I address my concerns that this baby might be at risk of gender-based abortion?</p> <p>How do I evaluate whether her 'achy joints' may have an underlying physical cause or whether they might be somatisation?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>How do I ensure Sabrina has co-ordinated care with community teams including GPs, midwives, health visitors and secondary care antenatal services?</p> <p>How do I raise any safeguarding concerns that might relate to this pregnancy?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>How do I keep up to date with the latest guidelines and recommendations for conditions that I might see infrequently (such as diabetes in pregnancy)?</p> <p>How do I maintain my skills in providing antenatal care for uncomplicated pregnancies when it is increasingly common for women to be cared for almost exclusively by midwives?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate</p>	<p>How does my organisation ensure that all women who are of child-bearing age and have diabetes receive appropriate pre-conception advice?</p>

<p>use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What are the different systems of record keeping used in antenatal care and how are they co-ordinated?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How can we promote mental and physical well-being in the perinatal period?</p> <p>How can we tackle the stigma around perinatal mental illness?</p> <p>How much do I understand about different cultural attitudes to childbearing?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What services are available locally to support women struggling with perinatal mental health problems?</p> <p>In what ways can we develop services to help patients for whom English is not their first language?</p>

How to learn this area of practice

Work-based learning

Primary care placements are the ideal opportunity for a GP specialty trainee to learn how to manage maternity and reproductive health because it is where the vast majority of patients with these concerns are cared for.

Some GP specialty training programmes contain placements of varying length in obstetric and gynaecology units. These will give you exposure to patients with obstetric concerns including possibly experience in day assessment units or outpatient clinics for women with complicated pregnancies. It is also a good opportunity to observe deliveries including normal deliveries, assisted deliveries and caesarean sections.

Self-directed learning

Reproductive health is part of normal life experience for many specialty trainees and reflecting on your own, or family and friends, experiences of this area of health care can provide valuable insights. The RCGP Women's Health Framework is a library of educational resources and guidelines on women's health, including maternal health accessible to RCGP members and non-members. The RCGP have a perinatal mental health toolkit <http://www.rcgp.org.uk/clinical-and-research/toolkits/perinatal-mental-health-toolkit.aspx>

You can find e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare ([e-lfh.org.uk](http://elfh.org.uk)) and at RCGP Learning www.elearning.rcgp.org.uk

Learning with other healthcare professionals

As a GP specialty trainee, it is essential that you understand the variety of services provided in the community. Working with community midwives will give an insight into community antenatal care. Health visitors have a key role to play in supporting women in the post-natal period and time spent shadowing them can give valuable insight into how they provide this support. Learning how to work with these professionals is an essential aspect of being able to provide holistic care.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Primary care investigations for failure to conceive
- Prescribing in pregnancy and breastfeeding
- Routine antenatal screening tests.

Clinical Skills Assessment (CSA)

- Woman in early pregnancy requests an abortion. She describes risky sexual behaviours associated with alcohol
- Woman in stable same-sex relationship requests referral to the assisted conception clinic
- Woman who is 10 days postnatal attends with flu-like symptoms and a painful breast.

Workplace-based Assessment (WPBA)

- Case-based Discussion (CbD) about a woman who is Hepatitis B positive on routine antenatal testing and her husband is her only sexual partner
- Learning log on a couple who have had a recent stillbirth
- Clinical Examination and Procedural Skills (CEPS) – competent examination of a pregnant woman in the 3rd trimester of pregnancy.

Older Adults

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of older adults by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of older adults

As a GP, your role is to:

- Diagnose, investigate and manage older adults taking into account theories of ageing, differences in epidemiology and risk factors of disease in the elderly population. Consider the physical, psychological and social changes that may occur with age
- Communicate appropriately with patients, their families and carers, recognising potential challenges in communicating with older patients. When necessary, balance confidentiality with the need for information and shared decision making
- Coordinate with other organisations and professionals (e.g. community nurses, social services, rehabilitation, care homes, voluntary sectors) whilst taking an advocacy position for the patient or family when needed, including for palliative and end-of-life care planning
- Review medications and repeat prescriptions effectively, potentially working with pharmacists. Consider the factors associated with drug treatment in the older adult (e.g. changes to the physiology of absorption, metabolism and excretion of drugs and the hazards posed by multiple prescribing, non-compliance and iatrogenic disease)
- Offer advice and support patients, relatives and carers regarding prevention, monitoring and self-management. Ensure care promotes patients' sense of identity, independence, personal dignity and that the patient is not discriminated against as a result of their age.

Emerging issues in the care of older adults

- A demographic shift in the UK population has resulted in a rapid increase in the number of older people. Over the next 20 years, the number of people aged 85 and over is set to increase by two-thirds, compared with a 10 per cent growth in overall population²⁷
- Risks of long term conditions and cancer in older adults are exacerbated by increasing lifestyle factors such as obesity, alcohol and other substance misuse problems
- Social care services to help people stay safe and independent at home (e.g. home carers, meals on wheels, day care) are mainly arranged by local councils whose budgets have been

²⁷ Quality Standards for the care of older people with urgent & emergency care needs: The "Silver Book" (2012)

significantly reduced. The resulting lack of support in the community means there is little provision for preventative services, so when care is required, it is often urgent and unplanned²⁸

- Older people are increasingly admitted to hospital more frequently, with longer lengths of stay and occupy more bed days in hospital compared to other patient groups²⁹
- There is an increase in the number of carers aged 80 and over. Over half are caring in their home for more than 35 hours a week. It is estimated that there will be more than 760 000 carers aged 80 and beyond by 2030³⁰
- Concept of 'living with frailty' as not an inevitable or irreversible part of getting older and that it is possible to maintain independence by engaging with strategies and services³¹.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

Consider the normal physical and psychological changes that can occur with age and relate them to the adaptations older adults make and to the breakdown of these adaptations (e.g. when hearing, vision or cognitive function continue to worsen).

Common and important conditions

- Cancer: recognise the common, early, 'red flag' symptoms and signs of malignancy (e.g. weight loss, dysphagia, melaena, diaphoresis etc.), many of which may be non-specific if taken in isolation. Many cancers are more prevalent in the elderly population and may be insidious

²⁸ www.ageuk.org.uk

²⁹ Quality Standards for the care of older people with urgent & emergency care needs: The "Silver Book" (2012)

³⁰ www.ageuk.org.uk

³¹ Frailty: Language and Perceptions. A report prepared by BritainThinks on behalf of Age UK and the British Geriatrics Society (2015)

- Cardiovascular: atrial fibrillation, heart failure, hypertension, ischaemic heart disease, risks for stroke and dementia
- Co-morbidity, difficulties in communicating, polypharmacy, malnutrition, social isolation and the need for additional support for the increasingly dependent patients in general practice are important issues and can delay the early recognition of adverse clinical patterns in older people
- End-of-life care: moral, ethical and emotional issues relating to the end of life as well as after death (e.g. living wills, palliative care) (see also RCGP Topic Guide on *People at the End-of-Life*)
- Musculoskeletal: falls, fractures, gait disorders, osteoporosis, osteoarthritis
- Neglect and abuse (emotional, mental and physical) in the elderly.
- Neurological: Parkinson's disease, stroke and confusion
- Psychiatric: anxiety and depression, delirium (hyperactive, hypoactive or mixed) and dementia (including vascular, Alzheimer's and Lewy Body and the importance of avoiding antipsychotics with the latter). Early use of anticholinergics where appropriate. The effects of these conditions on the person, the family and community, and the effects of physical function on the patient's mental state (See RCGP Topic Guide on *Mental Health*)
- Renal: chronic kidney disease (CKD), hydration
- Respiratory: COPD
- Skin: pruritus, ulcers, skin malignancies, lichen sclerosus, benign lesions associated with ageing
- Urogenital: infections, incontinence, LUTS, benign prostatic hypertrophy

Examinations and procedures

- Consider any adjustments that may be needed to examine appropriately and the normal variation in biometrics
- Informed consent and assessment of capacity
- Accurate measurements including dementia screening and assessing for arrhythmias
- Appropriate monitoring and use of investigations
- Indication and administration of vaccinations (seasonal flu, pneumococcal, shingles).

Investigations

- Changes in the normal range of laboratory values that are found in older people
- Interpretation of ECG (e.g. diagnosing AF)
- Blood pressure (e.g. risk of hypertension and also postural hypotension).

Service issues

- The care of older people may be a significant proportion of general practice workload (e.g. the requirement for routine appointments for reviews and monitoring, urgent appointments and the mechanisms for dealing with this). Increasing use of tools on frailty to identify populations that need increased support and management
- Increasing use of community teams and services to support patients at home and avoid admissions to hospital

- Inequalities in healthcare provision can be particularly significant in older persons (e.g. learning, physical disabilities, access to care). This can be limited by ensuring easy access to the primary healthcare team, appropriate timing of appointments, sign-posting to appropriate team members, and the systematic management of chronic conditions and co-morbidities
- The positive and negative ways in which socio-economic and health features inter-relate (e.g. poverty, ethnicity and local epidemiology) and the importance of this within the community
- Respect for the sensitivities of older adults regarding their health attitudes, behaviours and needs; impact of attitudes to treating older adults equitably, with respect for their beliefs, preferences, dignity and rights; issues of confidentiality and consent and sharing information with other agencies
- Increasing numbers of older adults do not have English as a first language e.g. those who are migrants or living with family and do not speak English at home
- Access to social services, rehabilitation, nursing homes, residential homes and various statutory and voluntary organisations for support of older people in the community, (e.g. podiatry, visual and hearing aids, immobility and walking aids, meals on wheels, home care services). Note that patients may have pre-conceived ideas of what 'support' can mean and may not identify themselves as needing support
- Differences when working with care homes including continuity, medicines management and the use of care home advocacy and Deprivation of Liberty orders (DoL)
- Advance care planning and Advance Directives (including Do Not Attempt Resuscitation (DNAR) forms) and the need to involve relatives and carers as well as the individual.
- Patient held records can support appropriate decision making in the context of long term conditions' management and end of life care (see RCGP Topic Guides *People at the End of Life* and *People Living with Long Term Conditions*)
- Ensure the appropriate use of screening and case-finding programmes. Note the potential challenges e.g. auditing the quality of care in varying forms of residential accommodation.

Additional important content

- Co-morbidity and physical factors – particularly diet, exercise, ambient temperature and sleep – disproportionately affect the health of older people and will influence the management of existing disease
- A problem-based approach is important, taking in the 'big picture', rather than a disease-based approach to the care of older people, who often have complex physical, psychological and social problems
- The distinction between physiological and natural ageing processes, and pathology/disease,
- Risks of poly-pharmacy (including the increased risks of significant cross-reactions and side effects).
- Legal and ethical issues may arise (e.g. confidentiality, the Mental Health Act, the Mental Capacity Act, power of attorney, court of protection applications, guardianship, living wills, death certification and cremation)
- Difficulties in designing ethical approvable research studies with frail and elderly patients and extrapolating evidence from research to older populations
- Issues related to carers, in particular the positive and negative impact of being a carer on their health and your holistic duty not to overlook these issues.

Case discussion

Ashok, an 80-year-old man, attends the surgery in winter after having been discharged from hospital following treatment of a femoral fracture. He has severe back pain and a raised prostate-specific antigen (PSA) level. He has vascular dementia and was being cared for at home by his wife although she is finding it hard to cope. They have family overseas but no local support network.

Ashok has multiple other medical problems including type-2 diabetes and hypertension. His prostate cancer was thought to be in remission. They live in a two-storey property with an upstairs toilet; he is the registered owner of the house. He is now unable to climb the stairs.

His wife, another patient of yours, has a right cataract impairing her vision and has previously made some minor errors when administering his medications. She also has poor mobility and is due to have a left hip replacement for osteoarthritis. She has been receiving a 'carer's allowance' and wants to continue to care for her husband at home.

You make a home visit after Ashok's hospital discharge to find him unkempt, in soiled bedding in a cold house. There has been inadequate discharge planning and little assessment of his home situation to help him or his wife cope with his new immobility.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are the personal challenges I face in my working life when caring for my elderly patients? How do my personal attitudes and biases to the elderly, to the processes of growing old, becoming frail and to dying affect my practice? How would I manage this complex scenario during the working day while also maintaining my performance elsewhere?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How might I address concerns about the inadequate discharge planning? How can my patients retain autonomy in this situation? What is my role in safeguarding the needs of the demented man while also respecting his wife's wishes?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging	What problems might I face in communicating with this couple? In the scenario described, who is my patient?

consultations, third-party consulting and the use of interpreters.	How might I respond to apparently dated social and health beliefs and cultural traditions?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	Where can I access information on the management of vascular dementia? How do I balance the use of intensive or invasive tests and treatments and the use of limited healthcare resources in the care of the elderly? What other information about the family would be useful?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	Can I perform an accurate assessment of cognitive function using formal tools?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What are the most appropriate options for managing a situation where there is no clear clinical need for hospital admission? How much should Ashok's wife influence this? How could the consultation encourage a shared decision-making process?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What are the immediate medical and social problems that I need to manage? What is the treatment of choice for Ashok's hypertension? How can I ensure my personal biases regarding the management of risk factors in the elderly do not influence management decisions? e.g. the cardiovascular risk factors of smoking, obesity, exercise, alcohol, age and race
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	How might I describe the complexity of this episode of healthcare provision? How would I make a risk assessment of this couple's situation? What are the possible supportive organisations and potential referral routes in this case?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use	What arrangements would I make to improve continuity of care?

<p>of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>If I was concerned there was a safeguarding issue in this case, how would I manage this? Who else might be able to help me?</p> <p>What processes are important for continuity of care in the out-of-hours setting?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What do I know about residential and care homes in my practice area?</p> <p>What can be identified as areas of personal educational need?</p> <p>What areas could be explored further for potential improvement for colleagues managing similar cases?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>How can I retain patient confidentiality when recording information about this couple in the notes?</p> <p>What information would I normally expect to receive following a hospital admission?</p> <p>What can my practice do to improve the support for similar patients?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>Considering Ashok's wife, what might be the consequences to her if her husband goes into a care home?</p> <p>What sort of discussion should I be having with this couple regarding long-term care and placement?</p> <p>How can I manage this couple's ideas, concerns and expectations?</p> <p>How might the practice team have anticipated the problems identified in this scenario? Which problems, if any, do I think might have been prevented?</p> <p>What other services may be available to carers in my practice?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How common is this type of problem in my practice population? How would I try to find out?</p> <p>What voluntary support services are available to my patients?</p> <p>What support can be offered by the primary care team and/or hospital outreach services?</p>

How to learn this area of practice

Work-based learning

In general practice you will have the opportunity to care for many elderly patients with physical and mental conditions who live at home or in a residential care home. As a GP trainee you should be encouraged to look after some of the practice's older patients throughout your placement. As you follow them along their journey you will gain a better understanding of their problems and of the social and medical care they receive. Case conferences and multi-professional assessments of your older patients will give you a better understanding of disease processes and their functional consequences.

A placement in a care of the elderly medicine (geriatric) department offers you the opportunity to learn how to manage complex co-morbidity, interact with inter-professional teams, experience interagency work, and work closely with the voluntary sector. You should also take the chance to expand your knowledge and skills in end-of-life care and advance directives. Take the opportunity also to attend day hospital and clinics, as well as to accompany your consultant on any domiciliary visits.

Self-directed learning

Older patients often have many complex psychological, social and physical problems that provide rich subjects for tutorials and case-based learning.

Learning with other healthcare professionals

The discipline of care for older adults involves huge numbers of professionals, each with their particular areas of expertise. These include community nurses, physiotherapists, occupational therapists, speech therapists, opticians, audiologists, palliative care nurses, physicians and social workers, to name but a few. You should endeavour to spend some time with these colleagues to ensure you understand the breadth and frequency of input that can be provided to the older adult, the effectiveness of such input, and the appropriateness of referral to these agencies. You should also take the opportunity to visit patients at their homes with other members of the primary healthcare team and to accompany the occasional patient to hospital clinics to gain a better understanding of the 'patient's journey'.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Diagnosis of frequent falls
- Tools for assessing cognitive impairment
- Use of advanced directives.

Clinical Skills Assessment (CSA)

- Elderly man requests more analgesia for advanced hip osteoarthritis. He has declined a hip replacement because he is the sole carer for his disabled wife.
- Woman with heart failure is dyspnoeic but cannot cope with the incontinence when she takes her diuretic medication
- Phone call: Adult son is concerned that his elderly father is no longer coping safely with living alone.

Workplace-based Assessment (WPBA)

- Log entry about attending a multidisciplinary team meeting planning the hospital discharge of an elderly woman with dementia
- Log entry about completing a care plan for a nursing home resident whose daughter has unrealistic expectations
- Data gathering in a consultation with a garrulous patient giving an inconsistent and vague history
- Mini-Mental State Examination.

People at the End-of-Life

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to end-of-life care by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in end-of-life and palliative care

As a GP, your role is to:

- Enable early identification of patients and their carers
- Holistically assess the needs of the patient, family and carer
- Understand diversity of need across age, gender, diagnosis, disability, sexuality, culture and spirituality to enable individualised care
- Identify reversible conditions or deterioration and proactively plan for anticipated changes in capacity
- Recognise common themes and consideration required for sensitive communication
- Manage the general medical care and support the needs of patients with advanced serious illness and end of life care
- Understand the purpose and function of the multidisciplinary team (MDT)
- Liaise and work in partnership with specialist palliative care and MDTs- to optimise care
- Understand the benefits of Personalised Care and Support Planning
- Understand how to reliably meet Five Priorities of Care for people in the last days of life, to ensure the best care and death possible. (Recognise, Communicate, Involve, Support, Plan & Do)
- Deliver care with compassion, so that the person can die with dignity, with individualised care and minimal distress.
- Ensure timely and regular review of the person's needs and wishes, and revise care and support plans accordingly
- Understand your role in care after death, including health promotion advice and support of normal and complex grief responses
- Understand the importance of reliable processes in place, such as best practice coding and documentation, required to support patients and those important to them
- Participate in reflective practice to learn from deaths and improve your practice
- Understand the public health compassionate community approach and the GPs role within this.

Emerging issues in end-of-life care

- General practitioners play a key role in caring for people with advanced serious illness and those who are nearing the end of their life. But providing that care at a consistently high level of quality can often be challenging. The use of voluntary quality improvement standards for GPs, can help assess and improve end of life care. They might include -
 1. Professional and competent staff
 2. Early identification
 3. Carer support - before and after death
 4. Seamless, planned, co-ordinated care
 5. Assessment of unique needs of the patient
 6. Quality care during the last days of life
 7. Care after death
 8. General practices being hubs within compassionate communities
- A Compassionate Communities, Public Health Palliative Care Approach can improve quality and meaning in life, experience, outcomes and the ability to mobilise the community to help develop supportive networks.
- Improving communication and coordination of important information between health and social care professionals from different care settings, including the use of Electronic Palliative Care Co-ordination Systems (EPaCCS).
- Documentation including Treatment Escalation Plans, 'Do Not Attempt Resuscitation' (DNAR), Deprivation of Liberty Safeguards, Advance Decision to Refuse Treatment (ADRT) and Lasting Power of Attorney (LPA). There is a range of relevant documentation, which can vary by region across the UK
- Application of an early palliative care approach and integration of proactive care planning into the management of all patients with advanced serious illness, including frailty, multi-morbidity and non-malignant disease.

Knowledge and skills guide

The General Medical Council defines people as 'approaching the end of life' when they are likely to die within the next 12 months. This includes: patients whose death is imminent (expected within a few hours or days); those with advanced, progressive, incurable conditions, general frailty and co-existing conditions; life-threatening acute conditions or deterioration caused by sudden catastrophic events. Palliative care is a broader approach that improves the quality of life of patients and families facing the problems associated with life-threatening illness; physical, psychological, cultural, social and spiritual.

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition, including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including, self-care, initial emergency and continuing care, chronic disease monitoring,
- Patient information and education including self care
- Prognosis, and management of uncertainty
- Benefits of non-health based support for the patient, family and carer

Symptoms and signs

- Pain
- Gastrointestinal symptoms (e.g. nausea and vomiting, oral symptoms such as ulceration, constipation, diarrhoea, ascites, hiccups)
- Cachexia, anorexia and fatigue
- Psychological problems (e.g. insomnia, anxiety, depression, delirium, restlessness and terminal agitation)
- Neurological symptoms (e.g. Headaches, Fits, limb weakness)
- Respiratory symptoms (e.g. breathlessness, excessive secretions, cough)
- Skin symptoms (e.g. pruritis, lymphoedema, prevention of pressure sores)
- Signs and symptoms of dying may include an exacerbation of those listed above
- Anticipatory grief (patient and carer) and bereavement support (carer)
- Care giver 'pressure points and distress'
- Recognition of complex grief signs and symptoms (to align with changing ICD code)

Common and important conditions

- Pain is a common symptom in palliative care. Recognition of the type, expression and possible causes of pain and its management are important (physical, psychosocial, cultural and spiritual)

- Emergencies in palliative care include:
 - haemorrhage;
 - hypercalcaemia;
 - superior vena cava obstruction;
 - spinal cord compression;
 - raised intracranial pressure;
 - sepsis;
 - pancytopenia; and
 - venous thromboembolic events (e.g. pulmonary embolus or deep vein thrombosis).

Examinations and procedures

- Assessing and diagnosing the cause of symptoms through appropriate targeted examination.
- Pain and symptom management including knowledge of therapeutic procedures
- Psychological support

Investigations

Investigations may be aimed at the underlying condition itself or checking for reversible conditions when appropriate. The rationale for investigations should be carefully considered and agreed with patients and those important to them.

Service issues

- Palliative and end of life care takes time and planning. The number of people who die each year is rising.
- There is an increasing demand for specialist palliative care services, which are commonly supported by funding from charitable organisations.
- Optimising links between health and care services with de-medicalised support from voluntary sector and community development.
- Inequities in access and provision of palliative care services including 24/7 specialist palliative care support.
- Patient preference for place of death may be their home, which may require significant support and planning.
- Difficulties of prognostication and managing uncertainty.
- The importance of palliative care meetings and training within primary care teams for good service provision.
- Achieving reliability of care and experience for all patients who have an expectable death.
- Financial implications for patients and their carers including access to benefits (e.g. DS1500).
- Timely, death verification and certification.

Additional important content

- An increasing number of children and young people are living longer with life-limiting and life-threatening conditions and may require the support of the GP at times through their illness, including at transition from paediatric to adult services. The GP has a key role, providing general medical care and holistic care and support to the family. A GP may be involved in the care of a dying child only a few times during their career, and will require

access to the wider MDT and knowledge of local services for help and support in this circumstance.

- Approaches to supporting families and carers after bereavement need to take into account religious, spiritual and cultural beliefs and practices
- A GP needs to be aware of ethical considerations in palliative care and the use of GMC guidance (e.g. autonomy, beneficence, non-maleficence).

Case discussion

Mr Singh is 82 years old and the head of a large Sikh family. He had a haemorrhagic stroke two months ago which left him bed-bound with a reduced consciousness level and unable to communicate, although he can swallow soft food. He is cared for at home by his daughters and granddaughters.

Over the past week, his conscious level has declined and he is choking on his foods. He is having difficulty swallowing and you suspect that he has had further cerebral bleeding. The family would like to continue to care for Mr Singh at home, in line with their cultural practices and beliefs.

You make a referral to the District Nursing team and perform a thorough assessment at home. You also contact the local Specialist Palliative Care team for expert advice regarding end-of-life care and psychological and spiritual support for the family.

A week later, you are asked to make an urgent home visit to Mr Singh. He has deteriorated further, is tachycardic and has coarse crepitations in his right lung. You make the decision to arrange admission to hospital where he is treated for an aspiration pneumonia with IV antibiotics and a drip is inserted to provide hydration while further assessment of his condition is made. Further tests indicate that he has had more cerebral bleeding.

He is discharged home, and you note on the discharge summary the intravenous drip he had in hospital has been stopped after a discussion of risks and benefits before his transfer home. Sensitive DNACPR discussions have taken place with Mr Singh and his family and a form completed and sent to the local ambulance service and the family take a copy home with them.

Mr Singh is discussed at the practice palliative care meeting. The District Nurses have arranged for Mr Singh to have a hospital bed downstairs in his house. They are concerned that he appears to be agitated at times and that his breathing has become noisy due to respiratory secretions. His family are finding his slow decline traumatic. They feel that the goals of care should focus on symptom management and comfort. Mr Singh dies peacefully five days later.

You are able to issue Mr Singh's death certificate the next day, which helps the family to arrange his cremation in line with their spiritual beliefs. The family are supported by the Specialist Palliative Care team's bereavement service.

(Source: This is a modified version of the GMC End-of-Life Care illustrative case.)

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are my personal feelings about advance care planning and adhering to my patient's requests? How do we respect other people's views and shared decision-making? How do we make time for sensitive and difficult conversations in a busy GP working day?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What is the GMC's advice on end-of-life care? What are the ethical principles relevant to care planning and end of life care? Are there cultural beliefs that need exploring? When would I need to consider the Mental Capacity Act?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How would I explain disease progression, variation and uncertainty around death and dying in this case? How could I start a discussion about end of life care planning? How would I handle issues such as distress or different opinions between family members?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What are the challenges in identification of reversible causes of deterioration and whether investigation and / or hospital admission is necessary and appropriate? Am I aware of important psychosocial factors including the patient's occupation?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What symptoms might be problematic towards the end of life? What other potential palliative care emergencies might arise in this situation and how would I manage them? What are the indications for a syringe driver?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	Which specific problem-solving elements are demonstrated in the case study? How can the MDT support decision-making, information-sharing, peer support and education?

<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>How would I manage distressing symptoms towards the end of life? How might these present?</p> <p>Am I aware of where to find information and support for anticipatory prescribing and prescribing a syringe driver if necessary?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>How do I involve patients in assessing risks and benefits when deciding on care at home for patients with complex clinical needs?</p> <p>Do the family have the necessary information, knowledge and skills to support care?</p> <p>Can the family recognise distress and / or pain and are they aware how they can help including, giving medication that will help?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>As the patient's GP, where in this case study am I demonstrating my ability to function as both leader and member of end-of-life teams?</p> <p>Who should the other members of this team be?</p> <p>How will I communicate with out-of-hours providers, district nurses and the wider practice team?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What educational resources, especially locally, can I access for palliative and end-of-life care?</p> <p>What is the evidence-base for end-of-life care and what are the difficulties associated with research in this area?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What is the importance of documenting key decisions about preferences, ceilings of care and DNACPR?</p> <p>What are the out-of-hours care arrangements? How can this help be accessed quickly if necessary?</p> <p>Am I familiar with the legal and statutory reporting obligations on death and cremation certificates, and the criteria for referral to the coroner?</p> <p>How can I reflect on and learn from deaths? How can I be involved with shared learning, across sectors?</p> <p>How do I achieve reliability of processes to enable high quality and safe care for all patients affected by end of life care?</p>

<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How could I support the grieving process in Mr Singh's family?</p> <p>On what occasions in this case study have the spiritual and cultural needs of my patient and his carers been identified and attended to?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What social benefits and services might be available to my patient and his carers?</p> <p>What support has the patient and main caregiver got available to them in a crisis – from health/care services and also within their supportive community networks?</p>

How to learn this area of practice

Work-based learning

Learning about palliative and end-of-life care occurs most effectively when you are actively involved in caring for a patient in the last year(s) of life, including when they are dying. This can be in the patient's own home, or in a hospital, hospice or nursing home. You will find yourself surrounded by many health and care professionals from whom you will learn how to become better at this very difficult but rewarding aspect of being a GP. It is worth noting the role that every member of the MDT plays, and what is important to the patient and their family. It is also important to note how the patient and main caregiver(s) gain and build support and resilience from networks with their community.

Try if at all possible to follow a patient at the end of life and build a case study with suitably anonymised clinical detail, accompanied by your reflections. Working alongside your GP trainer can help in the day-to-day debriefing and managing your own beliefs and emotions. When death happens, ask if you and your trainer can visit the family and discuss their opinions of the care they received. Listen, reflect and share with your colleagues. Training practices usually have regular palliative care meetings where there is opportunity to discuss and learn from deaths with MDT members.

It is interesting to reflect on your observations and experiences of palliative and end-of-life care in hospital and the community, and how these may differ. Consider visiting a hospice if you do not have a clinical placement there, as this will provide another insight. You may witness varying attitudes to death including team members who see dying as a failure of their care and ability to cure, and others who view it more openly as a part of life.

Self-directed learning

There are many structured learning events, especially in local hospices and courses run by the major charities. There is a growing body of e-Learning to help consolidate and build on knowledge gained in the workplace. You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (e-lfh.org.uk). For GP trainees, your specialty training programme should offer case-

based discussions where end-of-life care can be shared. You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (www.e-lfh.org.uk) .

Deaths in our own life can affect the way in which we manage the deaths of others. Consider your own feelings, emotions and beliefs about death and dying. Be open about this with your supervisors. It is possible to read about experiences of other people to help widen your own understanding of how different people can respond to death and dying, helping also appreciate variation across age, gender, diagnosis, disability, sexuality, culture and spirituality to enable individualised care.

Consider people's supportive network available to help increase their resilience and wellbeing, whilst they are not in direct contact with health and care professionals.

Furthermore, be cognisant of your own wellbeing, resilience and compassion needs. Dealing with distress and dying can be very rewarding but also emotionally draining. Explore options of how you debrief, distress and handle professional grief to help support your own resilience. This can be particularly important if you are dealing with illness, loss or grief in your own life, so get to know your own 'warning signs'. Talk about coping strategies with your trainer and peer-groups.

There are valuable resources in the arts, including fiction and non-fiction books, theatre and films, which provide ways of considering the human experience and can be used in groups to supplement case-based discussions.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of emergencies in palliative care
- Entitlement to statutory benefits such as DS1500.
- Management of types of pain, e.g. neuropathic pain and metastatic bone pain.

Clinical Skills Assessment (CSA)

- A man with metastatic bowel cancer wants to discuss his on-going care
- Phone call: District nurse requests medication to control nausea in a dying patient
- A Muslim woman seeks reassurance that her husband's end-of-life care and funeral arrangements will comply with his religious traditions which she describes when asked.

Workplace-based Assessment (WPBA)

- Log entry reflecting on organising home oxygen for a patient with end-stage COPD
- Consultation Observation Tool (COT) of a discussion with a patient about DNACPR
- Log entry about chairing the practice palliative care meeting, contemporaneously updating the patient record and ensuring communication with the wider MDT, including out-of-hours providers.

The Clinical Topic Guides



Royal College of
General Practitioners

Allergy and Immunology

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to allergy and immunology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of people with allergic disorders

- The UK has one of the highest prevalence of asthma, rhinitis and eczema. Allergy-related conditions may present in a significant number of consultations. The GP has the lead role in identifying underlying allergic symptoms that can be difficult to distinguish from the range of normality or other illness
- Anaphylaxis is a potentially life-threatening emergency which can often present in primary care. GPs have a role in not only managing emergencies, but supervising the ongoing management of risk factors and prescribing
- Allergy is a multi-system disease. GPs need to understand how to take an allergy focused clinical history and understand the differentiation of different types by appropriate testing and referral. This includes recognising and recording of food and drug sensitivities

Emerging issues in allergy care

- Despite the increasing prevalence of allergic and immune disorders, there is limited access to expertise and resources. This requires community-based services to take a wider role and develop integrated multidisciplinary pathways
- Allergies are the commonest chronic disorders in childhood and the prevalence has increased dramatically in the last 25 years
- Allergy management plans are being developed in association with other specialties such as paediatrics. Awareness is increasing in schools who may request them for students
- The role of immunotherapy for chronic allergic disorders

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- > The natural history of the untreated condition including whether acute or chronic
- > The prevalence and incidence across all ages and any changes over time
- > Typical and atypical presentations
- > Recognition of normal variations throughout life
- > Risk factors, including lifestyle, socio-economic and cultural factors

- > Diagnostic features and differential diagnosis
- > Recognition of 'alarm' or 'red flag' features
- > Appropriate and relevant investigations
- > Interpretation of test results
- > Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- > Patient information and education including self-care
- > Prognosis

Symptoms and signs

- Anaphylaxis
- Angio-oedema
- Atopy – asthma, eczema and hay fever
- Drug reactions
- GI symptoms e.g. diarrhoea
- Urticaria and rashes.

Common and important conditions

- Anaphylaxis, including doses of adrenaline and resuscitation
- Autoimmune conditions in primary care
- Drug allergies and their mechanisms
- Food allergies, including milk allergy (types e.g. IgE vs. non-IgE mediated, presentation, primary care management and referral)
- Occupational allergies such as latex allergy and contact allergies such as hair dye, metals, plants
- Pollen Food Syndrome
- Types of allergic reactions: immediate, delayed, possible mechanisms
- Venom allergy: referral and emergency management; the role of immunotherapy.

Examinations and procedures

- Administration of adrenaline
- Risk assessment and prescribing of adrenaline devices
- Effective administration of topical nasal steroids and inhaler devices.

Investigations

- Allergy: skin patch and prick testing, specific IgE testing (blood and skin prick), exclusion and reintroduction in suspected non-IgE disease

Service issues

- Commissioning should consider specific training programmes for primary care staff and ensure they have a specialist allergy service
- Extended hub and spoke models such as allergy & clinical immunology networks involving specialist nurses, health visitors, and dietitians in integrated referral pathways

- Pathways through Accident & Emergency departments and criteria for urgent referral to secondary or tertiary care
- Digital health and decision support software to enable remote consultation, and more accurate diagnosis and management.
- Prescribing issues (e.g. adrenaline devices) and the extended role of the pharmacist.
- Patient safety measures (e.g. systems to document allergies in the patient record; Medic Alert bracelet).

Additional important content

- Economic and psychosocial impact of food allergies on the individual and their wider social network.

The role of the GP in the care of people with immune disorders

- Increasing numbers of people with secondary immune deficiencies from chemotherapy and use of biologics may present to their GP
- GPs deliver preventive public health strategies through routine immunization and should expand provision of vaccination as new disease patterns emerge.

Emerging issues in immune disorders

- Immune manipulation is increasingly being used in a range of therapies (e.g. monoclonal antibodies).

Common and important conditions

- Immune deficiency states (inherited, primary and acquired such as HIV, chemotherapy) as applicable to primary care particularly the different requirements for antibiotics
- Immunisation –
 - antibody test results used in guiding management of specific situations such as chickenpox in pregnancy, rubella immunisation, hepatitis B and C;
 - routine primary childhood immunisation schedules, contraindications and adverse reactions; and
 - for occupational medicine such as healthcare workers and Hepatitis B
- Needle stick injuries and risk of Hepatitis B and C, HIV
- Skin manifestations of immune disease such as Kaposi's sarcoma
- Transplantation medicine as applicable to primary care particularly in management of organ transplants such as heart, lung, liver, kidney, cornea
- Indications and complications of transplantation e.g. immunosuppression and immunosuppressant drugs

Symptoms and signs

- Recurrent infections – use of risk assessment check list to assess susceptibility

Investigations

- Immune disorders: immunoglobulin levels including IgG, IgM serology, and complement.

Case discussion

Leo, A 15-year-old boy presents with a history of redness and soreness around his mouth and vomiting after eating a peanut. His mother tells you he had 'lactose intolerance' in childhood but has grown out of it. He is previously well and is unsure whether he has any other history of specific reactions.

He is known to be atopic with chronic eczema which has become an embarrassment and is stopping him from swimming. His hay fever is usually sufficiently controlled with occasional antihistamines, but he is getting worsening asthma in the hay fever season, and during exercise.

His mother wonders whether you could refer him to a clinic for 'allergy testing'. How would you respond?

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are the personal challenges I face in caring for patients with a history of allergy? How do my personal beliefs about the impact of allergies on wellbeing influence the care that I provide? Do I listen without preconceived ideas to patients' thoughts on allergies or intolerance even if unlikely to have any medical basis?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What are my attitudes towards people with allergies? If the patient had been 3 years old, or 30 years old, instead of 15, might that have changed my management? Do I empower the patients to self-manage and to have confidence in accessing information on their condition and using treatments appropriately?

<p>Communication and consultation</p> <p>This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.</p>	<p>How do I ensure that I accurately assess the needs and health beliefs of a 15yr old in the presence of her mother?</p> <p>How do I respond to the inherent uncertainties in diagnosis and management?</p> <p>How do I seek to understand how the patient and family might feel about the risk of further events, the medications required and the fear of death from anaphylaxis</p>
<p>Data gathering and interpretation</p> <p>This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.</p>	<p>What other questions should I ask to help me with my diagnosis?</p> <p>Do I know how to take an allergy history and understand the important key points to enable me to adequately assess risk and document symptoms in a way that accurately describes allergy?</p> <p>What investigations, if any, could I do in primary care?</p> <p>What is 'allergy testing'? How can it be performed?</p> <p>Do I understand different indications for Skin Prick Testing, blood tests or patch test?</p>
<p>Clinical Examination and Procedural Skills</p> <p>This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.</p>	<p>How would I clinically assess and manage a patient presenting with acute angio-oedema?</p>
<p>Making decisions</p> <p>This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.</p>	<p>How do I explore other factors which might influence her health beliefs about his management?</p> <p>How can I incorporate shared decision-making in my management?</p> <p>What options are available to me if I am unsure what to do?</p>
<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>What management options might be considered?</p> <p>Do I know the right dose of adrenaline for age and can I discuss types of devices, needle length etc?</p> <p>How do I assess the need or urgency of referral?</p> <p>How can I empower patients and their carers to recognise symptoms of anaphylaxis if unintended allergen exposure occurs, and train them to use adrenaline devices if needed?</p> <p>How do I provide the patient / family with information on next steps in the management process and also with</p>

	emergency management plans which they can share with school, college etc?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	In what ways might I know or find out whether a patient has an allergy (e.g. ask in consultation, Medic Alert bracelet)? How far am I aware of the nature of multi-systemic allergy including rhinitis and its associations with asthma, and food allergy with gastrointestinal, respiratory and skin symptoms?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	Am I aware of the boundaries of primary care and the role of the specialist services? What do I know about allergy services in my area? To whom would I make a referral? How can I coordinate ongoing care with the specialist multi-disciplinary teams? What are the best ways of communicating with regionalised teams such as allergy services?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	What do I know about the evidence-based management of allergy and do I understand and implement key national guidelines? What are my personal educational needs that this scenario identifies and how will I address them? Who might be able to help me? In what ways can I assess and improve the care of patients with allergy through Quality Improvement or audit?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	What systems does my practice have in place for recording patient allergies? What shared care arrangements would I expect to be in place for patients with severe allergies? What further support does the practice need to provide?
Practising holistically, safeguarding and promoting health This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-	How do I assess the psychological and social impact of diagnosis on QOL including school or nursery setting, social occasions, travel and fear of reactions? How do I balance health anxiety with actual health risk?

management and care planning with patients and carers.	What other aspects of health promotion need to be addressed?
Community orientation This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.	How common are clinically significant allergies in my practice population? What are the cultural differences in my patient population and how does this impact on management of allergy? What support can to be identified in my locality? What voluntary organisation might be able to offer support and resources?

How to learn this area of practice

Work-based learning

General practice is a good place for you to learn how to manage immune and allergic disorders because of the wealth of clinical material. Patients will present with various symptoms, at varying stages in the natural history of their illness. Discussion with a trainer will aid specialty trainees in developing strategies to help in problem-solving. Supervised practice will also give trainees confidence.

In particular, the GP specialty trainee should be able to gain experience in the management of immune and allergic disorders as they present in the community (incidental, acute and chronic), including life-threatening emergencies. Primary care is also the best place to learn about holistic chronic disease management (e.g. Immunosuppressed patients, atopy, food allergies, occupational allergies).

The acute setting is the place for you to learn about the immediate management of life-threatening presentations; you will also learn about the interpretation of clinical findings, and the use of appropriate specialist investigations such as serology and allergy testing. Outpatient or clinic settings are ideal places for seeing concentrated groups of patients with immune problems.

GP Specialty Training programmes should offer you the opportunity to attend these clinics when working in other hospital posts and during your general practice-based placements.

Self-directed learning

There is a growing body of e-Learning to help you consolidate and build on the knowledge you have gained in the workplace. You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (www.e-lfh.org.uk) .

Learning with other healthcare professionals

Chronic disease management in primary care is a multidisciplinary activity. As a specialty trainee it is important for you to gain an understanding of the diagnosis, management and follow-up of patients with immune and allergic disorders even when the clinical lead is taken by secondary care or a community clinical nurse specialist. It is also important to understand the role of specialist allergy services and when it is appropriate to access their expertise.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Management of chickenpox contact in pregnancy
- Indications and contraindications to routine immunisation in an immunosuppressed child
- Management of urticaria.

Clinical Skills Assessment (CSA)

- A young woman is concerned that her lifestyle may have put her at risk of HIV and requests testing
- A parent requesting allergy testing for their child with eczema.
- A woman who works as a beautician with suspected contact dermatitis from cosmetic products.

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about having to explain anti-D immunisation to a pregnant patient who has not understood the hospital specialist's explanation
- Audit of the practice data on the appropriateness of prescribing adrenaline devices for patients at risk of anaphylaxis
- Reflective learning log entry about safety advice for a parent of a child with severe peanut allergy
- CEPS about administration of seasonal flu immunisation.

Cardiovascular Health

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to cardiovascular health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in cardiovascular health

As a GP, your role is to:

- Manage the risk factors for cardiovascular disease as an essential part of health promotion activity in primary care. You should be able to describe the key research findings that influence management of cardiovascular risk and disease. A large part of our work in primary care involves working with patients to engage them in making healthy life style choices, and limiting unhealthy behaviours
- Communicate the risk of cardiovascular disease clearly and effectively in a non-biased manner, and use disease registers and data-recording templates effectively for opportunistic and planned monitoring
- Manage cardiovascular emergencies in primary care
- Accurately diagnose and manage symptoms that may potentially be caused by cardiovascular conditions
- Monitor and manage the care of patients with long-term cardiovascular conditions such as hypertension, chronic heart failure or atrial fibrillation
- Be aware of the impact that cardiovascular disease may have on disability and fitness to work, as well as the legal obligations relating to driving. You should also be able to recognise the cultural significance attached to heart disease
- Be aware of the potential psychological and social impact of cardiovascular conditions
- Advise on cardiovascular screening, such as the UK Aortic Aneurysm screening programme.

Emerging issues in cardiovascular health

Cardiovascular disease (CVD) causes more than a quarter of all deaths in the UK; coronary heart disease (CHD) is the UK's single biggest killer, and around 40,000 people die each year in the UK from stroke. There are also considerable variations in mortality throughout the UK: early deaths from CVD (before the age of 75) are most common in the north of England, central Scotland and the south of Wales, and lowest in the south of England. A very significant number of people are living with cardiovascular disease in the UK, affecting equal numbers of men and women. As the population

ages and grows and with improving survival rates from cardiovascular events it is likely that the number of people affected by cardiovascular disease will rise.

GPs are involved in coordinating and commissioning care to provide appropriate acute and chronic disease management for patients at all stages of cardiovascular disease. You should be able to describe the key government policy documents that influence healthcare provision for cardiovascular problems.

Other emerging issues in cardiovascular health:

For example:

- Defining and measuring overall cardiovascular health
- Assessing and communicating lifetime risk for cardiovascular disease
- Addressing depression as a risk factor for and associated condition of heart disease and stroke
- Examining cognitive impairment due to cardiovascular disease
- Improving the cardiovascular surveillance system.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Cardiac murmurs
- Chest pain (including factors suggestive of cardiac origin)
- Circulatory symptoms of ischaemia, thrombosis, chronic arterial and venous insufficiency
- Dyspnoea
- Oedema: peripheral and central
- Palpitations and arrhythmias
- Syncope, dizziness and collapse including non-cardiovascular causes
- Symptoms and signs of stroke/Transient Ischaemic Attack (TIA).

Common and important conditions

- Acute cardiovascular problems including cardiac arrest, acute coronary syndrome, acute myocardial infarct, acute left ventricular failure, dissecting aneurysms, severe hypertension and life-threatening arrhythmias, cardiogenic shock, acute ischaemia of limbs and gut, TIA and stroke
- Arrhythmias including conduction defects such as atrial fibrillation and flutter, heart block, supraventricular tachycardia, ventricular rhythm abnormalities
- Cardiovascular conditions for which anticoagulation may be relevant such as Atrial Fibrillation (AF), myocardial ischaemia, peripheral vascular disease and TIA/stroke (including heparin, thrombolysis indications, oral anticoagulation)
- Cardiomyopathies: primary and acquired, including dilated, hypertrophic obstructive
- Cerebral disease for which cardiovascular risk factors are important e.g. stroke, vascular dementia (see also Topic Guide 4.17 Neurology)
- Circulation disorders including:
 - arterial problems such as peripheral vascular disease, vasculitis, aneurysms (cerebral, aortic and peripheral); and
 - venous problems such as venous thromboembolism, pulmonary embolism, Raynaud's disease, varicose veins, venous and arterial ulcers
- Congenital heart disease such as coarctation of the aorta, Ventricular Septal Defect (VSD), Atrial Septal Defect (ASD), Patent Ductus Arteriosus (PDA) and presentation of these both in children and adults
- Coronary heart disease including complications such as mural thrombus, ventricular aneurysm, and rhythm disturbance
- Drug-induced heart disease (e.g. secondary to cancer treatment with chemotherapy/ radiotherapy, recreational drugs)
- Heart failure: acute and chronic including left ventricular dysfunction, right heart failure, and cor pulmonale
- Hypertension: essential (and its classification into stages), secondary, and malignant
- Infections such as viral myocarditis, infective endocarditis, pericarditis, rheumatic fever and complications
- Complications and malfunction of pacemakers relevant to primary care
- Pulmonary hypertension: primary and secondary to underlying causes such as fibrotic lung disease and recurrent pulmonary emboli
- Risk factors for coronary heart disease and other thromboembolic diseases such as lipid disorders, diabetes, hypertension
- Valvular problems such as mitral, tricuspid, pulmonary and aortic stenosis and regurgitation.

Examinations and procedures

- Cardiovascular system examination
- Blood pressure monitoring
- Pulse oximetry
- Use of emergency equipment, including defibrillator, and oxygen delivery
- Emergency cardio-pulmonary resuscitation.

Investigations

- Knowledge and application of current risk assessment tools such as CHADSVASC and HASBLED for atrial fibrillation, QRISK/ASSIGN for Coronary Heart Disease
- Relevant blood investigations such as cardiac enzymes, natriuretic peptides, or D-dimer
- Secondary care interventions such as coronary angiography and stents, perfusion scanning, and CT scans
- Specific cardiac investigations including home and ambulatory BP monitoring, electrocardiogram (ECG), exercise ECG, 24 hour and event monitoring ECGs, echocardiography, venous dopplers and Ankle Brachial Pressure Index (ABPI) measurement.

Service issues

- Cardiovascular health screening, including abdominal aortic aneurysm screening, blood pressure, cholesterol and glucose checks
- Local service provision for cardiovascular healthcare
- Disease registers and data-recording templates for opportunistic and planned monitoring of cardiovascular problems to ensure continuity of care between different healthcare providers
- Effective and appropriate acute and chronic disease management – including medication, prevention, rehabilitation and palliative care for those with end-stage cardiac failure
- Recognition of the social determinants of health in relation to cardiovascular disease
- Current population trends in the prevalence of risk factors and cardiovascular disease in the community
- Cardiovascular rehabilitation after a stroke or cardiac event
- Appropriate support services nationally and locally (for example, smoking cessation and weight loss)
- Safe prescribing, including indications for and monitoring of commonly used drugs such as antihypertensive drugs, anticoagulants and statins
- Management of polypharmacy, which is common in patients with cardiovascular problems.

Case discussion

Mr Black is a 58-year-old bus driver who presents to your clinic with a history of central chest pain radiating to the left arm. This occurs on exertion and is relieved by rest. It started about one month ago and has not got any worse.

He has no history of hypertension, diabetes or hyperlipidaemia that you are aware of, but he rarely visits the practice. He smokes. There is no family history of ischaemic heart disease, but his mother developed diabetes from the age of 65.

On examination, he is comfortable. His blood pressure is 155/95 with a pulse rate of 85 b.p.m. and regular. His BMI is 32 kg/m².

[Example adapted from C. Heneghan in Cardiovascular Disease in Primary Care - a guide for GPs, RCGP Publications, 2010.]

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How important is it for me to model healthy living for my patients? What actions can I take to help promote an organisational culture in which the health of the members is valued and supported? How well am I balancing work and life?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How might cardiovascular disease prevention vary in different cultures and sexes? Should overweight smokers be offered open access to treatment if they do not lose weight or stop smoking?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How would I go about explaining cardiovascular risk to this patient? How could I influence a change in Mr Black's lifestyle? How would I explore this patient's ideas, concerns and expectations?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What additional information do I need? If I have access to same day ECG, how confident am I at interpreting it? Would blood tests be useful? Which ones?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	How well can I assess and manage a patient presenting with acute breathlessness due to LVF?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What is my differential diagnosis? What drug treatment might I suggest for Mr Black? How does the prevalence of cardiovascular disease vary within the UK population?
Clinical management This concerns the recognition and management of common medical	What are the national guidelines for diagnosis and longer-term treatment in this case?

conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	<p>What would be the key features of my safety-netting conversation with Mr Black?</p> <p>What advice would I give him about smoking cessation?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>How would I manage his multiple risk factors at this initial consultation?</p> <p>What can I do to help manage the risk in this patient?</p> <p>What are the criteria for referral to secondary care and what would I include in my referral letter?</p> <p>Am I familiar with the DVLA guidance on fitness to drive?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>How might other members of the practice team be involved in the care of this patient?</p> <p>What rapid access clinics are available locally?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>How do I keep up to date with developments in cardiovascular health?</p> <p>What learning opportunities does this case present for me?</p> <p>What quality improvement could I consider for patients with Ischaemic Heart Disease at my practice?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>How do I record cardiovascular risk on my IT system?</p> <p>What Read code might I use for this patient?</p> <p>What computerised resources might I use in the consultation with Mr Black?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-</p>	<p>How do I take my patients' occupations into account when assessing, managing and advising them?</p> <p>What are his home circumstances? What would I advise him about having sex? What about driving and fitness to fly?</p> <p>What patient information resources are available?</p>

management and care planning with patients and carers.	<p>What are the social and psychological impacts of Mr Black's cardiovascular problems on his friends and dependants?</p> <p>How would I address the cultural significance of the heart as a seat of emotions?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What community resources are available for cardiovascular disease prevention in my area?</p> <p>Are there any important characteristics of the local community that might impact on patient care, particularly the epidemiological, social, economic, and ethnic features?</p>

How to learn this area of practice

Work-based learning

General practice is an excellent place for you to learn how to manage cardiovascular problems. Patients will present with a wide range of symptoms, and at varying stages in the natural history of their illness. Critical, professional discussions with your trainer will help specialty trainees to develop problem-solving skills. Supervised practice will also give trainees confidence.

In particular, the GP specialty trainee should be able to learn about risk factor management and gain experience in the management of cardiovascular problems as they present (acute and chronic), including emergencies. Primary care is also the best place to learn about cardiovascular chronic disease management (including angina, heart failure, hypertension, post-myocardial infarction (MI), peripheral vascular disease and stroke).

The acute hospital setting is a good place to learn about management of cardiovascular emergencies including acute coronary syndrome (ACS), MI, stroke and aortic aneurysms. This could be in a variety of secondary care placements including cardiology, emergency medicine or general medicine. Some GP specialty training programmes have placements of varying lengths with cardiologists; here, you may also get the opportunity to become familiar with the invasive management of cardiovascular problems: angioplasty, coronary artery bypass grafts, transplantation, other forms of vascular surgery (carotid endarterectomy, vascular bypass), many of which you are likely to have to discuss with your patients in primary care during your career.

Cardiovascular care is increasingly delivered via specialist community clinics where trainees may have the opportunity to observe the investigation and management of common cardiovascular problems and familiarise themselves with local care pathways. Outpatient or clinic settings are ideal places for seeing concentrated groups of patients with cardiovascular problems. They also provide you with opportunities to learn about secondary care investigation of cardiovascular problems (exercise tests, radionuclide scans, MRI/CT, carotid dopplers, angiography and echocardiography).

Self-directed learning

You can find e-Learning module(s) relevant to this Topic Guide at e-Learning for Healthcare (e-lfh.org.uk)

Many postgraduate deaneries provide courses on cardiovascular problems. Other providers include universities and the Royal College of General Practitioners. There is a growing e-Learning resource to help you consolidate and build on the knowledge you have gained in the workplace. This includes NHS Evidence Search which provides access to information on a wide variety of topics including chest pain, stroke, hypertension, chronic kidney disease, deep vein thrombosis etc. www.evidence.nhs.uk . You can learn about patients' experiences of living with cardiovascular problems, from early symptoms to diagnosis and management, through the wider range of multimedia clips at Healthtalk www.healthtalkonline.org

Learning with other healthcare professionals

Chronic disease management in primary care is a multidisciplinary activity. As a specialty trainee it is important for you to attend nurse-led cardiovascular disease annual review assessments in practice and gain an understanding of the follow-up of hypertensive patients in the practice's clinics that are often led and delivered by a practice nurse. It is also important to understand the role of district nurses in the assessment and management of leg ulcers or ankle oedema by attending their clinics or home visits. You should also take the opportunity to observe cardiovascular rehabilitation programmes led by physiotherapists.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Interpreting ECG tracings
- Adverse drug effects of anti-hypertensives
- Genetics of familial hypercholesterolaemia.

Clinical Skills Assessment (CSA)

- Man is concerned that he may have heart disease having experienced chest pain when he exercises at the gym
- Woman with well-controlled heart failure has increasing exertional dyspnoea over the past fortnight
- Father is concerned about sudden death in young athletes and requests a routine ECG for his 12-year-old son who has joined a running club.

Workplace-based Assessment (WPBA)

- Learning log reflecting on having to explain a pacemaker to a patient who has not understood the consultant's explanation
- Log entry about the logistics and value of the practice coronary heart disease clinic
- Consultation Observation Tool (COT) about advice for a man requesting a calcium score after a private medical examination when you are unsure about the evidence for this
- CEPS about performing CPR on a collapsed patient.

Dermatology

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to dermatology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in dermatology

As a GP, your role is to:

- Diagnose, treat and advise on common skin conditions efficiently
- Recognise the importance of the psychosocial impact of skin problems
- Prescribe appropriately and safely
- Appreciate the complexity of care that is needed with some skin problems
- Share management with secondary care where needed.

Emerging issues in dermatology

- The effect of an ageing population and increased exposure to sun damage in an older population
- The increased prevalence of aesthetic surgery
- Biological treatments for chronic skin conditions.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether it is acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic, environmental and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

These include:

- Birthmarks
- Blisters
- Dry skin and scaling
- Erythema
- Hair loss and hirsutism
- Hyperhidrosis
- Hyper-, hypo- and depigmentation
- Lichenification
- Nail dystrophies
- Pruritus
- Purpura, petechiae
- Pustules, boils
- Rashes and eruptions
- Scaly and itchy scalp
- Skin lesions, including dermal and subcutaneous lesions
- Ulceration including leg ulcers and pressure sores.

Common and important conditions

- Acne rosacea, rhinophyma, perioral dermatitis
- Acne vulgaris including indications and side effects of isotretinoin
- Blistering diseases including pemphigoid, pemphigus, porphyria
- Dermatological emergencies such as Stevens-Johnson syndrome, toxic epidermal necrolysis, erythroderma and staphylococcal scalded skin syndrome
- Eczema: infantile, childhood, atopic, seborrhoeic, contact allergic, irritant (including occupational), discoid
- Hair disorders including alopecia, hirsutism, fungal infection, infestations including lice

- Hidradenitis suppurativa
- Hypopigmentation (e.g. Vitiligo) and hyperpigmentation (e.g. acanthosis nigricans)
- Infections: viral (e.g. warts, molluscum contagiosum, herpes simplex and zoster), bacterial (e.g. staphylococcal + MRSA, streptococcal), fungal (e.g. skin, nails), spirochaetal (e.g. Lyme disease, syphilis), TB, infestations (e.g. scabies, lice), travel-acquired (e.g. leishmaniasis)
- Lichen simplex, lichen planus, granuloma annulare, lichen sclerosus, morphea
- Light sensitive disorders such as polymorphic light eruption, porphyria, drug reactions
- Light treatments such as UVB, PUVA
- Pityriasis rosea and Pityriasis versicolor
- Pruritus either generalised or localized, including underlying non-dermatological causes (e.g. thyroid disease, iron-deficiency, pregnancy etc.)
- Psoriasis: plaque, guttate, flexural, scalp, nails, pustular and erythrodermic. Associated morbidity; physical such as cardiovascular disease and psychological such as depression
- Seborrhoeic keratosis
- Skin manifestations of psychiatric conditions such as dermatitis artefacta, trichotillomania
- Skin manifestations of internal disease including pyoderma gangrenosum, systemic lupus erythematosus (SLE), discoid lupus erythematosus (DLE), necrobiosis lipoidica, erythema nodosum, erythema multiforme, dermatitis herpetiformis, dermatomyositis, vitamin and mineral deficiencies such as scurvy
- Skin tumours including:
 - benign lesions (e.g. pigmented naevi, dermatofibroma, cysts);
 - malignant lesions (e.g. malignant melanoma, squamous cell carcinoma, basal cell carcinoma, mycosis fungoides, Kaposi's sarcoma, metastatic tumours); and
 - lesions with malignant potential (e.g. solar keratoses, Bowen's disease, cutaneous horns and keratoacanthomas)
- Ulcers and their causes – for example, arterial, venous, neuropathic, pressure, vasculitic, malignant
- Urticaria, angio-oedema and allergic skin reactions including adverse drug reactions
- Wounds (e.g. burns and scalds), scar formation and complications.

Examinations and procedures

- Common terminology used to describe skin signs and rashes (e.g. macule, papule)
- Examination of the rest of the skin, nails, scalp, hair, and systems such as joints, where appropriate (e.g. psoriasis)
- The need to recognise skin conditions across a range of skin types.

Investigations

- Skin and nail sampling, immunological tests including patch and prick testing, biopsy, photography and dermoscopy
- Relevant blood tests for underlying causes of skin conditions (e.g. lupus, thyroid disease).

Service issues

- Dermoscopy: indications, availability in practice, when to refer
- Waiting times for local specialist services
- Role of and access to other health professionals (e.g. dermatology specialist nurses, tissue viability nurses, podiatrists).

Case discussion

Jane Smith is 36 years old. She is a teacher and lives with her long-term partner. They have two daughters, aged ten and eight. She suffers from psoriasis, has borderline hypertension and a high BMI (31 kg/m²). She smokes 20 cigarettes a day as does her partner. As you are the whole family's GP, you are aware that their relationship has been unhappy from time to time.

She has tried steroid creams of varying potency and more recently she has been using a vitamin D analogue ointment but finds this quite 'irritant' and so has abandoned it. She has previously had light therapy but tells you that a further course would be very inconvenient as she works all week.

You ask her how having psoriasis makes her feel and she bursts into tears. 'No one has ever asked me that before,' she says. Jane feels that her psoriasis looks awful and she is conscious that she leaves a trail of skin scales wherever she goes. She refuses to take her daughters swimming and is so unhappy about exposing her body that she cannot get undressed in front of her partner. They have not made love for years. Recently she struggled to hide her tears when her daughter said, 'Why do you never wear pretty skirts like my friend Kirsty's mum?'

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do my own values and experiences influence my attitudes to treating skin problems? How hard should I work to help Jane if she seems unmotivated?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How can I balance my patients' needs with the availability of commissioned services? How can I maintain confidentiality between members of the same family who are all patients at the surgery?

<p>Communication and consultation</p> <p>This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.</p>	<p>What further questions would I ask to explore Jane's ideas, concerns and expectations?</p> <p>How might I help Jane to develop her own motivation to lose weight or stop smoking?</p>
<p>Data gathering and interpretation</p> <p>This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.</p>	<p>What tools could I use to measure severity (e.g. DLQI / PDI)?</p> <p>Given the increased cardiovascular (CV) risk in patients with psoriasis, what tests/examinations could I perform to get an objective idea of her overall CV risk (e.g. Qrisk2)?</p> <p>How would I explain this risk to Jane in a way which she could understand easily?</p>
<p>Clinical Examination and Procedural Skills</p> <p>This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.</p>	<p>What other body systems would I examine in this case, and what would I be looking for?</p>
<p>Making decisions</p> <p>This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.</p>	<p>Am I confident I can diagnose psoriasis and distinguish it from other common skin conditions?</p> <p>Am I confident that I would know when to step up or step down treatment?</p>
<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>What topical treatments might I prescribe for the various affected areas?</p> <p>How would I approach discussions about the inheritance of psoriasis?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>Should I consider referring her for consideration of oral second-line therapies (e.g. methotrexate / ciclosporin)?</p> <p>If so, what advice would I give prior to referral (noting that she is a smoker and has borderline hypertension)?</p> <p>If her treatment is going to be topical, how is she going to treat her back and other hard to reach places?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in</p>	<p>What resources might be available in the primary health care team to help me manage this patient?</p> <p>Are there any other members of the team who could help?</p>

real-life practice, and demonstrating flexibility with regard to career development.	Are there any services I could signpost Jane to which might offer help with her relationship?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	How could I design a quality improvement project in my surgery around psoriasis? What advice would I give regarding the use of topical steroids in psoriasis?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	What advice might I give about a pre-payment prescription? How can I record the distribution of her psoriatic plaques on the computer software?
Practising holistically, safeguarding and promoting health This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.	Jane is a smoker. Should I use this opportunity to discuss this with her? What is the additional risk of chronic, moderate or severe psoriasis accelerating atherosclerosis? How will I discuss CVS risk factors? What might be the potential differences between my agenda as the doctor, and Jane's agenda as the patient?
Community orientation This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.	Do we provide sufficient support in the community for lifelong dermatological conditions? When I look around my environment, what things do I see that promote or discourage good skin health? What are the attitudes of society to people with skin conditions?

How to learn this area of practice

Work-based learning

Skin diseases are common, and many are chronic. They will therefore form a large part of your work as a GP. The patient is likely to be an expert on their own skin and can often tell you a lot about their condition. It can be helpful to develop a 'longitudinal consultation' by inviting the patient to come back to discuss their skin problem.

It is very easy to fall into the trap of dismissing many skin diseases as trivial (acne, for example), but patients often tell us that they have difficulty raising the issue of their skin problem, even with a health professional. The truth is that it can have a considerable impact on their lives and their psychosocial wellbeing. Recognising this and treating the condition well and sensitively makes an enormous difference.

Consider discussing with practice members referrals that are made to dermatology specialists by yourself and your colleagues to establish what exactly you and your patients are hoping to achieve from the referral. Review your referral again after the patient has been seen to decide whether the same benefit might have been achieved from resources available in primary care.

Consider arranging a Patient Satisfaction Questionnaire (PSQ) for patients with eczema or psoriasis in order to review your delivery of care. An annual Dermatology Life Quality Index (DLQI) assessment takes less than a minute to complete and would demonstrate to your patient that you are interested in the possible detrimental effect of their disease on their quality of life.

Also consider regularly auditing your patients who are on repeat prescriptions for psoriasis treatments. Have you considered whether they might have psoriatic arthritis, that they have previously dismissed as 'wear and tear'?

Attending community-based and GPwSI clinics can provide valuable learning opportunities. You can also reflect on each case and ask yourself: 'Why was referral deemed necessary and what value-added input has the specialist provided?'

Self-directed learning

Dermatology is high on the learning needs of most GP specialist trainees. As a result, you will find that talks on the subject are regularly included in many continuing education programmes. The Primary Care Dermatology Society's (PCDS) mission is to educate and disseminate high standards of dermatology in the community. They run a regular series of 'Essential Dermatology' days up and down the country, as well as educational events on minor surgery and dermoscopy (i.e. skin surface microscopy for increasing the accuracy in diagnosing both pigmented and non-pigmented lesions). Other excellent resources and leaflets are available on the British Association of Dermatologists website (www.bad.org.uk). DermnetNZ is an excellent source for pictures and information on a wide range of skin problems (www.dermnetnz.org).

At the time of writing, Cancer Research UK have developed a skin cancer tool kit with multiple images of suspected lesions and links to resources (www.cancerresearchuk.org).

Learning with other healthcare professionals

Experienced GPs will have seen a lot of skin disease, so ask them for their thoughts. Our nursing colleagues too are a reservoir of knowledge. As well as dermatology nurse specialists, health visitors and district nurses also have valuable dermatological knowledge.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of a malignant skin lesion from photographs
- Management of psoriasis
- Differential diagnosis of alopecia

Clinical Skills Assessment (CSA)

- A woman who has patchy hair loss and was advised to attend by her hairdresser (patient will provide photograph)
- A man with dark skin has dry itchy skin with areas that have become darker and roughened (patient will provide photograph)
- A waiter with excessive sweating on palms and axillae affecting his work.

Workplace-based Assessment (WPBA):

- Consultation Observation Tool (COT) about a teenager with moderately severe acne
- COT about a mother whose baby has widespread infantile eczema
- Audio COT with a woman who has a rash which she thinks looks like Lyme disease following a weekend camping.

Ear, Nose and Throat, Speech and Hearing

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to ear, nose, throat and mouth problems by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of people with ENT and mouth problems

As a GP, your role is to:

- Identify symptoms that fall within the range of normal or are caused by self-limiting conditions
- Know the epidemiology and understand how to recognise oral, head and neck cancers including the risk factors, and identify unhealthy behaviour as well as being able to refer appropriately
- Offering smoking cessation advice and treatment
- Ensure that a patient's hearing impairment or deafness does not prejudice the information communicated or your attitude as a doctor towards the patient, and be able to communicate effectively
- Promote the benefits of early intervention to ensure people who need hearing aids get the most out of them
- Perform effective assessment including conducting or interpreting more detailed tests (e.g. audiological tests, the Dix–Hallpike test) and treatment including procedures (e.g. nasal cautery and ear wax removal) where indicated
- Demonstrate empathy and compassion towards patients with ENT symptoms that may prove difficult to manage e.g. tinnitus, facial pain, unsteadiness, hearing loss.

Emerging issues in the care of people with ENT and mouth problems

- Guidelines for appropriate management are now widely available but not always used
- Management of patient expectations of the role of antibiotics and using an evidence-based approach to antibiotic prescribing
- Head and neck cancer rates are increasing, and outcomes depend on early diagnosis
- High levels of undiagnosed hearing loss; many more people could benefit from hearing aids than are currently doing so
- E-cigarettes are being increasingly used to aid smoking cessation. Ongoing research into the safety of e-cigarettes and their use for smoking cessation is underway. As a GP you should be aware of the latest evidence and guidance on e-cigarettes, and

smoking cessation more generally, and use your clinical judgement on an individual patient basis

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Symptoms within the normal range which require no treatment, such as small neck lymph nodes in healthy children and 'geographic tongue'
- Cough
- Deafness and the differentiation of types of hearing loss, including sudden hearing loss
- Dental symptoms relevant to general medical practice
- Disturbance of smell and taste
- Earache and discharge
- Epistaxis
- Facial dysfunction: sensory and motor
- Facial pain
- Head and neck lumps
- Hoarseness
- Jaw pain
- Rhinitis and nasal obstruction
- Salivation problems including swelling and obstruction of glands, excessive and reduced salivation
- Sore throat and mouth
- Sore tongue and changes in taste
- Tinnitus
- Vertigo and dizziness
- Snoring and sleep apnoea.

Common and important conditions

- Aesthetic and reconstructive surgery and botulinum toxin therapies
- Congenital abnormalities (e.g. cleft palate/lip, absent pinna, neck lumps)
- Cranial nerve disorders such as Ramsay-Hunt syndrome, Bell's palsy, trigeminal neuralgia, ototoxicity secondary to drugs
- Dental problems presenting in general medical practice (such as abscesses); dental disease due to underlying medical causes (such as anorexia, xerostomia, drug-induced)
- Disorders of the salivary glands such as infection (e.g. mumps), salivary duct stones, connective tissue diseases (e.g. Sjögren's syndrome), tumours (e.g. pleomorphic adenoma, lymphoma)
- Ear disorders: earache and discharge including otitis externa, otitis media with and without effusion, perforation of the ear drum, barotrauma, cholesteatoma, mastoiditis, disorders affecting the skin of the pinna such as infection, eczema, psoriasis, solar damage and malignancy and affecting the cartilage such as injuries and polychondritis
- Emergency treatments such as tracheotomy
- Epidemiology of rarer but potentially serious conditions such as oral, head and neck cancer, taking into account risk factors, and unhealthy behaviour
- Head and neck malignancies including laryngeal, nasopharyngeal, sinuses, salivary glands, tongue, lips and oral cavity, tonsillar including lymphomas, unidentified malignancies presenting with lymphadenopathy
- Hearing aids and cochlear implants, tinnitus maskers
- Hearing problems including deafness such as occupational, presbycusis, otosclerosis, tinnitus and associated speech or language disorders
- Increasing incidence of hearing loss in certain groups, such as people with learning disability or dementia
- Nasal problems including perennial and allergic rhinitis, postnasal drip, adverse drug effect, polyps and other causes of nasal obstruction, epistaxis, trauma, foreign bodies, septal deviation
- Oral problems including pain (e.g. ulceration, lichen planus), infections (e.g. gingivitis, herpes simplex, candidiasis), pre-malignant conditions (e.g. leukoplakia), malignancies (including tonsils, tongue, lips and buccal mucosa)
- Sinus problems including acute and chronic infection, polyps, allergic rhinosinusitis, barotrauma
- Throat problems such as infections, globus, pharyngeal pouch or gastrooesophageal reflux causing a cough
- Tracheotomy management in primary care
- Vertigo: central (e.g. brainstem stroke) and peripheral (e.g. benign paroxysmal positional vertigo, vestibular neuronitis, Ménière's disease, acoustic neuroma). Factors differentiating vertigo from dizziness and light-headedness
- Vocal disorders such as hoarseness, dysphonia, aphonia and underlying causes (e.g. vocal cord nodules, laryngeal nerve palsy). Associations with smoking, occupation and environmental factors.

Examinations and procedures

- Otoscopic appearances of the normal and abnormal ear
- Tests of hearing such as tympanometry, audiometry, tuning fork tests including Weber's and Rinne's, neonatal and childhood screening tests
- Detailed tests where indicated (e.g. audiological tests and the Dix–Hallpike test to help diagnose benign paroxysmal positional vertigo (BPPV))
- Skills which can be used in primary care to effect a cure when indicated (e.g. nasal cautery, ear wax removal and the Epley manoeuvre).

Investigations

- Audiology testing
- X ray, USS, CT and MRI scans
- Endoscopy
- Sleep studies.

Service issues

- ENT, oral and facial symptoms may be manifestations of psychological distress, e.g. globus pharyngeus, atypical facial pain, burning mouth syndrome
- National paediatric screening programme for hearing loss. Effects of ENT pathology on developmental delay, e.g. 'glue ear' can impair a child's learning
- Pathology in other systems may lead to ENT-related symptoms. Examples include gastro-oesophageal reflux disease (GORD) and cerebrovascular accident (CVA). Systemic disease such as haematological, dermatological and gastrointestinal problems may present with oral symptoms, e.g. glossitis caused by iron deficiency anaemia
- Referral criteria and pathways for patients with dental or gingival problems to their general dental practitioner or local community dental services. Access to specialist services in oral medicine or oral and maxillofacial surgery for patients with oral disease
- The impact of hearing loss on quality of life, the relationship between hearing loss and other long-term conditions (e.g. dementia) and community and cultural attitudes to deafness.
- The need to equip the primary care working environment to ensure people who are deaf or have hearing loss, or speech impairment, can contact and access GP services in an accessible way and communicate effectively in waiting areas and consultation rooms
- Community-specific aspects of oromucosal disease related to lifestyle (e.g. chewing paan, tobacco, betel nut, khat/qat, or reverse smoking). Smoking cessation services
- Influence of socio-economic status (especially vulnerable populations such as the homeless) on rates of head and neck malignancy
- Highly specialised and regionally based services such as the provision of cochlear implants
- Relevant local and national guidelines, including fast track referral guidance for suspected cancer.

Case discussion

Mark Johnson is a 25-year-old trainee solicitor who presents with persistent nasal obstruction, runny nose, watery eyes and regular sneezing. The problem is perennial and has been getting worse for years. He also has asthma. He has moved into a flat and has adopted a cat. The use of steroid sprays and antihistamines only marginally improves things and he tells you he is 'fed up with his symptoms' and says, 'something has to be done'. He requests an immediate referral to a specialist. Your examination reveals some form of swelling in the nose, more noticeable on the right than the left.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do I feel when a patient says, 'something has to be done'? Why is this patient presenting now? What do I think his ideas, concerns and expectations might be?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	When should I refer? Would my decision to refer change if the patient had private health insurance?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How do I feel about his demand for referral? How will I manage those feelings in the consultation? How might I deal with his frustrations and anger?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	How can I determine if Mark has been compliant with treatment? How effective is allergy testing (PRIST, RAST or skin tests)? What triggers his symptoms?

Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	How do I determine whether the swellings in the nose are nasal turbinates or polyps or part of the normal nasal cycle?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	How could the history help to determine the cause of his symptoms?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What are the options available in managing this patient in general practice? What is the optimal treatment (drug and dosage)? What are the current guidelines for reducing exposure to house dust mite?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	How might Mark's asthma and nasal symptoms be linked?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	Who else might I involve in the management of this patient? If I refer him, what key features should go in the referral letter? Where can I direct Mark to further information about his condition?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	Do I have sufficient knowledge of nasal anatomy to allow me to detect any abnormality? If not, how could I improve my knowledge? What is the evidence for effectiveness of common ENT treatments? What other resources do I need in my area?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new	How would I know from my IT system whether Mark has had a recent asthma review? What recall systems are in place? How can I check how frequently Mark has been getting any repeat medications?

technologies to access and deliver care and developing relevant business and financial management skills.	
Practising holistically, safeguarding and promoting health This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.	How might these symptoms affect Mark's ability to work and study, and his social life? What would I advise if he asks whether the cat could be contributing to his symptoms?
Community orientation This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.	What are the resource issues relating to providing care for allergies in the NHS?

How to learn this area of practice

Work-based learning

As a GP specialty trainee, you will find the frequency of ENT-related symptoms in primary care makes this the ideal environment for you to learn the basics of history-taking and examination (including identifying what is 'normal'). It is not uncommon for a clinician (GP or other healthcare professional) to have developed additional expertise in ENT and working alongside such an individual can be very beneficial. Local ENT departments are usually very willing to have trainees sitting in outpatient clinics and taking time to arrange a regular session in such a clinic will provide you with invaluable experience. The experience will be enhanced if you can see patients initially and then discuss examination findings and potential management with your supervising colleague. The extensive use of endoscopes and microscopes will greatly facilitate your understanding of ENT pathology. In both scenarios always ask for feedback on cases and look to use structured assessment tools (available online) to document your learning. Make the most of opportunities to observe and discuss common conditions such as hearing loss with an audiologist or hearing therapist.

The frequency of common oral-related symptoms in primary care and the limited undergraduate training in this area make it worth your while attending specialist clinics in oral medicine and oral and maxillofacial surgery. In these clinics you will learn how to examine the mouth, recognise and provide initial management of common oral conditions and appreciate the presenting features of oral cancer and pre-cancerous lesions.

Self-directed learning

You can find an e-Learning module relevant to this Topic Guide at *e-Learning for Healthcare* (e-lfh.org.uk)

It is not uncommon to come across friends and relatives with ENT conditions and this can give you an insight into the impact on quality of life of what may be regarded as 'trivial conditions'. Examples include general upper respiratory tract infections, allergic and non-allergic rhinitis, snoring and deafness. Indeed, as a primary care physician it is essential that you understand the effect of a significant hearing loss on an individual's way of life. It is also important that you understand its isolating effect and appreciate the statement that 'blindness separates an individual from objects; deafness separates an individual from people'.

CRUK oral cancer toolkit. See

https://www.doctors.net.uk/eclientopen/cruk/oral_cancer_toolkit_2015_open/

Learning with other healthcare professionals

As a GP trainee, gaining experience in other medical specialities will give you insight into dealing with common ENT and oral problems. In particular:

- Paediatrics – many children have ENT-related conditions which affect their general well-being and may compromise their education
- Medicine of the elderly – deafness and balance disorders are common
- Immunology – it is not uncommon for systemic allergy to present with symptoms and signs in the ear, nose, oral cavity or throat
- Dermatology – skin conditions affecting the face and scalp, and otitis externa, may present to skin specialists
- Respiratory medicine – it is important to understand that both the upper and the lower airway often need to be treated together
- Oral medicine and oral and maxillofacial surgery – understand that oral signs and symptoms may be a manifestation of underlying systemic disease
- Gastroenterology – gastro-oesophageal reflux disease causing coughing
- Hospital audiology clinics and hearing therapists
- Hearing loss clinics in the high street – these increase access to a range of services.

During your training, spending time with nurses who have ENT experience can be very rewarding. Dental surgeons also have training and experience in managing common oral conditions as well as dental disease, and their opinion is often helpful.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of oral cancer
- Natural history of glue ear in children
- Diagnosis of salivary gland swelling.

Clinical Skills Assessment (CSA)

- Older woman has severe shooting pains in her left lower jaw
- Hearing-impaired man has troublesome tinnitus interfering with his sleep and concentration
- Middle-aged woman has sudden-onset disabling rotational dizziness. Examination expected.

Workplace-based Assessment (WPBA)

- Log entry about the referral criteria for a child with recurrent tonsillitis and the evidence for tonsillectomy as an intervention
- Clinical Examination and Procedural Skills (CEPS) on examining a patient with unilateral deafness and the interpretation of the results
- Consultation Observation Tool (COT) about a singer with persistent hoarseness.

Eyes and Vision

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to eyes and vision by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of people with eye and vision problems

As a GP your role is to:

- Understand how visual loss and impairment is a significant cause of physical and psychosocial morbidity, which is a barrier to accessing healthcare. This can be overcome by appropriate rehabilitation for the visually impaired
- Co-ordinate access to community and secondary care services
- Undertake opportunistic health screening, ensuring that patients have regular eye tests and are referred appropriately and in a timely manner
- Recognise how sight loss can interfere with mobility and lead to social isolation and difficulty in communication (such as use of telephones or computers), as well as the impact of poor eye health on loss of confidence, mental health, activities of daily living, independent living and ability to work
- Take a focused history, examine, diagnose and treat common eye conditions and know when to refer to specialist care.

Emerging issues in the care of people with eye and vision problems

Eye disease impacts significantly on GP consultations and has wider social and economic consequences. Treating eye problems and effective screening is having an impact on the numbers of those with sight loss but there is much more to be done.

Caring for those with sight loss goes beyond knowing which referral pathway should be used. GPs need to know how to access rehabilitation low vision aid services, how to access help to continue to live independently, and how to make general practices and written information accessible for those with poor vision.

Sight loss occurs in conjunction with other complications of multiple morbidity and can make other aspects of care (such as being able to take medication safely) more complicated. People who cannot see may lose their non-verbal communication skills, and this should not affect or prejudice your interactions with or attitude to them. Visual loss is a significant cause of physical and psychosocial morbidity, which can act as a barrier to accessing healthcare. Rehabilitation can help promote independence and reduce social problems as well as enable access to healthcare.

In the UK, the prevalence of sight loss due to cataract, macular degeneration, glaucoma and diabetic retinopathy is increasing as the population ages. Difficulties with reading small print, cooking, mobility, taking medication and recognising faces may be missed unless a careful history is taken. Visual acuity, contrast sensitivity and visual fields may be affected.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Colour blindness, changes in colour vision
- Diplopia, squint and amblyopia
- Discharge from the eye
- Dry eyes
- Entropion/ectropion
- Epiphora
- Eyelid swellings
- Falls
- Orbital swellings
- Red eye: painful and painless
- Visual disturbance: complete/partial loss of vision, distorted vision, floaters, flashes
- Visual field disturbance.

Investigations

- Performing and interpreting fundoscopy, visual acuity tests and results, red reflex testing, visual field tests, Amsler charts
- Interpreting tonometry, optician reports, and tests of colour vision
- Examining eyes for foreign bodies, and corneal staining with fluorescein
- Key blood tests (e.g. for giant cell arteritis).

Common /important conditions

- Cataracts – congenital, acquired such as drug induced

- Colour blindness
- Congenital, neonatal and childhood eye problems, such as prematurity, congenital cataract, vitamin A deficiency
- Conjunctivitis including infectious causes (bacterial, viral, parasitic and chlamydial), and allergic causes
- Contact lens use including infections such as acanthamoeba, corneal damage
- Diabetic eye disease
- Disorders of tears and tear ducts such as dacryocystitis, sicca syndrome, epiphora, dry eyes
- Disorders of the pupil such as Horner's syndrome, Holmes-Adie
- Dual sensory impairment and loss (vision and hearing)
- Episcleritis, corneal or dendritic ulcers, pterygium, pinguecula, corneal injury and erosions
- Eye trauma including penetrating trauma, corneal abrasions, chemical burns, contusions, hyphaema
- Eyelid problems such as blepharitis, ectropion, entropion, chalazion, Meibomian cysts, and styes
- Genetic eye problems such as retinoblastoma, retinitis pigmentosa
- Glaucoma – acute, closed angle and chronic open angle
- Intracranial pathology affecting vision
- Keratitis including association with other diseases such as rosacea, thyroid disease
- Keratoconus
- Loss of vision or visual disturbance; differential diagnoses and appropriate management including timescale of urgency
- Macular degeneration – age-related (wet and dry), drusen
- Malignancy such as retinoblastoma, lymphoma, melanoma
- Ophthalmic herpes zoster
- Ophthalmic manifestations of infections such as syphilis, TB, toxocariasis, toxoplasmosis
- Optic neuritis and neuropathy
- Orbital infections such as cellulitis, tumours
- Red eye – differential diagnoses and appropriate management including timescale of urgency
- Refractive error including myopia, hypermetropia, astigmatism
- Retinal problems including:
 - atrophy;
 - detachment;
 - haemorrhage, exudates, blood vessel changes associated with systemic diseases, such as hypertension, diabetes, haematological diseases thromboses or emboli;
 - tumours such as melanoma, neuroblastoma; and
 - vascular lesions
- Squint – childhood and acquired due to nerve palsy, amblyopia, blepharospasm
- Subconjunctival haemorrhage
- Systemic diseases with associated eye symptoms/signs, such as hypertension, diabetes, raised intracranial pressure, multiple sclerosis, sleep apnoea, giant cell arteritis
- The effect of stroke and migraine on vision
- Thyroid eye disease
- Uveitis including knowledge of underlying associations e.g. inflammatory bowel disease, connective tissue diseases
- Vitreous detachment.

Service issues

- Appropriate and cost-effective prescribing (e.g. eye drops and biological therapies)
- Benefits of certification of visual impairments and how this enables access to benefits, and local authority assessment of need
- The level of visual deficit required before certification of visual impairment can be issued
- Guide dogs for the blind
- Liaison with other agencies and reminder systems to ensure appropriate follow up of eye conditions
- Local NHS guidance on funding for certain treatments (e.g. cataract surgery)
- Relevant policies and legislation (including disability)
- Restrictions on driving and employment, including DVLA (Driver and Vehicle Licensing Authority) guidance for visual acuity
- Services available to those with vision problems; from acute hospital to community optician, support from charities and the third sector
- Types of low vision aids available (e.g. large print, audio, magnifiers, long cane, or braille).

Case discussion

It's Monday morning and your second patient is Mr Khan, who is 75 years old. He was last seen six months ago regarding his problems with sleeping. He has lived alone since his wife died suddenly from a stroke three years earlier.

Mr Khan is accompanied by his daughter, whom you have not met before. She tells you that her dad has asked her to come along as he is a bit upset since his visit to his optometrist last week. He states, 'It was not the girl I usually see at the optician. This man flashed a lot of lights in my eyes then said I had a major problem with my vision and should come to see you about going to the hospital. What's worse is that he said I shouldn't drive my car.' His daughter adds, 'Dad was so upset he didn't even ask what was wrong. His car is his lifeline. I went back with him to the optician and they told me he probably has something called 'ARMD' – he wrote it down for me.'

He has no relevant previous history, he is not taking any medication and comes in regularly for his 'flu jab and health checks with the nurse. He had noticed his vision was deteriorating but assumed this was because he needed new glasses; that was why he went for an eye check. He says, 'I don't go out at night any more as I can't see well enough. I also noticed a funny thing – I can see the television better when I look from the side rather than from the front.'

The optometrist noted a marked loss of visual acuity since his last eye examination and feels that this is likely to be due to age-related macular degeneration. You advise Mr Khan that you will refer him to the local eye department and print off some information regarding eye charities in large print, which he can read while he awaits his appointment.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do I feel about telling Mr Khan that he must not drive his car?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What would I do if he drives the car against my advice?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How can I explore the psychological impact of visual loss in the consultation with Mr Khan? How would I explain the likely outcome of his condition? What do I think might be the obstacles to Mr Khan having regular eye tests? How would I explore all those issues?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What lifestyle factors would I record in the notes?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	Why should I use a pin hole when assessing visual acuity? When is an Amsler grid useful in assessing a patient? How confident do I feel performing fundoscopy? How could I improve my clinical examination skills in this area?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What other blinding eye conditions present with gradual onset?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	Which of my patients are entitled to free eye tests under the NHS? How easy is it to arrange for my patients to receive an eye test at home?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of	What co-morbidities are common with sight loss?

co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	<p>What are the risk factors for age-related macular degeneration (ARMD/AMD) and how common is it?</p> <p>What role has his bereavement played in this scenario?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>How urgent is this hospital referral?</p> <p>What role does an optician play in caring for patients with eye conditions? How can I collaborate with local opticians to provide a better service for my patients? Can I read the GOS (General Ophthalmic Services) letter from the optician and understand what the different terms mean?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What are the current issues around treating age-related macular degeneration?</p> <p>How do I keep myself updated about ophthalmological conditions?</p> <p>How confident am I at using an ophthalmoscope?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>How should I ensure that my patients are not 'lost to follow-up'?</p> <p>What does the practice provide to support visually impaired patients?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How will I manage the psychological impact of sight loss in Mr Khan?</p> <p>Why do I think Mr Khan did not seek help earlier for the problems with his vision?</p> <p>What do I know about Mr Khan's living accommodation? Will he need additional support at home?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of</p>	<p>What social benefits and services might be available to this patient and his carers if he is certified visually impaired?</p> <p>Where do I find the DVLA rules on sight impairment and who is required to inform the DVLA?</p>

delivering evidence-based, sustainable healthcare.	What other health professionals in the community could help in managing his vision problems?
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How to learn this area of practice

Work-based learning

In general practice you can learn how to manage eye problems within the limited time and resources available. You should also take the opportunity to find out about other agencies, both statutory and voluntary, that provide support for patients with chronic eye disorders in the community.

As a GP specialty trainee, you should try, if possible, to attend some secondary care-based ophthalmology clinics and/or eye emergency units, to learn about both acute and chronic conditions and how to conduct a thorough eye assessment. It would also be useful for you to attend an operating session to gain an understanding of cataract surgery, perhaps by accompanying a patient on his or her journey.

Self-directed learning

You can find an e-Learning module(s) relevant to this topic guide at Learning for Healthcare (e-lfh.org.uk)

Royal National Institute of Blind People (RNIB) has an excellent web site www.rnib.org.uk with GP related resources. There is a helpful *At a Glance* downloadable booklet with DVLA guidelines on the current medical standards for fitness to drive www.dft.gov.uk/dvla/medical/ata glance.aspx and the Royal College of Ophthalmologists has a range of patient information booklets on common eye conditions at www.rcophth.ac.uk

Learning with other healthcare professionals

Optometrists are key members of the primary healthcare team and are increasingly involved in working in partnership with GPs in the management of diabetic patients and in screening for glaucoma and other eye problems. Meeting with them provides an excellent opportunity for discussing the impact of chronic eye problems, and issues of screening and prevention. As a GP trainee you should attend your local optometrist to gain a better understanding of their skills and their contribution to primary care teams.

Structured learning

Specific workshops may be run by local hospitals or RCGP Faculty, for example.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of serious eye disease in a photograph
- Interpretation of visual field charts
- Management of glaucoma.

Clinical Skills Assessment (CSA)

- Elderly man has a rapid deterioration in vision over the past month. Examination expected (Snellen charts supplied).
- Gardener has troublesome allergic conjunctivitis and hay fever despite using over-the-counter eye drops and antihistamine tablets.
- A schoolteacher presents with a painful eye and blurred vision. Examination (photo provided) suggests uveitis

Workplace-based Assessment (WPBA)

- Log entry reflecting on the local optician who frequently requests hospital referrals for patients
- Log entry about a tutorial on the 'acute red eye' and your subsequent management of the next three patients with this symptom
- Consultation Observation Tool (COT) about an elderly woman who has watering eyes.

Gastroenterology

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to gastroenterology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in gastrointestinal health

As a GP, your role is to:

- Diagnose, investigate and manage digestive symptoms using history, examination, monitoring and referral where appropriate. Take into account how digestive symptoms can often be multiple and imprecise
- Communicate effectively and consider the social and psychological impact of digestive problems including the potential difficulties for some patients to discuss digestive symptoms due to embarrassment and / or social stigma
- Intervene urgently when patients present with emergencies related to digestive health
- Coordinate care with other organisations and professionals (including community nurses, pharmacists, drug and alcohol centres, secondary care and voluntary services) leading to effective and appropriate acute and chronic digestive disease management
- Offer advice and support to patients, relatives and carers regarding prevention, prescribing, monitoring and self-management (e.g. lifestyle interventions including diet, weight loss, alcohol and drugs, stress reduction and primary cancer and liver disease prevention).

Emerging issues in gastroenterology

Prevention and early treatment of colorectal cancer are priorities for the Department of Health. A national programme of screening for colorectal cancer is in place. Primary care has an important role regarding cancer risks and referrals, even though recruitment of patients and follow-up for screening are centrally co-ordinated.

GPs should be aware of the increasing incidence of liver morbidity and mortality and the role of primary care in preventing liver disease, as well as new treatment approaches for patients with hepatitis and non-alcoholic fatty liver disease.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

Many conditions such as liver disease are often asymptomatic in their early stages. Symptoms and signs include:

- Abdominal masses and swellings including ascites and organ enlargements such as splenomegaly and hepatomegaly
- Abdominal pain including the differential diagnoses from non-gastrointestinal causes (e.g. gynaecological or urological)
- Bloating
- Bowel issues including constipation, diarrhoea, changes in habit, tenesmus and faecal incontinence
- Chest pain
- Cough
- Disturbance of smell and taste
- Dyspepsia, heartburn
- Dysphagia
- Hiccups
- Inflammation (e.g. eyes, joint)
- Jaundice
- Mouth ulceration, erythroplakia, leukoplakia, salivary problems
- Nausea and vomiting including non-gastrointestinal causes
- Pruritus
- Rectal bleeding including melaena
- Regurgitation
- Vomiting including haematemesis
- Unexplained weight loss and anorexia
- Weight gain including obesity.

Common and important conditions

- Dyspepsia, gastro-oesophageal reflux disease (GORD), and Irritable Bowel disease (IBS) are common conditions, affecting a significant proportion of the population
- Chronic abdominal conditions: inflammatory bowel disease, diverticular disease, coeliac disease and irritable bowel syndrome
- Acute abdominal conditions: appendicitis, acute obstruction and perforation, diverticulitis, Meckel's diverticulum, ischaemia, volvulus, intussusception, gastric and duodenal ulcer, pancreatitis, cholecystitis, biliary colic, empyema and renal colic
- Medication effects: analgesics (codeine, NSAIDs, paracetamol), antibiotics (nausea, risk of c. difficile), proton pump inhibitors (potential masking of symptoms)
- Post-operative complications
- Hernias: inguinal, femoral, diaphragmatic, hiatus, incisional
- Functional disorders: non-ulcer dyspepsia, irritable bowel syndrome, abdominal pain in children.

Upper GI conditions

- Gastrointestinal haemorrhage including oesophageal varices, Mallory-Weiss syndrome, telangiectasia, angiodysplasia, Peutz-Jeghers syndrome
- Gastro-oesophageal reflux disease, non-ulcer dyspepsia, peptic ulcer disease, H. pylori, hiatus hernia
- Oesophageal conditions including achalasia, malignancy, benign stricture, Barrett's oesophagus, globus.

Lower GI conditions

- Constipation: primary and secondary to other systemic diseases such as hypothyroidism, drug-induced, hypercalcaemia
- Diarrhoea
- Gastrointestinal infection including:
 - toxins such as C. difficile and E coli;
 - bacterial causes such as salmonella, campylobacter, amoebic dysentery;
 - viral causes such as rotavirus, norovirus; and
 - parasitic causes such as Giardia lamblia(Note Sexually Transmitted Infections can also cause symptoms.)
- Gastrointestinal malignancies including oesophageal, gastric, pancreatic, colorectal, carcinoid, lymphoma
- Inflammatory bowel disease such as Crohn's disease, ulcerative colitis
- Malabsorption including coeliac disease, lactose intolerance, secondary to pancreatic insufficiency such as chronic pancreatitis, cystic fibrosis, bacterial overgrowth
- Rectal problems including anal fissure, haemorrhoids, perianal haematoma, ischio-rectal abscesses, fistulae, prolapse, polyps, malignancy.

Liver, gallbladder and pancreatic disease

- Abnormal liver function tests: assessment, investigation and consideration of underlying reasons such as:
 - drug-induced: alcohol, medications (paracetamol, antibiotics), chemicals;
 - infection: viral hepatitis, leptospirosis, hydatid disease;
 - malignancy: primary and metastatic;
 - cirrhosis (e.g. from alcohol, fatty liver/ non-alcoholic fatty liver disease); and
 - autoimmune disease: primary biliary cirrhosis, chronic active hepatitis, α -1 antitrypsin deficiency, Wilson's disease, haemolysis
- Secondary effects of liver diseases such as ascites, portal hypertension, hepatic failure
- Gallbladder disease: gallstones, cholecystitis, cholangitis, biliary colic, empyema, malignancy
- Pancreatic disease: acute pancreatitis, chronic pancreatitis, malabsorption, malignancy including islet cell tumours.

Nutrition

- Dietary management of disease, inadequate or excessive intake
- Impact of diet on health (e.g. risk of cancer from high red meat intake) and dietary approaches to healthy living and prevention of disease
- Disorders of weight: obesity and weight loss including non-nutritional causes such as cancer, thyroid disease and other endocrine conditions
- Nutritional problems: vitamin and mineral deficiencies or excess, supplementary nutrition such as dietary, PEG and parenteral feeding
- Complications and management of stomas.

Examinations and procedures

The sensitive nature of GI symptoms and some GI examinations – importance of putting the patient at ease and providing an environment where abdominal and rectal examinations are performed with dignity and, where appropriate, under chaperoned conditions.

Investigations

- Stool tests including culture results and faecal calprotectin
- Tests of liver function, including interpretation of immunological results and markers of disease including cirrhosis and malignancy
- Endoscopy, ultrasound and other scans (e.g. transient elastography), interpretation of relevant tests such as those for *Helicobacter pylori* infection, coeliac disease
- Secondary care interventions such as laparoscopic surgery, ERCP, radiological investigations (including contrast and CT scans)
- Screening programmes for colorectal cancer such as stool tests (e.g. occult blood / fecal immunochemical test), endoscopy and the evidence base.

Service issues

- High prevalence of GI symptoms in the community and the implications for primary care

- Importance of assessing major risk factors and encouraging early lifestyle interventions to reduce the risk of liver disease
- Availability and appropriate use of direct-access endoscopy and imaging for primary care practitioners
- Community-based services in areas such as drug and alcohol rehabilitation (both of which are implicated in gastrointestinal and liver disease)
- Increasing demand for weight loss surgery, and its potential long term effects
- Public health implications of the national bowel cancer screening programme and the role of primary care in provision and in dealing with symptoms amongst screening invitees.

Additional important content

- Appropriate tailoring of treatment to cater for the patient's GI function and preferences.
- Side effects of common medicines including analgesics, antibiotics and proton pump inhibitors
- Drug and alcohol misuse: range of associated gastrointestinal and liver problems, complex issues, ways these impact on digestive disorders and the management problems they are associated with (see also RCGP Topic Guide *Alcohol and Substance Misuse*)
- Impact of social and cultural diversity, and the important role of health beliefs relating to diet, nutrition and the presentation of gastrointestinal disorders. Ensure that the practice is not biased against recognising these.

Case discussion

Beverley is a 62-year-old librarian with a history of osteoarthritis in her knees. She has not been eating or sleeping well, and presents with intermittent constipation, bloating, epigastric discomfort, tiredness and 5kg weight loss in the last 6 months.

She presented last year with some rectal bleeding which was attributed to haemorrhoids by another GP. It settled with conservative treatment. She takes a non-steroidal anti-inflammatory drug (NSAID) for her arthritis and has a vegetarian diet.

Her marriage is under strain since her husband lost his job and increased his alcohol consumption. She is stressed at work due to a difficult new supervisor and she would like to retire but cannot due to their financial situation.

As part of the screening programme, she has been invited to undertake a faecal occult blood test (FOBT); the first was negative 2 years ago and she declined doing another. You do not find anything on abdominal or rectal examination and you request blood tests which show mild anaemia and low Vitamin D.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing

reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How does Beverley's presentation make me feel and why? How would I take account of this in my management of the situation? How might my practice be different if I had past experience of a close relative or friend with a similar presentation?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How would I deal with my concerns about the husband? What ethical principles do I know that might help me with this case? How might my approach be different if the patient was a different sex, had a different culture or religion?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How can I acknowledge the wide range of psychosocial issues in the history? What techniques would I use to work flexibly and efficiently within the allotted time? How might I explain my examination findings and the investigations to the patient?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What are the differential diagnoses? What investigations might I request? How do I manage the risk of a possible serious illness if the test results were normal? How sensitive and specific are the bowel screening programmes?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What is the significance of a normal abdominal and rectal examination? Do I feel reassured by this? What other elements of the history and examination would I wish to explore in this case?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What is my strategy for investigating this combination of symptoms and factual information (e.g. weight loss, anaemia, weakness/fatigue, psychological issues)? How much should the patient's priorities influence this? How could the consultation encourage a shared decision-making process?
Clinical management	What are my next steps?

<p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>When should I refer or investigate with a colonoscopy?</p> <p>What advice would you give regarding her medications?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>How will I address Beverley's current concerns while being diligent in investigating her for serious illness?</p> <p>How can I involve Beverley in thinking about planning the different strands of her care?</p> <p>What are the possible supportive organisations and potential referral routes in this case?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>What are the referral guidelines for 2 weeks suspected cancer referrals? What information should be included in any referral letter?</p> <p>Who else in the team might be appropriate to involve in thinking more about Beverley's current concerns?</p> <p>How can colleagues be effectively engaged to ensure good patient care?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What can be identified as areas of personal educational need?</p> <p>What sources of information can I identify to ensure I am up to date with the investigation of lower GI symptoms?</p> <p>What areas could be explored further for potential improvement at the practice level?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>How does my practice record and follow up patients who have not attended for the bowel screening programme?</p> <p>What can my practice do to improve the uptake of screening programmes?</p> <p>What's the most appropriate way to record the multiple aspects of this patient's presenting complaint?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How could Beverley's wider concerns influence her presentation?</p> <p>What other aspects of her social and cultural background would I like to enquire about?</p> <p>How could you support Beverley with self-management?</p>

<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How do people respond to invitations for FOBT screening? What influences this?</p> <p>What negative influences or barriers might exist in the community that could exacerbate problems for Beverley and her family?</p> <p>What community services might be available to help Beverley and her family?</p>
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How to learn this area of practice

Work-based learning

There is a high prevalence of gastrointestinal symptoms in the community and one of the fascinating challenges is to interpret these symptoms and identify those patients with problems which warrant further and/or urgent investigation. As a GP trainee it may be possible for you to spend time in community-based endoscopy facilities – these are sometimes led by primary care doctors with an interest in gastrointestinal disease.

You should ideally spend time in outpatient clinics, in both general and specialised areas – for example, hepatitis management, liver disorders, endoscopy clinics etc. There is a very broad spectrum of activity in which you could potentially get involved and the opportunities will depend to some extent on what is available locally. You should also take the opportunity to discuss screening programmes with patients in eligible age groups and check on their understanding of the screening process and how it relates to symptom-based diagnosis.

Self-directed learning

You will find many case-based discussions within GP speciality training programmes on gastrointestinal disorders. These cases are often challenging because patients with gastrointestinal diseases often follow unpredictable diagnostic journeys.

Learning with other healthcare professionals

Trainees should take the opportunity of discussing gastrointestinal disorders with practice nurses and nurses in the hospital environment. Some practices have community nurses dealing specifically with drug and alcohol problems and it would be helpful to spend time discussing gastrointestinal disorders in relation to intravenous drug use and excessive alcohol consumption. It would also be helpful to accompany patients in investigations such as helicobacter breath testing and endoscopic procedures.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Investigation of rectal bleeding in different patient scenarios
- Drug therapies for inflammatory bowel disease
- Interpretation of liver function tests.

Clinical Skills Assessment (CSA)

- Obese man has a cough which is worse overnight and first thing in the morning. Examination expected
- Young woman complains of recurrent abdominal pain and bloating
- Elderly woman asks for an explanation and advice after a hospital outpatient attendance. The consultant's letter (provided) gives a diagnosis of diverticular disease.

Workplace-based Assessment (WPBA)

- Case discussion about a man who continues to have upper abdominal pain following a recent cholecystectomy
- Log entry about a referral for a woman with dysphagia through the urgent cancer pathway
- Quality Improvement Project (QIP) looking at how effective your GP practice is at suggesting suitable interventions to patients who may potentially be at risk of liver disease.

Genomic Medicine

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to genomics in primary care by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in genomic medicine

The term 'Genomic Medicine' is increasingly used in health services. Whilst Genetics focuses on the DNA coding for single functional genes, Genomics is the study of the entirety of an individual's DNA, recognising the role of non-protein-coding DNA and the complex interactions between multiple genes and the environment. Genomic medicine involves using genomic information about an individual as part of their clinical care (e.g. for diagnostic or therapeutic decision-making). The term encompasses both Genetics and Genomics.

As a GP your role is to:

- Take and consider family histories in order to identify families with, or at risk of, genetic conditions (including autosomal and X-linked disorders) and familial clusters of common conditions such as cancer, cardiovascular disease and diabetes
- Identify patients and families who would benefit from being referred to appropriate specialist services
- Manage the day-to-day care of patients with genetic conditions, even if the patient is under specialist care
- Coordinate care across services, including transitions from paediatric to adult services
- Communicate information about genetics and genomics, including discussing results from antenatal and new-born screening programmes
- Understand how genomic information is used within the context of routine clinical practice.

Emerging issues in genomic medicine

- Advances in technology can now make human and pathogen DNA sequencing speedy and affordable. This genomic information may be used in the diagnosis and tailored management of a range of conditions from cancer to tuberculosis, and in tailored prescribing decisions. The term 'Precision Medicine' describes the use of genomic information alongside other individual and environmental factors to refine disease prediction, prevention and treatment.
- Information about genetic susceptibility to common complex conditions (conditions with a multi-factorial inheritance pattern, such as ischaemic heart disease and cancer) is likely to

offer additional information about risk, which will aid stratification into risk categories or disease sub-types and inform clinical management.

- Such clinical advances will have implications for service planning, in particular: how genomic information can contribute to managing common complex conditions, how medical management may be personalised through the stratified use of medicines (pharmacogenomics), how resources should be allocated, and the ethics of obtaining, storing, sharing and using genomic information.
- As access to genomic testing increases—either through research programmes, as part of clinical care, or by direct-to-consumer testing from commercial companies—patients and their relatives will turn to their GP for discussion and advice, and GPs must be aware of the implications of this.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition, including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring, and end-of-life care
- Patient information and education including self-care
- Prognosis

Common and important conditions

Variations in the human genome may have no effect, predispose to common complex diseases, or result in genetic conditions. Many of these conditions (e.g. cystic fibrosis, Huntington's Disease) are individually rare, but as a group share common principles in terms of diagnosis, management, and supporting patients and their families. As a GP you should understand the following:

- Autosomal dominant conditions (e.g. familial hypercholesterolaemia, polycystic kidney disease, Huntington's Disease, thrombophilias)
- Chromosomal disorders (e.g. Down syndrome, trisomy 18, Turner syndrome, Klinefelter syndrome)
- Autosomal recessive conditions (e.g. cystic fibrosis, hereditary haemochromatosis, haemoglobinopathies)
- X-linked disorders (e.g. Fragile X Syndrome (see also RCGP Topic Guide *Neurodevelopmental disorders, intellectual and social disabilities*), Duchenne and Becker Muscular Dystrophy, haemophilia).

Common complex diseases follow a multi-factorial inheritance pattern e.g. ischaemic heart disease, hypertension, diabetes, cancer, obesity. A proportion of patients with a common complex disease demonstrate familial clustering of the condition or have an autosomal dominant condition that confers high risk e.g. *BRCA1* pathogenic variant in breast cancer, Lynch syndrome or familial hypercholesterolaemia in Ischaemic Heart Disease.

Symptoms, signs and modes of presentation

Many variations in the genome are asymptomatic. In patients who have, or are at risk of developing, a genetic condition, consider the following:

- Clinical suggestion of inherited disease (e.g. multiple family members affected at a younger age)
- Genetic 'red flags' (e.g. recurrent miscarriage, developmental delay in conjunction with other morbidities)
- Predisposition to common diseases (such as coronary artery disease or cancer)
- Symptoms and signs of specific conditions (see 'Common and important conditions' above)
- Symptom complexes and multisystem involvement
- Variability of symptoms and signs between family members for some genetic conditions, particularly some autosomal dominant conditions (such as neurofibromatosis type 1) as a result of variation in penetrance and expression.

Assessing genetic risk

- How to take a family history (relevant questions, interpretation, how to draw a pedigree)
- Basic inheritance patterns (autosomal dominant and recessive, X-linked, mitochondrial, multifactorial)
- Principles of assessing genetic risk, including:
 - principles of risk estimates for family members of patients with single gene disorders;
 - principles of recurrence risks for simple chromosome anomalies (e.g. trisomies);
 - information from susceptibility variants in common complex conditions (e.g. as used in direct-to-consumer testing);
 - conversations around risk in the context of antenatal screening; and
 - online risk assessment tools, as they become available
- Other factors contributing to genetic risk (e.g. ethnicity, effects of consanguineous marriage).

Investigations

- Genetic and genomic tests (diagnostic, predictive, carrier testing) and their limitations
- Diagnostic tests in primary care (e.g. cholesterol, ultrasound for polycystic kidney disease, testing for hereditary haemochromatosis)
- Carrier testing for families with autosomal recessive conditions such as sickle cell, thalassaemia or cystic fibrosis
- Antenatal and new-born screening programmes (e.g. Down syndrome, cystic fibrosis, sickle cell and thalassaemia).

Service issues

- Systems to follow up patients who have, or are at risk of having, a genetic condition and have chosen to undergo regular surveillance (e.g. imaging for breast cancer and adult polycystic kidney disease or endoscopy for colon cancer)
- Coordination of care with other professionals
- Information and supporting resources:
 - Eligibility and referral pathways for genetic and genomic testing
 - Local and national guidelines (e.g. for a family history of certain cancers)
 - Services and support available for those with an inherited condition
- Organisation of genetics and genomics medicine services.

Additional important content

- Genomic nomenclature (e.g. what is meant by non-coding DNA, susceptibility variant, pathogenic variant and variant of unknown significance (VUS))
- Difficulties in determining the exact genomic cause of a condition (e.g. a learning disability)
- Heterogeneity in genetic diseases
- Skills in communicating genetic and genomic information
- Skills and techniques for non-directive, non-judgemental discussion about genetic conditions, taking into account an individual's ethnic, cultural and religious context
- Spectrum of risk-reducing measures, from lifestyle modification to targeted treatments for certain conditions (e.g. mastectomy and/or oophorectomy for BRCA1/2 mutation carriers, colectomy for adenomatous polyposis coli (APC) mutation carriers, statin use for familial hypercholesterolaemia, venesection for haemochromatosis, losartan for patients with Marfan syndrome)
- Reproductive options available to those with a known genetic condition (including: having no children, adoption, gamete donation, prenatal diagnosis, neonatal screening or testing)
- Emotional, psychological and social impact of a genetic diagnosis on a patient and his/her family
- Clinical and ethical implications for family members of an affected individual, depending on the mode of inheritance of a condition (autosomal dominant, recessive and X-linked single-gene inheritance; de novo and inherited chromosomal anomalies; mitochondrial inheritance and somatic mutation)
- Ethical issues surrounding:
 - Confidentiality and non-disclosure of genetic information within families (particularly when information received from or about one individual can be used in a predictive manner for another family member in the same practice)
 - Genetic testing (e.g. testing in children, pre-symptomatic testing)
 - The 'right not to know'
 - The use of information (e.g. for insurance or employment issues)
- Pharmacogenomics: the role of genomic information in prescribing.

Case discussion

Emily, a healthy 37-year-old woman, presents to you with concerns about developing cancer because her mother was diagnosed with breast cancer at the age of 38 and died at the age of 40. Emily's maternal grandmother had also died from cancer in her late 40s, and her cousin, Lisa, who is 42 years old, has recently been diagnosed with ovarian cancer.

You refer Emily to the local clinical genetics service where Emily sees a genetic counsellor who explains that the family pattern could be consistent with one of the family cancer syndromes. The genetic counsellor explained that it would be helpful to find out more information from her cousin Lisa. On further discussion with her family Emily finds out that Lisa had had a genetic test at the time of her ovarian cancer diagnosis, which showed a *BRCA 1* pathogenic variant.

Emily sees the genetics service again to discuss the possibility of being tested to see if she had also inherited the pathogenic variant. She is considering IVF with her partner Susie and wants to know if the genetic testing may be helpful in informing decisions in this regard.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do my own views influence the way I communicate information about genetic and genomic tests and results, in particular those that may impact on the wider family? What are the limits of my competence in this case?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What potential ethical dilemmas could such a case present, and how would I address them? What are my thoughts and feelings about private companies offering genetic tests for the general public?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How can I communicate the risks of common patterns of genetic inheritance in simple language? What do I need to consider when communicating information relating to a genetic disorder? What are the implications of a genetic diagnosis in one individual for the management of other family members who may ask for a consultation?

Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What tools are available to GPs for recognising and stratifying patients who may have an inherited predisposition to developing cancers? How can I recognise individuals or families at the greatest risk of having genetic conditions? What clinical information does my local specialist genetics service require prior to referral?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	Are there any clinical examinations I would wish to perform in this case? Would the findings affect my decision to refer (and to whom)?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What are the best ways of taking, recording and interpreting a genetic family history? When am I likely to refer patients to secondary care?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What guidelines exist to guide my management of people with genetic conditions? How do I access them? Do I know when and where to seek advice on genetic and genomic issues?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	What roles could the GP play in managing complexity in this case? What other sources of advice and support are available to GPs? What role will pharmacogenomics play in current and future prescribing practice? If Emily is found not to have inherited the BRCA1 gene, does this mean she will not develop breast or ovarian cancer?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	How can GPs work with local genetics departments to facilitate a seamless two-way transfer of information? How can the practice work as a team to ensure that patients with an identified predisposition to cancer or other genetic conditions are not lost to follow-up?

<p>Maintaining performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, participating in commissioning*, quality improvement and research activity.</p>	<p>How can I ensure that information for my patients about the availability of genetic or genomic tests and targeted management is up to date?</p> <p>How do I keep myself updated about new developments in genetics and genomics?</p> <p>Where can I access quick and reliable information about any query regarding a genetic disorder or genomic tests?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What codes within my electronic medical record system can I use to record a family history of cancers or any other genetic disorder?</p> <p>What systems are in place to record that someone has had a genomic test?</p> <p>What systems are in place to follow up patients who have, or are at risk of, a genetic disorder and have chosen to undergo regular surveillance?</p>
<p>Practising holistically and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How might a patient's cultural and religious background, and beliefs concerning genetics/genomics and inheritance, impact on the consultation?</p> <p>What range of feelings might a person have after finding out they have, or have not, inherited a predisposition to a condition?</p> <p>What population screening programmes should Emily continue to participate in?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How would the views of the local community towards genetics, genomics and screening impact on the ways in which the family are likely to take up services?</p> <p>How might the makeup of the local population affect the prevalence of genetic conditions and attitudes towards genetic disease?</p> <p>Where are my local genetic or genomic departments and are there any agreed local protocols for referrals?</p>

How to learn this area of practice

Work-based learning

Many skills required to manage families with genetic conditions are part of the core skills of a GP. Primary care is a good setting for you to learn about genomic medicine because of the family-based focus and opportunities for staged counselling. Learning opportunities during consultations include: how to recognise conditions with a genetic component; how to appropriately manage genetic implications for the individual and family, particularly where there are ethical, social and legal issues; and when and how to refer patients to specialist services. As many common conditions seen in general practice—including cancer, diabetes and heart disease—are multifactorial with a genetic component, managing them can also help develop awareness of how genomics affects disease.

GP trainees with a particular interest in genomic medicine may also wish to take the opportunity to learn from consultant geneticists and genetic counsellors working in regional specialist genetics services. This should include developing your understanding of the genetic counselling process, diagnosis and management of genetic conditions, and reproductive options including prenatal diagnosis for at-risk couples.

Self directed learning

The Health Education England (HEE) Genomics Education Programme website has a number of resources to support the integration of genomics into clinical practice, including information about taking and drawing a family history, core concepts in genomics, genetic conditions, and genomic terminology. www.genomicseducation.hee.nhs.uk

The British Society for Genetic Medicine website contains links to Regional Genetics Centres (RCGs), which often have information on referral pathways and criteria. <https://www.bsgm.org.uk/>

You can find an e-Learning module(s) relevant to this Topic Guide at e-Learning for Healthcare (e-lfh.org.uk)

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Interpretation of a genogram
- Recognising the presentation of common genetic conditions in primary care
- Consent, capacity and confidentiality of genetic testing.

Clinical Skills Assessment (CSA)

- Woman with one affected sibling requests genetic screening for breast cancer
- Woman attends for pre-conceptual advice because her nephew has Duchenne muscular dystrophy
- Neurology letter (provided): 'symptoms suggest cerebellar ataxia, with autosomal recessive inheritance'. Patient attends to discuss the implications of her own probable diagnosis for her children.

Workplace-based Assessment (WPBA)

- Audio Consultation Observation Tool (Audio COT) with a parent discussing the chances of passing his thalassemia-associated variant (trait) to his children
- Log entry about communicating with an adult patient who has Down syndrome
- Log entry about a mother who is finding it hard to cope with her child having cystic fibrosis.

Gynaecology and Breast

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to gynaecology and breast health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in gynaecology and breast health

As a GP, your role is to:

- Acknowledge that many gynaecological conditions women experience adversely affect their physical, psychological and social well-being and work with women to manage these impacts
- Understand that some women may find it difficult to discuss intimate health issues, for many reasons. Women may prefer to see a female GP to discuss gynaecological and breast problems
- Endeavour to adopt a 'woman-centred life course' approach, using current contact opportunities occurring over a woman's life (e.g. HPV immunisation, cervical screening, contraceptive consultations, pregnancy, menopause) for health promotion and potential interventions
- Promote health in this area including breast and cervical screening
- Understand that breast cancer is now the commonest cancer in the UK. Many patients are now surviving breast cancer and undergoing long term treatment and surveillance, often living with the mental and physical consequences of treatment. The GP must be alert to the possibility of local or distant recurrence many years after original treatment
- Recognise that ovarian cancer remains a less common cancer with a relatively poor detection rate, often presenting late. Alertness to non-specific symptoms that could be consistent with ovarian cancer is crucial to earlier diagnosis.
- Be aware that men may also experience breast disorders.

Emerging issues in gynaecology and breast health

- GPs need to be aware of the changing landscape in the management of the menopause. In particular, identifying and managing premature ovarian insufficiency and avoiding over-medicalising women dealing with a normal menopause, whilst at the same time, being sensitive to the distress that many women experience and the range of evidence-based treatments and support available for those who require it
- Identification and reporting on Female Genital Mutilation has now become mandatory in primary and secondary care

- There are changes emerging in mammography provision. The age at entry to the screening programme is lowering, and this will have implications for new diagnoses
- Some conditions such as endometriosis and polycystic ovarian syndrome (PCOS) need to be managed as long term conditions, often in primary care.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

Breast

- Breast development and abnormalities of development
- Breast lumps (men and women)
- Breast skin changes
- Gynaecomastia
- Mastalgia
- Nipple discharge.

Pelvic

- Bleeding symptoms:
 - Menstrual bleeding problems such as amenorrhoea, oligomenorrhoea, polymenorrhoea, heavy menstrual bleeding
 - Non-menstrual vaginal bleeding including intermenstrual and post-coital bleeding
 - Postmenopausal bleeding
- Other pelvic symptoms and signs:
 - Continence problems (urinary and faecal)
 - Pelvic and abdominal masses
 - Pelvic and abdominal pain
 - Vaginal discharge and vaginal dryness

- Vaginal swellings and prolapse symptoms
- Vulval pain, lump, irritation, ulceration, pigmentation, leucoplakia and other vulval skin lesions.

Other

- Menopause and peri-menopause physical and psychological symptoms including bleeding disturbances, hot flushes, night sweats, urogenital symptoms
- Non-specific symptoms that could be consistent with ovarian cancer such as abdominal distension, ascites, bloating, early satiety, new onset IBS symptoms in women over 50, urinary symptoms, weight loss
- Pre-menstrual syndrome.

[Urinary symptoms such as dysuria and haematuria are covered in RCGP Topic Guide *Kidney and Urology*. Sexual health symptoms are covered in the *Sexual Health* Topic Guide. Symptoms relating to pregnancy and reproductive health are covered in the *Maternity and Reproductive Health* Topic Guide.]

Common and important conditions

Breast

- Benign breast conditions including eczema, infection (mastitis, breast abscess), lumps (e.g. cysts, fibroadenoma) and mastalgia
- Breastfeeding, including common problems
- Malignant breast conditions including DCIS, invasive ductal and lobular carcinomas, Paget's disease of the nipple and secondary malignancy such as lymphoma, including awareness of treatment (surgery, radiotherapy, hormonal) and its complications
- Surgery for breast reconstruction, breast enlargement and breast reduction.

Pelvic

- Bleeding problems (which may have pelvic or extra-pelvic cause):
 - Amenorrhoea (primary and secondary), oligomenorrhoea, polymenorrhoea, irregular menstrual cycles and anovulatory cycles
 - Intermenstrual bleeding
 - Medication induced bleeding problems (including secondary to hormonal contraceptives)
 - Menstrual problems including heavy menstrual bleeding, dysmenorrhoea (primary and secondary), dysfunctional uterine bleeding
 - Post-coital bleeding
 - Post-menopausal bleeding
- Pelvic pain
- Ovarian:
 - Benign ovarian swellings including ovarian cysts, dermoid
 - Ovarian cancer including adenocarcinoma and teratoma

- Polycystic ovary syndrome: gynaecological aspects and associated metabolic disorders such as insulin resistance and obesity, and symptoms such as acne and hirsutism
- Uterine:
 - Endometrial polyps, hyperplasia and cancer
 - Endometriosis and adenomyosis
 - Fibroids
 - Prolapse including cystocele and rectocele
- Cervical:
 - Cancer, cervical intraepithelial neoplasia (CIN), dysplasia, ectropion and polyps
- Vulvo-vaginal:
 - Female genital mutilation (FGM) (including legal aspects) and cosmetic genital surgery
 - Malignancy including vulval intraepithelial neoplasia (VIN), melanoma
 - Skin disorders such as lichen sclerosus, psoriasis, intertrigo, pigmented lesions, genital warts
 - Vaginal discharge including infectious causes such as candida, bacterial vaginosis and sexually transmitted infections (please refer also to Topic Guide *Sexual Health*)
 - Vulval pain with causes such as atrophic changes, Bartholin's problems, dysesthesia, vulvodynia.
- (Urinary conditions including incontinence are covered in the *Kidney and Urology* topic guide)

Fertility

- Infertility and subfertility – causes and investigations:
 - Male factors including impaired sperm production and delivery (e.g. drug induced, cystic fibrosis)
 - Female factors including ovulatory disorders, tubal disorders, uterine disorders and genetic causes
- Principles of assisted conception with knowledge of associated investigations
- Recurrent miscarriage.

Other

- Premenstrual disorders including premenstrual syndrome and premenstrual dysphoric disorder
- Menopause:
 - Normal and abnormal menopause and peri-menopause including premature ovarian insufficiency
 - Post-menopausal bleeding
 - Systemic symptoms such as skin changes, hot flushes, psychological symptoms
 - Treatment options including hormone replacement therapy (HRT) – systemic and local methods
 - Urogenital aspects including atrophic vaginitis
 - Wider health issues associated with menopause including increased cardiovascular risk and osteoporosis

(Sexually transmitted infection, Pelvic Inflammatory Disease, dyspareunia, pregnancy (including miscarriage and ectopic pregnancy) are covered in the RCGP Topic Guides on *Sexual Health and Maternity and Reproductive Health*. Urinary problems are covered in the Topic Guide *Kidney and Urology*).

Examinations and procedures

- Abdominal assessment for ascites, distension and masses
- Bimanual pelvic examination
- Breast examination
- Cervical cytology sampling
- Obtaining informed consent for breast examination, vaginal examination and speculum examination, including use of chaperones where appropriate
- Speculum examination including appropriate choice of size
- Vaginal and endocervical swabs
- Vulval examination.

Investigations

- Breast imaging (including mammography, MRI and ultrasound)
- Common secondary care gynaecological investigations including colposcopy, hysteroscopy and laparoscopy
- Investigations within primary care such as blood tests (CA125, full blood count, hormone profile) cervical smears, clinician taken vaginal and cervical swabs, patient taken swabs, vaginal pH testing
- Primary care investigation of female subfertility including blood tests and ultrasound
- Semen analysis
- Ultrasound – abdominal and pelvic ultrasound including trans-vaginal scans.

Service issues

- Emotional and organisational support structures and techniques to deal with the psychosocial aspects of women's health (e.g. in relation to menopause, and breast and gynaecological cancer)
- HPV vaccination programme
- Local service provision and pathways for suspected malignancy including one-stop clinics
- Practical and legal aspects around FGM including reporting mechanisms, safeguarding concerns and protecting girls at risk of FGM
- Safeguarding issues that may present through gynaecological concerns.

Other important content

- After-care of women who have had gynaecological or breast surgery and radiotherapy including 'late effects' of treatment and risk of cancer recurrence
- Gynaecological issues in transgender patients. Transgender issues are covered more fully in *Sexual health* and *Equality Diversity and Inclusion Topic Guides*.
- The physiological and hormonal changes of the menstrual cycle
- Genetic mutations related to breast and gynaecological malignancy including BRCA and indications for referral for genetic counselling
- Screening programmes for cervical and breast cancer – including practicalities, benefits, risks, interpretation of results, non-participation. Awareness of controversies around possible screening for ovarian cancer.

Case discussion

Jackie, who is 48 years old and a smoker, comes to see you. She is unemployed and brings her four-year-old granddaughter, Kylie, who she is caring for whilst Kylie's mother is in prison for drug-related offences. Jackie is exhausted, which she puts down to lack of sleep through worry, travel to the prison to visit her daughter and looking after Kylie.

Owing to the chaotic family situation, Jackie has not paid much attention to her own health and has been ignoring some pinkish vaginal discharge. Now, however, she has irregular vaginal bleeding, which is becoming more frequent. She has not had a cervical screening test for over 15 years and on examination you find an irregular, ulcerated area on the cervix. You explain your findings and agree with Jackie that you will refer her under the two-week rule to a gynaecologist.

Jackie is diagnosed with a stage 1b cervical squamous carcinoma. She has a hysterectomy and subsequent chemoradiotherapy. The hospital admission, post-operative recovery period and subsequent daily outpatient visits for radiotherapy make it even more difficult for her to look after Kylie. Jackie is not keen on any further help at home as she fears social services will 'take Kylie away' but she agrees that you could ask the health visitors to see what support they can offer.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do I feel when a patient's neglect of their own health may have contributed to a condition? For example, in this case Jackie is a smoker and has not attended for cervical screening?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What ethical dilemmas does this case present? What tensions do I see between the scientific, political and patient-centred aspects of cervical screening? What safeguarding concerns are raised by this scenario?

<p>Communication and consultation</p> <p>This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.</p>	<p>How effective am I at respecting the views of patients who are reluctant to accept help involving social services and other agencies?</p> <p>How good am I at explaining the risks and benefits of a screening test to my patients? What about explaining the results of abnormal smear tests to a patient?</p> <p>What communication strategies can I employ to 'break bad news' in a situation such as this?</p>
<p>Data gathering and interpretation</p> <p>This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.</p>	<p>What are the risk factors in Jackie's history that might suggest a diagnosis of malignancy?</p> <p>What factors (e.g. patient, doctor, clinical findings, guidelines) would influence which further investigations to perform and how urgently in a woman presenting with vaginal bleeding?</p>
<p>Clinical Examination and Procedural Skills</p> <p>This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.</p>	<p>How confident am I in carrying out a speculum examination and a smear test, and being able to differentiate between a healthy cervix, common minor changes or serious pathologies?</p> <p>What other examinations and procedures could I consider performing in general practice?</p>
<p>Making decisions</p> <p>This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.</p>	<p>If her cervix had been normal, what would have been my next step?</p> <p>How do I make decisions about whether a child is safe?</p>
<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>Do I know the 'red flag' symptoms that require urgent referral under the 'two-week rule' for gynaecological problems?</p> <p>Abnormal cervical cytology and cervical cancer are often related to sexually transmitted HPV – how do I explore the risk of other STIs, including HIV, in this case?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>How can I balance on-going health promotion and advice-giving at a time of serious illness?</p> <p>What steps would I take to understand the impact of this illness on the patient's family?</p>

<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>What are the local arrangements for administering the HPV vaccine to girls?</p> <p>What systems are in place to identify vulnerable families in the practice where I work?</p> <p>Do I have a good awareness of other agencies that might be helpful in this case? In particular, how might we be able to support Jackie as she cares for Kylie?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What is my plan for maintaining and updating my knowledge base in women's health?</p> <p>How do I ensure that my cervical smear taking skills are adequate?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What is the protocol in my practice for calling, recalling and following up patients who attend and DNA for smears?</p> <p>How does the practice record the family relationships? What are the potential safeguarding issues related to record keeping in this family?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>As the GP for more than one generation of a family, how do I balance their health and social care needs?</p> <p>In patients who are diagnosed with cancer, how do I acknowledge their fears and concerns in the consultation?</p> <p>How could we increase cervical smear uptake? What are the barriers to increased uptake?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What relevant social care assistance and support groups are available to patients in my area?</p> <p>How do we deliver primary care services to 'chaotic' and marginalised groups in society?</p> <p>How does the 'inverse care law' apply?</p>

How to learn this area of practice

Work-based learning

The period of time spent training in general practice will help you better understand gynaecology and breast health. It is ideal for delivering training in screening, counselling and continuous care, and to reinforce the idea that good healthcare requires a balanced overview of all factors affecting the patient at any time. There is no substitute for clinical experience supported by a GP trainer and experienced members of the primary healthcare team. Many practices will have a lead for this area whom may offer particular clinics such as 'Well Woman' which will give concentrated exposure to this field.

Many GP specialty training programmes include placements in gynaecology and/or breast care. These placements give opportunities to become proficient in gynaecological and breast history taking and examination skills, as well as management of common gynaecological problems. Additionally, they may give opportunities to observe more specialised gynaecological investigations and treatments, including surgical procedures, which will facilitate you discussing these with patients in the future.

Sexual health and reproductive health clinics are also excellent environments to gain a better understanding of gynaecological health concerns and to learn techniques for examination including passing a speculum and interpreting findings.

GP specialty trainees should take the opportunity to attend outpatient clinics in specialties directly relevant to this area of health, e.g. general and emergency gynaecology clinics, one-stop clinics for suspected cancer and breast clinics. During these placements you should refer to this curriculum statement, and the relevant cross-references, to guide you and help consolidate your specific knowledge and skills in the area of women's health in primary care.

Self-directed learning

There are many online and clinical courses for GP specialty trainees on breast and gynaecological health issues to supplement their local programmes and to ensure that those GP trainees who have not passed through a hospital-based placement in breast surgery or gynaecology are made aware of current management of these problems. You can find e-Learning module(s) relevant to this topic guide at e-Learning for healthcare www.e-lfh.org.uk and at RCGP Learning www.elearning.rcgp.org.uk

The RCGP Women's Health Library is a collection of educational resources and guidelines relevant to GPs and developed in collaboration with the Royal College of Obstetricians and Gynaecologists (RCOG) and Faculty of Sexual and Reproductive Healthcare (FSRH) www.elearning.rcgp.org.uk/course/index.php?categoryid=57. In addition, the RCGP have a Menstrual Wellbeing toolkit <https://www.rcgp.org.uk/clinical-and-research/resources/toolkits/menstrual-wellbeing-toolkit.aspx>

The (RCOG) offers a diploma examination in this field (DRCOG) particularly aimed at GPs. Details are on their website <https://www.rcog.org.uk/en/careers-training/drcog/>

Other useful online organisations providing resources in this area for professionals and patients include The Primary Care Women's Health Forum (www.pcwhf.co.uk), The British Menopause Society (www.thebms.org.uk) and Menopause Matters (www.menopausematters.co.uk)

Learning with other healthcare professionals

Gynaecological and breast health problems, by their nature, are often exemplars of teamwork across agencies. Joint sessions with nursing colleagues provide you with multidisciplinary opportunities for learning about the wider aspects of these aspects of healthcare provision, in both primary and secondary care. You should also find it fruitful to consider and discuss the roles of the various individuals who represent the many professional and non-professional groups involved in these areas of healthcare.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Use and interpretation of CA125
- Diagnosis of the menopause
- Diagnosis of endometriosis.

Clinical Skills Assessment (CSA)

- Woman has a breast lump (silicon model for the examination)
- Woman from Somalia with a history of female genital mutilation has concerns about family pressure to submit her daughter to the same
- Phone call: Young woman wants to discuss her cervical smear result which shows borderline dyskaryosis (HPV negative).

Workplace-based Assessment (WPBA)

- Observation of a pelvic examination for a woman with unexplained vaginal bleeding
- Consultation Observation Tool (COT) on an 80 year old patient who ends the consultation saying she is bleeding
- Case-based Discussion (CbD) about a private gynaecologist's request that you prescribe high-dose oestrogen preparations when you disagree with the consultant's diagnosis and management plan.
- Statutory Clinical Observation and Procedural Skills (CEPS) assessment of female genital examination

Haematology

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to haematology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of people with haematological disorders

Many consultations in general practice involve haematological investigations. As a GP you should be able to:

- Identify symptoms that are within the range of normal or self-limiting illness and differentiate them from underlying pathology e.g. anaemia
- Know the epidemiology of common disorders and understand how to recognise them
- Make an effective assessment, including conducting more detailed tests and referring appropriately.

Emerging issues in the care of people with haematological disorders

- Chronic haematological disorders are more prevalent due to the ageing population. The need to differentiate abnormalities due to the ageing process, or secondary to other co-morbidities, from blood disorders requiring specific medical intervention
- Evolving new agents for anticoagulation treatment and prophylaxis in primary care. Their appropriate use as an alternative to warfarin and the assessment of their potential benefit and risk
- Improving outcomes in treatment of haematological malignancies and the increasing use of ambulatory and shared care management plans between secondary care specialist teams and the community.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- > The natural history of the untreated condition including whether acute or chronic
- > The prevalence and incidence across all ages and any changes over time
- > Typical and atypical presentations
- > Recognition of normal variations throughout life
- > Risk factors, including lifestyle, socio-economic and cultural factors
- > Diagnostic features and differential diagnosis
- > Recognition of 'alarm' or 'red flag' features
- > Appropriate and relevant investigations
- > Interpretation of test results
- > Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- > Patient information and education including self-care
- > Prognosis

Symptoms and signs of haematological disorders

- 'B' symptoms of lymphoma
- Bleeding, bruising, petechiae and purpura
- Bone pain or pathological fractures
- DVT or PE
- Fatigue
- Hyperviscosity symptoms (headache, visual loss, acute thrombosis)
- Jaundice secondary to haemolysis
- Lymphadenopathy, splenomegaly and hepatomegaly
- Pallor and anaemia
- Recurrent infection
- Recurrent miscarriage
- Skin manifestations of haematological disease (e.g. mycosis fungoides)
- Systemic manifestations of haematological disease (e.g. sickling crisis)
- Weight loss.

Common and important conditions

- Anaemia and its causes including iron, folate and vitamin B12 deficiency, sideroblastic, haemolytic, chronic disease
- Anticoagulants: indications, initiation, management and reversal/withdrawal including heparin, warfarin, Direct Oral Anticoagulants such as dabigatran, drug interactions and contra-indications
- Clotting disorders including genetic causes such as haemophilia and von Willebrand's disease, infective causes such as meningococcal septicaemia and disseminated intravascular coagulation
- Common abnormalities of blood films and their management (e.g. macrocytosis, microcytosis, spherocytosis, neutrophilia)

- Enlarged lymph nodes of any cause +/- splenomegaly, including infection and malignancy (both primary and secondary); management of a single enlarged lymph node
- Enzyme diseases such as G6PD deficiency
- Gout associated with haematological malignancies and myelodysplasias
- Haematological malignancies such as acute and chronic leukaemias, lymphomas (including Hodgkin's, non-Hodgkin's lymphomas, gut and skin lymphomas), multiple myeloma
- Haemochromatosis
- Haemoglobinopathies such as thalassaemia, sickle cell disease
- Haemolytic diseases including management of rhesus negative women in pregnancy, autoimmune and transfusion haemolysis
- Lymphatic disorders such as primary lymphoedema
- Myelodysplasia and aplastic anaemia
- Myeloproliferative disorders such as polycythaemia rubra vera, thrombocytosis
- Neutropenia: primary and secondary including chemotherapy and drug-induced
- Pancytopenia and its causes
- Polycythaemia: primary and secondary such as to hypoxia, malignancy
- Purpura: recognition and causes such as drug-induced, Henoch-Schönlein
- Splenectomy including functional asplenia
- Thrombocytosis and thrombocytopaenia, including causes and associations, indications for referral.

Examinations and procedures

- Appropriately obtaining blood samples and requesting clearly selected and targeted tests with informed consent
- Use of near patient testing for anticoagulation.

Investigations

- Blood grouping such as ABO and rhesus status including antenatal blood disorders; safe transfusion practice
- Normal haematological parameters and interpretation of laboratory investigations such as full blood count, haematinics, monitoring of anticoagulants and investigation of coagulation disorders including thrombophilia and excessive bleeding, protein electrophoreses, immunoglobulins
- Other relevant primary care investigations (e.g. x-rays, paraprotein urine testing in myeloma)
- Relevant secondary care investigations such as bone marrow, bone scans
- Antenatal screening for inherited haematological disorders (e.g. thalassaemia, sickle cell).

Service issues

- Common investigations/treatment pathways in secondary care and referral criteria for common conditions
- Cancer care reviews and follow-up, including safe prescribing, management of multi-morbidity, and recognising signs of disease progression
- Indications for urgent (or semi-urgent) referral to secondary care
- Pathology in other systems may lead to haematological manifestations

- Certain services are highly specialised and regionally based such as bone marrow transplant.

Additional important content

- Conditions with higher prevalence in certain ethnic groups (e.g. benign ethnic neutropenia, sickle cell anaemia)
- Ethical issues related to blood transfusion
- Psychosocial impact of living with a haematological condition
- Major side effects of chemotherapy.

Case discussion

Mr Chan a 79-year-old man presents with joint pains suggestive of OA, low mood and tiredness. The symptoms have been present for the preceding 6 months and appear stable. He complains of a poor sleep pattern and loss of appetite which appear to be depressive in nature. He lives at home with his wife and is otherwise in good health and active.

As part of routine investigations, his FBC has been reported as showing a raised lymphocyte count and flow cytometry suggestive of B Cell Chronic Lymphocytic Leukaemia.

Referral to haematology was advised and a diagnosis of Stage 0 CLL was confirmed, and no active intervention recommended other than regular monitoring of his white cell count.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are the personal challenges I face in caring for chronic disease in the elderly? How do my personal beliefs and attitudes influence the care that I provide? How do I balance my desire to give long term personalised care with the risk of fatigue and burnout?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What factors influence the decision for active intervention in asymptomatic illness? How can I respect the autonomy of my patient in a scenario where decisions are based on technical clinical criteria? How do I ensure that timely access to care is equal to all?

<p>Communication and consultation</p> <p>This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.</p>	<p>What are the challenges explaining a diagnosis of disease in the absence of directly attributable symptoms?</p> <p>How do I respond to the inherent uncertainties in future management?</p> <p>How do I explore other factors which might influence her health beliefs about active Rx?</p>
<p>Data gathering and interpretation</p> <p>This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.</p>	<p>How will I monitor this patient in the medium and long term?</p> <p>What information would require a change in current management?</p> <p>How do I balance the need for regular monitoring against over-investigation?</p>
<p>Clinical Examination and Procedural Skills</p> <p>This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.</p>	<p>What might I have found on examination in this case?</p> <p>Without the blood test results, what might have been the differential diagnosis in this case?</p> <p>What clinical signs are the most sensitive and specific for haematological malignancy in primary care?</p>
<p>Making decisions</p> <p>This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.</p>	<p>How can I incorporate shared decision-making in my management?</p> <p>What options are available to me if I am unsure what to do?</p>
<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>What clinical symptoms and signs would be considered 'red flags'?</p> <p>What treatment options might be considered?</p> <p>How do I assess the need or urgency of referral?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>How does the diagnosis of CLL affect the assessment, diagnosis, and clinical management of other potential co-morbidities?</p> <p>What are the likely psychological and social consequences of the diagnosis of a long term but as yet 'untreated' disease?</p> <p>What are the most relevant uncertainties and risks?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>How will I coordinate ongoing care with the specialist multi-disciplinary teams?</p> <p>What factors might enhance or hinder the continuity of care?</p> <p>What are the best ways of communicating with very specialised teams such as haemato-oncology?</p>

<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, participating in commissioning*, quality improvement and research activity.</p>	<p>What do I know about the management of haematological malignancies?</p> <p>What are my personal educational needs that this scenario identifies?</p> <p>In what ways can I assess and improve the care of patients with indolent disease?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What shared care arrangements would I expect to be in place for this patient?</p> <p>How do I arrange ongoing monitoring at appropriate intervals?</p> <p>What support does the practice need to provide?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How do I differentiate and balance the physical and psychosocial symptoms of patients with chronic stable illness?</p> <p>How do I balance health anxiety with actual health risk?</p> <p>What other aspects of health promotion need to be addressed?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How common is this type of illness in my practice population?</p> <p>What support needs to be identified in my locality?</p> <p>What voluntary organisation might be able to offer support and resources?</p>

How to learn this area of practice

Work-based learning

Patients will present with various symptoms, at varying stages in the natural history of their illness. Discussion with a trainer will aid specialty trainees in developing strategies to help in problem-solving. Supervised practice will also give trainees confidence.

In particular, the GP specialty trainee should be able to gain experience in the management of abnormal haematological findings as they present (incidental, acute and chronic), including emergencies. General practice is also the best place to learn about holistic chronic disease management (e.g. anticoagulation, anaemias, indolent malignancies, sickle cell disease, haemophilia.).

Most GP training programmes have placements of varying lengths in general medicine, and some placements specifically in haematology. The acute setting is the place for you to learn about the immediate management of life-threatening presentations. As a specialty trainee you will also learn about the interpretation of haematology lab results, and how to differentiate significant abnormal findings from those of a coincidental nature, and appropriate secondary care investigations such as bone marrow aspirate and trephine. Outpatient or clinic settings are ideal places for seeing concentrated groups of patients with haematological problems.

Your GP specialty training programme should offer you the opportunity to attend haematology clinics when working in other hospital posts and you should also consider attending specialist clinics during your general practice-based placements.

Self-directed learning

There is a growing body of e-Learning to help you consolidate and build on the knowledge you have gained in the workplace. You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (e-lfh.org.uk)

Learning with other healthcare professionals

Chronic disease management in primary care is a multidisciplinary activity. As a specialty trainee it is important for you to gain an understanding of the follow-up of patients with haematological disorders even though the clinical lead is taken by secondary care or a community clinical nurse specialist. It is also important to understand the role of medical scientists and when it is appropriate to access their expertise in evaluating laboratory results.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Appropriate use of different anticoagulant therapies
- Interpretation of haematologic results
- Differential diagnosis of lymphadenopathy.

Clinical Skills Assessment (CSA)

- Woman was investigated for tiredness and lethargy and has macrocytic anaemia and hypercholesterolaemia
- Child has developed purpuric rash on her legs (photo supplied) and three days of mild abdominal and joint pains
- Teenager has had a persistent and worsening sore throat for five days and now has abdominal pain and lymphadenopathy.

Workplace-based Assessment (WPBA)

- Case Discussion on the management of a patient with persistent thrombocytopenia who is otherwise well
- Audit of the practice data on the appropriateness and value of requests for 'routine' haematology laboratory tests
- Learning log about the care of an elderly man who lives alone and has just been diagnosed with chronic lymphocytic leukaemia.
- Clinical Examination and Procedural Skill (CEPS) based on a patient with widespread lymphadenopathy

Infectious Disease and Travel Health

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to infectious disease and travel health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in travel health and the care of people with infectious disease

As a GP your role is to:

- Diagnose and manage diseases of infectious origin commonly seen in UK general practice and in the prospective or returning traveller
- Recognise and appropriately refer rare but serious infectious diseases
- Take a thorough social history including country of birth and travel history, and know how this may affect differential diagnoses
- Encourage self-management of benign self-limiting illnesses
- Identify, assess, manage and communicate major risks, including risks associated with common or serious infectious diseases, travel, therapies, and immunisation
- Know how to access specialist input for people with acute or chronic infectious diseases
- Know where to find appropriate travel health information
- Recognise and manage medical emergencies (including life-threatening conditions such as sepsis) in patients with acute or chronic infectious diseases, including returning travellers.

Emerging issues in travel health and infectious disease

In an increasingly globalised world, infectious diseases are not restricted to geographical borders. As a GP you should therefore understand the local and global epidemiology of major infectious agents and their disease associations. Antimicrobial resistance (AMR) is an urgent problem of global and local importance; as a GP you can help tackle this through appropriate prescribing of antibiotics and patient education, amongst other measures. Additionally, the increasing mobility of people, including displaced populations such as refugees, means that GPs will need to understand a wider spectrum of infectious diseases and the altered contexts in which they may present. However, you should not make the assumption that illness in a returning traveller is necessarily or solely related to travel.

Service provision for travel health and infectious diseases can vary greatly, depending on where you work. As a GP you may not be contractually obliged to provide certain services, or they may be delivered by other team members (e.g. practice nurses). Nonetheless, you should be competent in diagnosing and managing common and important conditions related to travel and infectious disease, while at the same time knowing what services are available within your practice and locality, and

what your statutory responsibilities are in terms of providing care. You should be aware of advances in diagnosing and monitoring infectious disease, such as genome sequencing of pathogens in outbreak detection (e.g. *Salmonella*) or in TB diagnosis.

Patients may be entering the UK or going abroad against their will (e.g. trafficking, forced marriage, FGM) or to participate in criminal activities, and you should be familiar with GMC guidance and the law around these issues.

GPs have a wider leadership and advocacy role that includes promoting better health systems, services, and policies (e.g. effective local and global responses to international health emergencies), antimicrobial stewardship, and addressing health inequalities.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition, including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including prophylaxis, self-care, initial, emergency and continuing care, chronic disease monitoring and end-of-life care
- Patient information and education including self-care
- Prognosis

Symptoms and signs

Infectious diseases may be asymptomatic. Symptoms and signs may include (but are not limited to):

- Cardiac symptoms
- Fatigue and non-specific symptoms
- Fever
- Gastrointestinal symptoms e.g. diarrhoea, vomiting, abdominal pain
- Genitourinary symptoms
- Hepatosplenomegaly
- Joint pains
- Lymphadenopathy
- Neurological symptoms
- Pruritus
- Respiratory symptoms e.g. cough, shortness of breath, haemoptysis
- Skin signs (including pathognomonic rashes)
- Weight loss

Common and important conditions

Many infectious diseases are multi-systemic, therefore many of the conditions listed below will also appear in several other RCGP Topic Guides (e.g. *Children and Young People*, *Neurology*, *Respiratory Health*, *Gastroenterology*, *Musculoskeletal Health*, *Dermatology*, *Urgent and Unscheduled Care*). You should read the relevant section of each Topic Guide for further information.

Common and important conditions include:

- Bone, joint and soft tissue infections (e.g. septic arthritis, osteomyelitis, necrotising fasciitis)
- Cardiovascular infections (e.g. endocarditis, rheumatic fever)
- Common and serious childhood infections (including viral, bacterial, fungal) (see RCGP Topic Guides on *Children and young people* and *Dermatology*)
- Common ENT infections (see RCGP Topic Guide *Ear, Nose, Throat and Mouth Problems*)
- Fever in the returning traveller and its potential causes (e.g. malaria, dengue, typhoid/paratyphoid, chikungunya, viral haemorrhagic fevers)
- Gastrointestinal infections (e.g. amoebiasis, amoebic dysentery, food poisoning (including causative organisms), giardiasis, hydatid disease, Travellers' diarrhoea, typhoid)
- Genitourinary infections including sexually transmitted and urinary tract infections
- Healthcare-associated infections (HCAI) (e.g. MRSA, *Clostridium difficile*)
- Helminth infections (e.g. schistosomiasis, hookworm, strongyloides)
- Hepatitis of infectious origin
- Human Immunodeficiency Virus (HIV)/AIDS including prevention, testing, transmission (including mother-to-child transmission), therapies, prophylaxis, and associated diseases (such as pneumocystis jirovecii (formerly carinii), cryptococcus spp., cytomegalovirus, candida)
- Immune deficiency; infectious disease in the immune-compromised patient
- Malaria (including malarial prophylaxis)
- Multi-systemic infection e.g. bacterial (e.g. staphylococcal, streptococcal), viral (e.g. Epstein Barr Virus), fungal, parasitic (e.g. toxoplasma, Chagas disease),
- Neurological infections (e.g. meningitis, encephalitis)
- Occupational infections and their management (e.g. needle stick infections)
- Ocular infections (e.g. conjunctivitis, ophthalmia neonatorum)
- Pandemics (e.g. pandemic influenza)
- Post-operative infections
- Respiratory disease (e.g. pneumonia, Legionnaires' disease, influenza)
- Sepsis and the deteriorating patient
- Skin infections (e.g. bed bugs, cutaneous larva migrans, exanthemata, flea, louse, ringworm, scabies, threadworm, orf, leishmaniasis)
- Tick borne diseases including Lyme disease
- Trauma including injuries, animal bites and wounds
- Tuberculosis and its different manifestations
- Travel related conditions (e.g. altitude related sickness, DVT, PE, motion sickness, sun/cold exposure, water activities)

- Vaccine preventable communicable diseases including cholera, diphtheria, Haemophilus influenzae B, hepatitis A, hepatitis B, Human Papilloma Virus, influenza, Japanese encephalitis, measles, meningitis ACWY, meningitis B, meningitis C, mumps, pertussis, pneumococcus, poliomyelitis, rabies, rotavirus, rubella, shingles, tetanus, tick-borne encephalitis, tuberculosis, typhoid, yellow fever
- Zoonotic diseases (e.g. leptospirosis, brucellosis).

Examinations and procedures

- Features of common and important infectious diseases through relevant, focused systems examination
- Rashes related to, or pathognomonic of, specific infectious diseases (e.g. meningococcal meningitis, erythema chronicum migrans, erythema multiforme, erythema nodosum, viral exanthemata)
- Assessment of an acutely unwell patient with possible infection (including signs of sepsis).

Investigations

- Use, limitations and interpretation of investigations such as serological testing, swabs, blood films, urine and stool microscopy and culture, near patient testing (e.g. CRP)
- Colonisation versus infection
- Common laboratory tests e.g. haematology (including significance of eosinophilia in travellers or those born outside the UK) and biochemistry (including normal parameters)
- Imaging such as chest X-ray
- Screening in asymptomatic patients (e.g. chlamydia, HIV, TB).

Service issues

- Immunisation including:
 - childhood immunisation schedules;
 - immunisation in pregnancy, travellers, and other important situations e.g. contact tracing;
 - vaccinations available on the NHS; and
 - mandatory vaccinations for travel to certain areas
- Translation services
- Safe working practice in personal, clinical and organisational settings (including principles and practice of infection control)
- Safe and effective evidence-based prescribing including prophylaxis, drug interactions, appropriate use of antimicrobial therapy, and antimicrobial resistance
- Statutory notification of diseases
- Fitness to travel documentation
- Contact tracing and treatment of contacts
- NHS travel health service provision and the role of the independent sector
- Systems of care for people with infectious disease (including primary and secondary care, specialist services, voluntary sector organisations, shared care arrangements, and multidisciplinary teams)
- Local emergency response plans and emergency preparedness

- UK's health protection agencies and other major local, national and international organisations involved in emergency planning for and control of outbreaks of infection
- UK screening and reporting programmes that relate to infection
- Key national policy documents influencing health care provision for patients with infectious diseases.

Additional important content

- Modes of transmission, incubation periods, and periods of communicability of common and important infectious agents
- Diseases likely to affect prospective or returning travellers and those who were born or have lived outside the UK
- Diagnostic overshadowing (i.e. assuming that illness in returning travellers or those born outside the UK are solely related to travel)
- Health advice for travellers (including vaccination and other precautions, use of electronic resources, and signposting to appropriate services)
- Pre- and post-exposure prophylaxis
- Infectious diseases during pregnancy, birth, and breastfeeding, in elderly people, the immunosuppressed, and drug/alcohol users
- Travel health during pregnancy (including specific risks, fitness to fly certification)
- Risk-benefit conversations (e.g. around screening and testing for infectious diseases, immunisation and specific vaccines, travel, and therapies) based on patient's current and past health and individual circumstances
- Use of appropriate language in communicating the status of a deteriorating patient to other services (e.g. ambulance)
- Health of refugees, asylum seekers, people born or lived outside the UK, victims of human trafficking
- Loss of innate immunity in immigrants and its impact on travel prophylaxis
- Psychosocial impact of infectious diseases on individuals and their wider social networks
- Relevant guidelines and legislation (e.g. Civil Aviation Authority, NICE, SIGN, national patient safety initiatives, local antimicrobial guidelines)
- Ethical and legal considerations (e.g. around confidentiality/disclosure, data protection, consent, immunisation, rights of migrants to healthcare, capacity and competence).

Case discussion

Alex, a 20-year-old university student, is planning to travel to South East Asia for two months. She visits you for travel advice as the nurse who runs the travel clinic is absent.

She has no significant past medical history. Her only medication is the combined oral contraceptive pill (COCP) which she uses for contraception and dysmenorrhoea. Alex is concerned about her DVT risk when flying whilst on the COCP but is reluctant to stop it.

You provide Alex with country-specific and general travel advice, such as the risk of infectious diseases, vaccinations needed, malaria prophylaxis, sun exposure and travel insurance.

After six months, you see Alex as an emergency appointment. She returned to the UK three days ago and has been having diarrhoea and vomiting for five days. On further exploration, she also admits to having unprotected sexual intercourse with a fellow traveller over a month ago and is worried about sexually transmitted conditions.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are my beliefs and assumptions about infectious disease and its acquisition? How might they impact on my consultations with Alex? How do I take care of my own health? Are there any significant risks to my health at work, or risks to patients because of my health? How might these be addressed?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What ethical issues should I consider in relation to STI (including HIV) testing? What additional issues might arise if Alex says that she has a partner?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How might I optimise consultations involving sensitive issues, including when the patient does not speak English? How confident am I based on the consultation that Alex will come back to see me? What techniques could I use to improve rapport and build trust?

<p>Data gathering and interpretation</p> <p>This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.</p>	<p>How confident am I in taking a sexual history and conducting a risk assessment?</p> <p>What further information do I need about Alex's travel plans in order to give advice about infectious diseases and vaccinations?</p>
<p>Clinical Examination and Procedural Skills</p> <p>This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.</p>	<p>What equipment does my surgery have for STI testing in women and men?</p> <p>What methods can be used to test for chlamydia?</p> <p>What factors should be taken into account regarding the timing of STI testing?</p>
<p>Making decisions</p> <p>This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.</p>	<p>How can I decide which vaccinations to recommend to Alex? What resources can I use to assist me?</p> <p>What signs and symptoms would have influenced me to refer to secondary care when Alex presented with diarrhoea and vomiting?</p>
<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>What should I tell Alex about her risk of DVT?</p> <p>What investigations would have been appropriate to initiate when Alex presented as an emergency?</p> <p>What factors would have influenced me to prescribe antibiotics or anti-motility agents when Alex presented with gastroenteritis?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>What factors would I have had to consider if Alex had been pregnant?</p> <p>If Alex had been born or grown up in South East Asia, would this have altered my travel advice?</p> <p>How would I arrange contact tracing for STIs?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>How are patients requiring travel advice or STI testing managed in my practice?</p> <p>What alternative options are there for STI testing in my locality? How can patients access these?</p> <p>Where can my patients receive travel vaccinations such as yellow fever if my practice does not offer it?</p>

<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What is the guidance on management of STIs in primary care?</p> <p>What is the guidance on management of diarrhoea and vomiting in a returning traveller?</p> <p>Where can I seek up-to-date travel advice?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What policies, protocols or systems are there in my practice relating to infection control (e.g. needle stick injury, biohazards, disinfection/sterilisation of equipment, infectious patients in communal areas)?</p> <p>How would I know if Alex's immunisations were up-to-date?</p> <p>How will Alex find out the results of her investigations?</p> <p>How are patients invited and recalled for non-travel vaccinations (e.g. flu, shingles)?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>What other issues might be relevant to discuss in the consultation (e.g. smoking cessation, LARC)?</p> <p>How can I involve Alex in shared decision making in this case?</p> <p>Are there any potential differences between the doctor's and patient's agenda in this case?</p> <p>How would I promote safer sex and travel advice for the future? What social, cultural, religious, sexual and environmental factors might I need to take into account?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What local initiatives exist to prevent patients acquiring travel associated conditions (e.g. free malaria prophylaxis)?</p> <p>Where can I access local public health advice about infectious diseases (including outbreaks)? What are my organisation's emergency response plans?</p> <p>How can I access local antimicrobial guidelines and what is my role as a GP in reducing antimicrobial resistance?</p> <p>How can I best support and empower populations most vulnerable to infectious diseases?</p>

How to learn this area of practice

Work-based learning

General practice is an excellent setting in which to experience a range of common childhood and adult infections. Many will involve pattern recognition, including rashes. You should also find out how opportunistic screening for asymptomatic patients is funded and delivered in your practice. Within on-call, urgent care and out-of-hours settings you will see more acute conditions, which may present differently in primary care than in the hospital. A key skill is to pick out serious pathology from the large numbers of benign, self-limiting conditions, and you should make sure that you see as many unselected patients as possible to give you the experience and confidence to do so.

You may wish to sit in travel and vaccinations clinics within the surgery, attend the local genito-urinary medicine/sexual health clinic, or spend some time with your local health protection team. You could also try to find out about local community initiatives to improve detection and awareness of communicable diseases (e.g. TB), which may involve third sector organisations in partnerships with local councils or the NHS.

During your hospital rotations you are likely to see acute presentations of a range of adult and childhood infectious diseases, along with exacerbations of chronic diseases. You may wish to attend the infectious diseases clinic or ward, along with any other specialist clinics that serve local population needs in this context.

Self-directed learning You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (www.e-lfh.org.uk) which contains online modules about infectious disease, travel health, sexual health and sepsis, amongst others. Commonly used travel advice websites include NHS Fit for Travel (www.fitfortravel.nhs.uk) and Travel Health Pro (<http://nathnac.net>).

Public Health England (PHE) is an executive agency sponsored by the Department of Health. Its website provides up-to-date information and guidance on all aspects of population health, including infectious diseases. PHE has produced guides to Infectious diseases and migrant health, which can be found here: www.gov.uk/topic/health-protection

Learning with other health care professionals

As well as interacting with doctors, nurses, health visitors and public health specialists in the UK, you may wish to speak to health professionals or patients who have trained in or used a health system outside the UK, in order to understand the similarities and differences compared to your own, including potential differences in disease spectrum and presentation.

Structured learning

Various universities offer diplomas or short courses in tropical/travel medicine. The Royal College of Physicians and Surgeons of Glasgow Faculty of Travel medicine offers additional qualifications in Travel Medicine, along with a range of educational resources.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Appropriate antibiotic therapy for specific infections
- Recognition and management of skin infections from photographs
- Interpretation of abnormal blood results

Clinical Skills Assessment (CSA)

- Student has been travelling in SE Asia and has returned last week with a high fever, headache and exhaustion. A thick film for malaria was negative yesterday
- Elderly woman has an itchy rash over her body and limbs. Symptoms are worse at night and persist despite a recent prescription of emollients
- A newly registered patient with HIV wants to discuss shared care arrangements with the local hospital and is concerned about the confidentiality of his medical records.

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about a request for antibiotics to take on holiday in case they are needed for gastroenteritis
- Learning log about managing a man who had who a spider bite while on holiday and is now unwell with an ulcerated skin lesion

Learning log about your involvement in the practice travel clinic.

Kidney and Urology

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to kidney and urological health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in kidney and urological health

As a GP your role is to:

- Identify and manage chronic kidney disease (CKD), and understand the interventions that can delay its progression and reduce the associated increased cardiovascular morbidity and mortality
- Identify and manage Acute Kidney Injury (AKI), including taking early action, such as stopping medications, to reduce the risk of AKI
- Manage common urinary tract problems such as urinary tract infections (UTI), renal stone disease and benign prostatic conditions
- Be alert to possible indicators of urinary tract malignancy
- Know when to refer and when not to refer, avoiding futile investigation and escalation and encouraging supportive care.

Emerging issues in kidney and urological health

- There is increasing awareness that a significant proportion of AKI starts in the community, so GPs have a key role to play in its early identification and management.
- Increased use of cystatin C based eGFR estimates may help reduce over-diagnosis in early stage CKD.
- There is a growing awareness that many urological conditions are associated with obesity, inactivity and metabolic syndrome, which highlights the need for holistic assessment and care of patients with urological problems.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prescribing – understanding medication and dose changes in renal impairment
- Prognosis

Symptoms and signs

Urinary

- Dysuria
- Haematuria
- Lower Urinary Tract Symptoms (LUTS):
 - storage symptoms: frequency, nocturia, urgency
 - voiding symptoms: hesitancy, poor stream, terminal dribble
 - post micturition symptoms: post micturition dribble, sensation of incomplete emptying
- Oliguria, anuria, polyuria
- Proteinuria
- Strangury
- Urinary incontinence – stress, urgency and mixed
- Urinary retention – acute and chronic

Genital

- Abnormal digital rectal examination
- Erectile dysfunction
- Haematospermia
- Penile problems including deformity, skin lesions
- Perineal pain
- Scrotal pain, swelling and lumps
- Testicular pain, swelling and lumps

Abdominal

- Abdominal and loin masses including palpable kidneys and bladder
- Abdominal and loin pain

Systemic

- Anaemia
- Fever and rigors
- Hypertension
- Oedema
- Pruritus
- Thirst
- Systemic symptoms of vasculitis e.g. rash, arthralgia.

Common and important conditions

- Acute Kidney Injury (AKI)
- Cancer: bladder, kidney, penile, prostate, testicular, ureteric
- Chronic Kidney Disease (CKD) including causes, classification, management, monitoring and indications for referral.
- Congenital abnormalities of the urinary tract
- Haematuria (visible or non-visible)
- Inherited kidney diseases such as polycystic kidney disease, Alport syndrome
- Intrinsic renal disease (e.g. glomerulonephritis)
- Overactive bladder syndrome
- Penile problems such as malignancy, paraphimosis, Peyronie's disease, phimosis, priapism, balanitis, skin disorders
- Prostatic problems such as acute and chronic prostatitis, benign prostatic hyperplasia, prostatic carcinoma
- Proteinuria (including microalbuminuria)
- Renovascular disease (renal artery stenosis)
- Systemic conditions causing kidney disease e.g. connective tissue diseases, diabetes mellitus, glomerulonephritis, hypertension, malignancy such as multiple myeloma, nephrotic syndrome
- Testicular problems including epididymitis, hydrocele, orchitis, sperm granuloma, torsion, tumours (such as seminoma and teratoma), undescended and maldescended testes, varicocele
- Urinary incontinence in men
- Urinary incontinence in women: stress and/or urge incontinence. (Prolapse is covered in Topic Guide *Gynaecology and Breast*)
- Urinary tract infections in children and in adults including lower urinary tract infection, pyelonephritis and persistent/recurrent infection
- Urinary tract obstruction including acute and chronic retention; causes including prostatic and other structural abnormalities (strictures, congenital renal tract abnormality such as posterior urethral valves, duplex systems)

- Urolithiasis (stone disease): renal colic, management of stones including lithotripsy and ureteric stents.

(Erectile dysfunction and sexually transmitted infection are covered in Topic Guide *Sexual Health*)

Examinations and procedures

- Abdominal examination to include bladder and kidney palpation
- Assessment of fluid balance status
- Digital Rectal Examination including prostate size, tenderness, nodules
- Genital examination
- Urine dipstick testing.

Investigations

- Blood tests: including creatinine, eGFR, electrolytes, full blood count, prostate specific antigen (PSA), calcium, phosphate, parathyroid hormone (PTH) and Vitamin D
- International Prostate Symptom Score (IPSS) to assess LUTS
- Renal tract imaging including ultrasound and CT/KUB
- Secondary care investigations (such as cystoscopy, ureteroscopy, urodynamic studies and flow rate studies)
- Urine tests: including biochemistry, microscopy, culture and sensitivities, quantification of urinary albumin and protein.

Service issues

- Call and recall systems to ensure patients with CKD receive appropriate monitoring
- Circumcision for religious or cultural beliefs – including ethical issues
- Debate around the role of the prostate-specific antigen (PSA) blood test as a screening test for prostate cancer
- Local continence services and arrangements for management of long term urinary catheters
- The role of chaperones in intimate examinations.

Additional important content

- Being aware that the patient's physiology and anatomy may be different from the patient's gender
- Catheters: types, indications, management, problems such as bypassing, infection, self-catheterisation, use of catheters in paraplegic patients
- Conservative management of end stage renal failure including management of anaemia
- Dialysis: peritoneal and haemodialysis, including complications that may be encountered in primary care (such as infection of catheter sites, fluid balance disturbance)
- Methods to estimate and measure glomerular filtration rate (GFR), including their limitations and necessary adjustments
- Nephrostomy and cystostomy care
- Prescribing in kidney disease (e.g. dose adjustment in renal impairment) and an awareness of nephrotoxic medications
- Renal transplantation and post-transplant care that is relevant to primary care.

Case discussion

Nigel is a 37-year-old businessman who presents to you having recently had a 'well man' check through his employer's private health care provider. At this check he was found to have 2+ blood and 3+ protein on his urine dipstick and was advised to see his GP to follow this up. He is otherwise fit and well and asymptomatic. Abdominal examination is normal, and his blood pressure is 155/93. The urine dipstick shows persistent proteinuria and non-visible haematuria. He tells you his mother had a renal transplant five years ago but he's not sure about the reason for this. You arrange some blood tests which show he has an eGFR of 46ml/min/1.73m².

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are my thoughts on the private sector providing 'well person' checks? What difficult issues might be raised by the results from these checks?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	Knowing more about his mother's kidney problem might be very helpful here, but raises issues regarding medical confidentiality – how can I explore this ethically? How would I respond to health enquiries from an employer who provide screening for employees?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	What do I need to find out about this patient's ideas and concerns and expectations regarding his health? What strategies could I use to explore how much Nigel already knows about kidney disease given the family history of a kidney transplant? How can I explore how this family history might be impacting on his own concerns? How do I explain to the patient what the cause of his abnormal urine dipstick and blood results might be?

<p>Data gathering and interpretation</p> <p>This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.</p>	<p>What is the significance of an eGFR of 46ml/min/1.73m²?</p> <p>What other investigations might I want to carry out?</p>
<p>Clinical Examination and Procedural Skills</p> <p>This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.</p>	<p>What factors affect the accuracy of urine dipstick testing?</p> <p>How would I assess fluid balance status?</p>
<p>Making decisions</p> <p>This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.</p>	<p>How do I decide whether or not referral to secondary care is indicated and if so to which specialty (urology or nephrology) and with what urgency?</p>
<p>Clinical management</p> <p>This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.</p>	<p>What are the indications for referral to secondary care for investigation of haematuria, proteinuria or reduced eGFR?</p>
<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>It is possible this represents an inherited kidney disease and will have implications for Nigel's relationships with his mother, wider family and children. How would I explore this with him?</p> <p>What issues might arise when considering whether someone with a genetic condition should be advised to inform their relatives that they may have inherited the condition? What if they decline to inform their relatives?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>If I decide to refer Nigel to the local Kidney Unit, how can I collaborate with them to provide high quality care for him?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>Where can I find out more about CKD and AKI?</p> <p>How do I maintain my knowledge of rare conditions such as inherited kidney disease?</p>

<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What systems can help with effective primary care monitoring and recall of patients with chronic diseases such as CKD?</p> <p>What role do IT systems such as EMIS 'Patient Access' have for helping patients engage with their chronic disease management? What issues are raised by these systems?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>What impact might kidney disease have on a patient's life?</p> <p>What is the place of 'well person' checks? What ethical issues are raised by these?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How can we promote increased awareness of kidney disease among our local population?</p> <p>Are there any communities locally who may be at higher risk of kidney disease?</p>

How to learn this area of practice

Work-based learning

- General practice is where the vast majority of patients with kidney and urological health issues present. GPs have a key role in identifying and managing the majority of patients with CKD. The UK Renal Association website has an excellent UKeCKD Guide available on their website www.renal.org/information-resources/the-uk-eckd-guide#sthash.aR3HaMDP.dpbs. These concise pragmatic guidelines can be referred to when managing patients identified with CKD.
- Some GP specialty trainees will have dedicated hospital placements with renal medicine or urology teams, where the management of acute or complex cases can be observed.
- Kidney problems are very common among medical inpatients; nearly all hospital training posts will bring some exposure to CKD and AKI in particular. Trainees with paediatric placements may encounter childhood renal and urology problems.

Self-directed learning

You can find e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (www.e-lfh.org.uk) and at RCGP Learning www.elearning.rcgp.org.uk. The RCGP have a toolkit on AKI <https://www.rcgp.org.uk/clinical-and-research/resources/toolkits/acute-kidney-injury-toolkit.aspx>

Learning with other healthcare professionals

CKD is a chronic disease and has significant overlap with other chronic conditions, in particular diabetes, hypertension and vascular disease. Experience gained with specialist nurses working in these fields will often include experience of managing CKD.

District nurses are particular experts on catheter management and will be able to give tips and advice on this area.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Monitoring of chronic kidney disease
- Drug therapy for prostatic cancer
- Investigations for haematuria

Clinical Skills Assessment (CSA)

- Middle-aged man has abdominal and loin pain. Examination expected.
- Woman with diabetes and hypertension is recalled urgently to discuss a sudden drop in renal function. She is recovering from gastroenteritis.
- Young woman with multiple sclerosis wants to discuss worsening urinary incontinence

Workplace-based Assessment (WPBA)

- Observed Clinical Examination and Procedural Skills (CEPS) on a prostate examination in a man with a raised PSA
- Learning log reflecting on a teenager who delayed several months before attending with a testicular swelling
- Audit – Looking at the prescribing of long-term antibiotics for patients with recurrent UTIs

Mental Health

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to mental health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of people with mental health conditions

As a GP, your role is to:

- Diagnose, investigate and manage mental health conditions using history, examination, support, management and referral where appropriate. Take into account potential complexities in presentation and range of mental health needs
- Communicate effectively, professionally and sensitively with patients, relatives and carers, recognising potential difficulties in communicating with people with mental health conditions and the importance of generating and maintaining rapport
- Assess risk to make the patient's safety and the safety of yourself and others a priority. Ensure early intervention by appropriate referral, follow up and continuity of care where necessary. Offer advice on when and who to call for help ('safety-netting')
- Coordinate care with other organisations and professionals (e.g. ambulance service, community mental health teams, social workers, secondary care, voluntary and community sectors and police). Follow agreed protocols, including those as part of The Mental Health Act and The Mental Capacity Act where appropriate
- Avoid diagnostic overshadowing. Offer advice and support patients, relatives and carers regarding prevention, prescribing, monitoring and self-management of both mental and physical multimorbidity (including those related to cardiovascular disease and diabetes).

Emerging issues in mental health

New patient care pathways that better join-up primary, secondary and community care are being developed. Understanding how to access these pathways as well as knowing how they function is important for the care of new and existing patients with mental health conditions. In older people, symptoms of anxiety and depression are increasingly recognised as an indication of early dementia which only becomes apparent with longitudinal support and management.

There is a significant burden of mental health illnesses such as post-traumatic stress disorder (PTSD), anxiety and depression in vulnerable populations, including refugees and migrants. Patients are increasingly using self-referral pathways for self-help and counselling.

In particular, there is an increasing recognition of the need to have more focus on the following issues:

- Improving the integration of care between primary, secondary and community care and the transitions of care (e.g. moving from child to adult services)
- The role of self-referral pathways for self-help, counselling and psychological support
- Improving people's understanding of mental health;
- Children and young people, including early detection and intervention;
- The positive effects of employment and other work activity;
- Vulnerable people and at-risk groups;
- The interactions between mental and physical health and the need for holistic care
- Suicide prevention; and
- Community resilience.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease support
- Patient information and education including self-care
- Prognosis

Symptoms and signs

People with unexplained physical symptoms may have underlying psychological distress. There may be problems in medicalising distress. Repeated investigation may be unhelpful in terms of patient suffering and healthcare costs.

Below is a list of common presentations of mental illness, some of which may overlap with presentations of distress and other conditions:

- Abdominal symptoms such as bloating, discomfort and altered bowel habit
- Appetite changes including secondary amenorrhea
- Awareness of heart beat and chest tightness including palpitations and bradycardia
- Biological features of depression.

- Fatigue and feeling tired all the time
- Hallucinations
- Medically unexplained physical symptoms, including somatoform disorders
- Mood and behaviour changes, such as anger, anhedonia, hypervigilance and self-harming behaviours
- Poor concentration
- Psychomotor agitation or retardation
- Sleep disturbance including insomnia, night terrors and early morning awakening
- Tearfulness
- Thought disorders.

Common and important conditions

- Abuse including child, sexual, elder, domestic violence, emotional including non-accidental injury
- Acute mental health problems including acute psychoses, acute organic reactions, the suicidal patient, psychological crises and the application of the Mental Health Act as applicable to all the UK Home countries
- Addictive and dependent behaviour such as alcohol and substance misuse. This is common in those experiencing mental health problems (termed 'dual diagnosis') and is often unrecognised
- Affective disorders, including depression and mania
- Anxiety including generalised anxiety and panic disorders, phobias, obsessive compulsive disorder, situational anxiety and adjustment reactions
- Behaviour problems such as attention deficit /hyperactivity disorder, enuresis, encopresis, school refusal
- Bereavement reactions
- Cultural and societal aspects of mental health including work, spiritual and religious beliefs and practices
- Self-harm including putting themselves in dangerous situations as well as self-poisoning, cutting and skin picking. Suicidal thought disorders. Men who self-harm have a higher risk of suicide
- Eating disorders including morbid obesity, anorexia and bulimia nervosa, body dysmorphia and Other Specified Feeding and Eating Disorders (OSFED)
- Emotions and their relevance in well-being and mental illness
- Learning difficulties - the range of mental health problems that people with learning difficulties may experience
- Mental health disorders associated with physical health disorders e.g. psychosis associated with steroid therapy, depression associated with Parkinson's disease, diabetes and other chronic diseases
- Mental health disorders due to substance misuse
- Mood (affective) problems such as depression including features of a major depression such as psychotic and biological symptoms; bipolar disorder, assessment of suicidal risk; detection of masked depression
- Obsessive compulsive behaviours

- Organic reactions— acute and chronic such as delirium with underlying causes such as infection, adverse reactions to drugs
- Personality disorders including borderline, antisocial, narcissistic
- Pregnancy associated disorders such as antenatal, perinatal and postnatal depression, puerperal psychosis
- Psychological problems including psycho-social problems and those associated with particular life stages such as childhood, adolescence and older people
- Relationship with substance misuse and dependence including alcohol and drugs of misuse and other habit disorders such as gambling
- Severe behavioural disturbance including psychotic disorders such as schizophrenia, acute paranoia and acute mania
- Sleep disorders including insomnia, sleep walking
- Trauma including rape trauma syndrome, post-traumatic stress disorder, dissociative identity disorder
- Trichotillomania.

Examinations and procedures

- Relevant physical examinations including cardiovascular and abdominal examinations
- Exploring both physical and psychological symptoms, family, social and cultural factors, in an integrated manner
- Assessing and managing suicidal ideation and risk. Co-creating and implementing an immediate safety plan with a suicidal patient.
- The role of the GP in sectioning patients; awareness of the Mental Health Act and the Mental Capacity Act (or equivalent legislation)
- Electroconvulsive therapy indications and side effects
- Self-help and psychological therapies such as cognitive behavioural therapy, eye movement desensitisation and reprogramming, counselling, psychotherapy, psychoanalysis, aversion, flooding and desensitisation therapies.

Investigations

- Screening for metabolic and cardiovascular risk factors, in people with severe mental illness, and that such risks are minimised through appropriate lifestyle advice and management, including facilitating behaviour change
- Assessment tools for mental health conditions such as depression, anxiety, postnatal depression screening scales, dementia screening, suicide risk assessment and risk of self-harm
- Monitoring of treatments such as anxiolytics and antipsychotic medication
- Relevant physical investigations such as blood tests, ECG and relevant neurological investigations.

Service issues

- Urgent care services including Emergency Departments, liaison psychiatry, crisis services such as 'recovery or 'crisis' cafes and telephone support. These services may vary significantly in different areas and between postcodes

- Voluntary and community services and charities that promote mental health and wellbeing
- The prevalence of mental health conditions and needs amongst your own practice population
- The difference between depression and emotional distress, and avoiding medicalising distress
- The role of case-finding in identifying people at risk of developing mental health conditions, e.g. those with long term physical illnesses, using effective and reliable instruments where they are available
- Practice registers for specific mental health conditions and recording the required data
- Increasing equity of access to primary care and mental health services including potential increased access issues for those who are vulnerable or have different cultural backgrounds
- The effect of practice systems on continuity of care, e.g. appointment systems that prioritise access may reduce patient continuity
- The range of psychological therapies available including cognitive behavioural therapies, mindfulness, counselling, psychodynamic, psychosexual and family therapy
- Safe prescribing, including duration of prescriptions, drug interactions and side effects, required monitoring, consequences of overdose, and prescribing in children, pregnant women, and the elderly
- The importance of concordance in mental health care. Supporting patients in making choices about which treatment options may work best for themselves. The ability to choose improves the likely effectiveness of the intervention
- Supporting children in difficulty, and accessing support and advice from specialist Child and Adolescent Mental Health Services (CAMHS) and CAMHS workers in primary care
- The needs and services for veterans including the psychological effects of trauma and war (e.g. post-traumatic stress disorder).

Additional important content

- Balancing confidentiality with safeguarding including liaising with family and carers
- The usefulness of models of mental illness that create an artificial separation between mind and body – particularly in understanding psychosomatic complaints, psychological consequences of physical illness and medically unexplained symptoms
- Impact of social circumstances such as poverty, debt, inequalities and upbringing on mental illness; effective management of these social circumstances to aid recovery
- The evidence base for the positive relationship between work and mental health, and the association between unemployment and declining mental health
- Contribution of mental health problems to disability and social exclusion
- Depression and anxiety in people with long-term physical conditions, and their role in increased morbidity and mortality in these conditions
- Stigma that can be associated with the label of a mental health condition and the potential associated discrimination and isolation
- Cultural sensitivity and awareness; cultural dimensions of mental illness, including assumptions that may not be universal, e.g. that a psychological intervention may not be acceptable to some people who have alternative explanations for, and understanding of, their symptoms

- The well-being agenda, mental health promotion and psychosocial interventions in preventing mental ill-health.

Case discussion

Bushra is 51 years old and works as a teaching assistant. Her husband has just been made redundant from his job in a national IT company. Bushra attends your surgery complaining that she feels 'uptight' all the time and finds it difficult to sleep. She is tearful in the consultation but doesn't feel that her mood is low. She says she is 'just about coping' with her job, but feels she is getting frustrated with her pupils and her children. She tells you she is worried because her brother is on some very strong tablets for a 'serious mental problem' which the family are ashamed to talk about.

You discuss with her the possibility that she has 'anxiety' and might benefit from treatment. You also suggest she has a blood test to 'check her thyroid'. She agrees to have the blood test but says she doesn't want tablets – she feels that she should be able to sort things out for herself. She also feels that tablets are only for weak people.

You suggest support from the local psychological therapies service. She is not too sure, but you give her details of the service and explain that it is a 'self-referral' service and she needs to make contact with them herself. You also give her some written material about anxiety and panic and ask her to come and see you in two weeks.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are the boundaries of my involvement and responsibilities in Bushra's case? How do I maintain my own health as a GP? What is meant by 'resilience'?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How do I feel about patients consulting me with complex psychosocial and mental health problems? How do I deal with my feelings about working with patients who are distressed? What are the relevant sections from Good Medical Practice?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient	How might mental health problems affect communication between doctor and patient?

partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How do I achieve empathy and understanding of mental health issues? How do my own feelings affect my interactions?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What is the differential diagnosis in this case? What elements of the patient's narrative and biographical data point to risk factors for depression? How do I sensitively assess alcohol and drug misuse?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What clinical assessment tools for depression and anxiety are appropriate for use in Primary Care? What are the essential 'red flag' symptoms and signs for depression and anxiety? How would you assess suicide risk in this patient?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	How do I differentiate between organic and psychological symptoms? Am I familiar with variations and patterns of presentations of common mental health conditions? How might time and continuity influence my decisions?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What are the important evidence-based guidelines for management of mental health issues in Primary Care? When and how should I refer to specialist services? How do I manage continuity of care, response to treatment, and regular monitoring?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	How does pre-existing or comorbidity affect the presentation of mental health conditions? What conditions have most significant implications for medical management and drug treatment? What are the priorities for ensuring patient safety?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	What alternative interventions and therapies are available in Primary Care? How do we create seamless multi-disciplinary services in this field? How do we define areas of responsibility and leadership in mental health services?
Improving performance, learning and teaching	What are the best sources of updated information in Mental Health?

<p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What is the role of peer group support e.g. Balint groups?</p> <p>How can I audit the standard of care I provide?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What additional risk factors should I screen for in patients with mental health conditions?</p> <p>What systems do I need to be in place to ensure safe and consistent monitoring?</p> <p>How do we develop services to provide ready access to marginalised and stigmatised members of society?</p> <p>What are the advantages and disadvantages of 'self-referral' systems?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>What are the important determinants and influences on mental health?</p> <p>How does my role extend beyond the medical model?</p> <p>How well equipped am I to explore cultural and spiritual factors in patients' lives?</p> <p>Why might patients be reluctant to access psychological services?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>How can I ensure equity of access to mental health services?</p> <p>What community resources are available for my patients with mental health conditions (including the third sector)?</p> <p>How do I ensure that I understand and recognise the cultural issues in my practice population? Are there any support groups specifically for patients from certain cultural groups?</p> <p>What might the role of advocacy services be in these sorts of situation</p>

How to learn this area of practice

Work-based learning

As a GP specialty trainee, you should become familiar with the assessment schedules you can use in consultations to aid diagnosis and guide your management. GP trainees should learn from patients and carers by offering health reviews and participating in their training practices' mental health activities.

You should take the opportunity to gain a better understanding of the role of the primary care mental health teams, specialist teams, referral criteria and care pathways. Attend any liaison

meetings that are held in the practice with members of the specialist team. Attending clinic appointments with patients will help you better understand the patient's journey and the partnership across the primary/secondary interface. As a trainee you should also take the opportunity to learn how to adopt a shared-care approach to primary care mental health with the community mental health teams and intermediate care mental health teams.

Some GP training programmes contain placements of varying length in psychiatry units. These will give you exposure to patients with mental health problems, but it is important that as a GP specialty trainee you gain a broader understanding of mental health than can be obtained in the psychiatry ward or clinics. Learn from community mental health teams about how referrals are assessed, which patients are cared for by both primary and specialist care and understanding their physical health needs. There should also be opportunities to learn from graduate mental health workers/psychological practitioners (and other primary care mental health service providers, including the third sector) about which resources are available locally and how to create a local practice resource directory.

Learning with other healthcare professionals

Managing patients with mental health problems often requires teamwork across health and social care, and the third sector. Careful consideration and discussion of the roles of various individuals representing the many professional and non-professional groups should be fruitful. As a GP specialty trainee, it is essential that you understand the variety of services provided in primary care. Joint learning sessions with psychiatry trainees and mental health practitioners will help you gain a greater understanding of both the services provided locally and the need for cross-agency communication and partnership working.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Symptoms of schizophrenia
- Increased health risks of atypical antipsychotic drugs
- Cognitive behavioural therapy in anxiety management.

Clinical Skills Assessment (CSA)

- Woman has ongoing abdominal pain and the gastroenterology letter (provided) indicates no organic cause
- Young mother is worried by thoughts that TV and radio presenters are talking about her, despite acknowledging that this cannot logically be the case
- Teenager asks for help with compulsive tidying which takes hours at a time and is interfering with his school work.

Workplace-based Assessment (WPBA)

- Log entry reflecting on the implications of a rejected referral to mental health services when there are serious concerns about the patient's mental state
- History taking with a patient requesting more sleeping pills.

Metabolic Problems and Endocrinology

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to endocrinology and metabolic problems by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

See also: Topic Guide “*People with long-term conditions including cancer*” and “*Population health*”

The role of the GP in the care of people with metabolic and endocrine problems

Good management of common metabolic and endocrine conditions can prevent or postpone associated morbidity and mortality. Additionally, certain conditions such as diabetes and obesity can be prevented through lifestyle and public health measures.

As a GP, your role is to:

- Diagnose and manage common disorders such as diabetes mellitus, hyperlipidaemia, thyroid and reproductive disorders
- Recognise rarer and potentially life-threatening disorders such as Addison’s disease
- Arrange and interpret appropriate biochemical tests for diagnosing and monitoring metabolic or endocrine disorders in a primary care setting
- Understand and address the social, psychological and environmental factors underpinning obesity, diabetes and other metabolic and endocrine disorders
- Understand the relationship between metabolic/ endocrine disorders and other disorders such as cardiovascular disease and cancer
- Coordinate care, encourage self-management, and involve other agencies where appropriate
- Recognise and manage metabolic and endocrine emergencies.

Emerging issues in the care of people with metabolic and endocrine problems

GPs should understand the term ‘pre-diabetes’, including its diagnosis and management, and the growing significance of non-alcoholic fatty liver disease. You should also be aware of the increasing use of surgery in the management of obesity and diabetes, including its benefits and risks, and the role of the GP in post-surgery management.

As people with metabolic or endocrine conditions live longer and become frailer, their medical needs may change. For example, older people with diabetes can face challenges such as difficulties with diagnosis, different glycaemic control targets, polypharmacy, and malnutrition. GPs should rationalise medication use wherever appropriate, thinking carefully about benefits versus potential harms.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition, including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring and end-of-life care
- Patient information and education including self-care
- Prognosis

Symptoms and signs

Metabolic and endocrine diseases encompass a wide range of conditions, which may present with vague/non-specific symptoms, or no symptoms at all.

Symptoms and signs include (but are not limited to):

- Changes in reproductive and sexual function e.g. menstrual irregularities, loss of libido, body hair changes and erectile dysfunction
- Collapse and coma
- Falls
- Fractures
- Gastrointestinal symptoms e.g. nausea, vomiting, diarrhoea, constipation
- Headache and visual problems
- High blood pressure
- Joint pains and muscle problems
- Mood changes
- Polydipsia and polyuria
- Pruritus
- Skin changes
- Symptom complexes and their characteristics
- Thirst
- Tiredness and lethargy
- Weight gain/weight loss.

Common and important conditions

- Adrenal diseases including Addison's disease, Cushing's syndrome and disease, pheochromocytoma, hyperaldosteronism, primary and secondary malignancy, ACTH secreting tumours, congenital adrenal hyperplasia
- Adverse metabolic effects of prescribed drugs (e.g. hypokalaemia with diuretics)
- Carcinoid syndrome, multiple endocrine neoplasia
- Diabetes mellitus — type 1, type 2, and rarer types such as MODY (maturity onset diabetes of the young) and LADA (latent autoimmune diabetes in adults), pre-diabetes, impaired fasting glucose, impaired glucose tolerance, insulin resistance, gestational diabetes. In the context of these conditions, you should be aware of:
 - diagnostic thresholds;
 - self-monitoring of glucose levels;
 - skin and eye manifestations, renal and neurological complications;
 - macrovascular complications and cardiovascular risk;
 - acute complications such as hypoglycaemia, diabetic ketoacidosis, non-ketotic hyperglycaemia;
 - lifestyle factor modification (e.g. diet, physical activity, smoking)
 - medication in diabetes management, including glucose and lipid lowering therapies, anti-platelets, ACE inhibitors and antihypertensives; recommended treatment targets; and
 - insulin regimes, administration and dosages
- Disorders of calcium metabolism, including hypoparathyroidism, hyperparathyroidism and osteomalacia; association with chronic kidney disease and malignancy (e.g. bony metastases and myeloma)
- Disorders of sex hormones (e.g. hirsutism, virilism, gynaecomastia, impotence, androgen deficiency, androgen insensitivity syndrome)
- Endocrine manifestations of non-endocrine diseases (e.g. bronchogenic carcinoma with inappropriate ADH secretion)
- Haemochromatosis: primary and secondary, and other disorders of iron metabolism
- Hyperlipidaemias: familial and acquired
- Hyperprolactinaemia and its causes (e.g. drug-induced, chronic renal failure, bronchogenic carcinoma, hypothyroidism, pituitary)
- Hyperuricaemia: primary and secondary (including haematological and drug-induced causes) and its associations with obesity, diabetes, hypertension and dyslipidaemia
- Hypothalamic causes of hormonal disturbances (e.g. hyperprolactinaemia, drug-induced)
- Inherited metabolic diseases (e.g. phenylketonuria, glycogen storage diseases, porphyrias)
- Metabolic causes of unconsciousness (e.g. hypoglycaemia, diabetic ketoacidosis, hyponatraemia, hypothyroidism, adrenal insufficiency)
- Non-alcoholic fatty liver disease (NAFLD), including its associations with diabetes, obesity and metabolic syndrome, and its consequences
- Osteoporosis
- Overweight and obesity:
 - Assessment and classification using Body Mass Index (BMI), and limitations of this method

- Health consequences of obesity (including malnutrition, increased morbidity and reduced life expectancy)
- Health promotion advice (including nutrition, smoking cessation, physical activity)
- Pharmacological therapies for weight reduction
- Risks and benefits of bariatric surgery
- Direct and indirect impact of obesity on a wide range of disease areas
- Pituitary diseases including acromegaly, primary and secondary hypopituitarism, diabetes insipidus
- Poisoning (deliberate or unintentional) including by food, drugs (prescribed, over the counter or non-medicinal) or other chemicals
- Polycystic ovary syndrome (see RCGP Topic Guide *Gynaecology and Breast Health*)
- Psychogenic polydipsia
- Replacement and therapeutic steroid therapy
- Thyroid diseases including goitre, hypothyroidism, hyperthyroidism, benign and malignant tumours, thyroid eye disease, thyroiditis, neonatal hyper- and hypo-thyroidism:
 - Antibody testing, thyroxine replacement therapy and monitoring
 - Associations with other conditions, including cardiovascular disease
 - Potential for thyroxine abuse and strategies to reduce dosage
- Vitamin D deficiency, including its causes, health consequences/complications, testing, and replacement therapy.

Examinations and procedures

- Relevant focused examinations in order to identify: features of common and important metabolic/endocrine conditions, underlying causes, manifestations of disease progression, and associated conditions
- Specific examinations (e.g. assessment of neuropathy in diabetes, examination of a neck lump, visual field testing).

Investigations

- Common primary care tests to investigate and monitor metabolic/endocrine disease (e.g. fasting blood glucose, HbA1c, urinalysis, urine albumin:creatinine ratio, 'near patient testing' (point of care testing), lipid profile, thyroid function tests, and uric acid)
- Other laboratory investigations such as renal, liver, pancreatic, adrenal, pituitary, hypothalamic, ovarian and testicular function, antibody tests (e.g. GAD, thyroid antibodies)
- Normal biochemical parameters for common laboratory tests of metabolic/endocrine disease
- Imaging (e.g. DEXA scan and interpretation) and tests of endocrine and metabolic dynamic function
- Screening of asymptomatic individuals to diagnose metabolic conditions (e.g. diabetes and pre-diabetes).

Service issues

- Screening tools and prevention programmes for conditions such as diabetes and osteoporosis

- Safe prescribing and medicines management, including approaches to polypharmacy, non-concordance with treatment, insulin therapy, and in women of childbearing age
- Early recognition, monitoring and evidence-based management of co-morbidities, complications, and cardiovascular risk in patients with conditions such as diabetes, obesity and thyroid disease
- Systems of care for people with metabolic/endocrine conditions, including primary and secondary care, voluntary sector organisations, shared-care arrangements, multidisciplinary teams, patient involvement, and structured education programmes
- Technology to improve practice and support collaborative care planning for people with long-term endocrine or metabolic conditions
- Key national policy documents influencing healthcare provision for people with metabolic/endocrine conditions
- Prescription charge exemptions for patients with certain conditions
- Population-based health interventions (e.g. exercise on prescription).

Additional important content

- Key guidance (e.g. NICE, SIGN) and research findings (e.g. UKPDS) influencing the management of metabolic/endocrine conditions
- Associations between autoimmune diseases (e.g. diabetes, Coeliac and thyroid disease)
- Rare secondary causes of diabetes and thyroid disease (e.g. pancreatic disease, amyloid)
- 'Sick day rules' (e.g. in diabetes, adrenal insufficiency)
- Genetic and environmental factors (e.g. ethnicity, lifestyle, social inequalities) affecting prevalence and outcomes in conditions such as diabetes
- Lifestyle interventions (including social prescribing) for conditions such as obesity, diabetes mellitus, hyperlipidaemia and hyperuricaemia
- Behaviour change consultation tools, such as motivational interviewing, Very Brief Advice (VBA) for smoking cessation
- Risk-benefit conversations with patients (including risks of complications)
- Risk calculation tools (e.g. QRISK, QDiabetes)
- Psychosocial impact of long-term metabolic conditions on individuals and their wider social networks (e.g. the risk of depression and other mental health problems, sexual dysfunction, impact on employment and driving (including DVLA guidance))
- Indications for referral to an endocrinologist, metabolic medicine or other specialist.

Case discussion

Mrs Jones is 46 years old with a BMI of 36. Despite numerous diets over the years, she has never managed to achieve sustained weight loss. She has a history of hypertension, hyperlipidaemia, and type 2 diabetes mellitus that was diagnosed three years ago. Annual checks have identified background retinopathy but no evidence of nephropathy or neuropathy. Six months ago, she was started on insulin by the diabetes specialist team as her glycaemic control was poor on maximal oral hypoglycaemic therapy and she was due to undergo a cholecystectomy.

Unfortunately, her glycaemic control as measured by HbA1c has deteriorated further since starting insulin. Her blood pressure, cholesterol and triglycerides are elevated, and her weight has increased by 3 kg over the last six months.

Mrs Jones is a single parent to two young children. She also looks after her elderly parents and works full-time at a local bank. She has stopped driving, which she says is making life more stressful. You are concerned that she is not prioritising her health or coping with insulin injections.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are my own views about overweight and obesity? How might my attitude and societal attitudes to obesity influence how I care for patients who are overweight? What is unconscious bias?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	How would I present to Mrs Jones the risks of complications from obesity or diabetes? Is there a risk of under- or overstatement? What factors might influence this? As Mrs Jones' GP, what is my legal responsibility in relation to her fitness to drive with diabetes? What is the GMC's advice? What ethical issues may arise when sharing information within a multidisciplinary team?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	Have I explored Mrs Jones' ideas, concerns and expectations? How can I communicate my concerns about her health? How could I approach health promotion in this case? And if the patient were a child, adolescent, pregnant, or from an ethnic minority?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What potential emergencies may arise in this situation? How would I recognise a diabetic emergency? Does my surgery have the appropriate equipment to diagnose and manage diabetic emergencies?

	What factors may affect the validity of an HbA1c value?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What clinical signs might I find in someone with poorly controlled diabetes? How confident am I in examining for diabetic neuropathy? Do I know to use the blood glucose monitors/ketone meters in my practice?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	Why might Mrs Jones' glycaemic control have deteriorated? How would I assess Mrs Jones' cardiovascular risk? What else would I need to know to do this? How confident am I to give nutritional advice, prescribe and alter medications in the care of diabetic patients?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	How can I demonstrate my ability to act as a team leader in this case? What drug and non-drug approaches might be adopted in this case? What factors might influence whether drug or non-drug management is adopted?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	How would I explain to Mrs Jones the importance of managing her blood glucose, blood pressure, lipids and weight? What do I know about the benefits and harms of tight glucose control in diabetes? What targets should be aimed for in this case? How will I decide?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	Which other professionals should be involved in this case? How do I liaise with them? How are diabetic patients managed in my practice? Who follows them up? What are the shared care protocols? How will I know whether Mrs Jones has attended her retinopathy screening or podiatry appointments?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service	What is the evidence base for current glycaemic, lipid and blood pressure targets in diabetes? What are the key national guidelines, frameworks, recommendations or quality standards relevant to this

development, quality improvement and research activity.	<p>case (including the management of cardiovascular disease)?</p> <p>What is the guidance on diabetes management during Ramadan?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>How would I audit the diabetic care in my practice? What standards and criteria would I use, and why?</p> <p>How would I use disease registers and data-recording templates in my practice to monitor diabetic patients and ensure continuity of care between primary care and other services?</p> <p>How does the practice receive and act on test results or feedback from secondary care?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>What psychological, socio-economic and cultural factors might influence the health of this patient? Why? What questions should I ask to ascertain this?</p> <p>What barriers to good health care might Mrs Jones face (a) within the consultation and (b) more generally?</p> <p>How might the issues in this case impact on Mrs Jones' family?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What is the local strategic approach to tackling obesity in my area, including non-NHS partners?</p> <p>What local, national and international public health interventions am I aware of to tackle obesity?</p> <p>What local initiatives exist to tackle health inequalities among people with conditions such as diabetes?</p> <p>What non-NHS organisations do I know of that might be relevant to this case?</p>

How to learn this area of practice

Work-based learning

Primary care is where the vast majority of patients with metabolic conditions present and are managed. Particular areas of learning in this setting include: prevention and risk factor management, communication and consultation tools to help people change health behaviours, acute and emergency management of metabolic problems, and chronic disease management including surveillance for and early diagnosis of complications.

Some GP practices offer more specialised services in diabetes or obesity. Other arrangements may include intermediate diabetes care clinics. You will find it beneficial to attend some sessions.

Placements with acute diabetes or endocrinology specialists give trainees exposure to patients with serious metabolic or endocrine problems in the acute setting. Most specialist care is, however, provided in outpatient clinics and you should take the opportunity to attend specialist diabetes, endocrine and obesity clinics when working in other hospital posts and during your GP placements. This experience will enable you to learn about patients with uncommon but important metabolic or endocrine conditions (such as Addison's disease and hypopituitarism), as well as about patients with complex needs, or with complications of the more common metabolic conditions.

Particular areas of learning include: how to recognise metabolic or endocrine disorders that may be life-threatening if missed, which types of patients are best followed up by a specialist team, and when patients usually managed in primary care should be referred to a specialist team, including the timing and route of such referrals.

Self-directed learning

You can find an e-Learning module(s) relevant to this Topic Guide at e-Learning for Healthcare ([e-lfh.org.uk](http://elfh.org.uk)) and on the RCGP's elearning site <http://elearning.rcgp.org.uk/>

Learning with other health care professionals

Achieving good outcomes in the management of chronic metabolic conditions such as diabetes requires well-organised and co-ordinated services that draw on the knowledge and skills of health and social care professionals. As a specialty trainee you should attend nurse-led diabetes annual review assessments and participate in the follow-up of diabetic and other patients with metabolic/endocrine disease in primary care. You should take the opportunity to sit in with colleagues such as specialist diabetes or obesity nurses, dieticians and psychologists.

Structured learning

Some higher-education institutions provide postgraduate certificate courses in diabetes, nutrition, or metabolic problems. RCGP resources on diabetes, obesity and nutrition – including further qualifications — can be found in the clinical resources section of its website www.rcgp.org.uk

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- DVLA regulations for diabetes
- Symptoms of acute Addisonian crisis
- Pituitary hormone test interpretation.

Clinical Skills Assessment (CSA)

- Airline pilot with type 2 diabetes is on maximum oral hypoglycaemic drugs and has an increasing HbA1c which is now 68 mmol/mol
- Obese young woman is failing to lose weight on a variety of different diets. Her recent blood results (provided) suggest PCOS
- Middle aged man attends to discuss a recent scan, arranged after blood tests showed mildly abnormal LFTs. The scan shows fatty infiltration of the liver.

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about a woman requesting levothyroxine to lose weight despite normal thyroid function
- Log entry about observing a patient being taught how to start insulin
- Clinical Examination and Procedural Skills (CEPS) on examining a diabetic patient with neuropathy.

Musculoskeletal Health

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to musculoskeletal health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of people with musculoskeletal problems

Musculoskeletal problems constitute a significant proportion of GP consultations. As a GP, your role is to:

- Advise appropriately to support the self-care and prevention of problems
- Intervene urgently when patients present with emergencies or 'red flag' symptoms
- Coordinate care with other health professionals leading to effective and appropriate acute and chronic management. Care of patients with musculoskeletal problems will often involve GPs working closely with specialists in orthopaedic, rheumatology and pain medicine as well as with allied health disciplines such as physiotherapy, occupational therapy, osteopathy and rehabilitation medicine
- Coordinate the holistic care of complex patients presenting with symptoms affecting the musculoskeletal system
- Communicate effectively taking into account the psychosocial impact of musculoskeletal problems on the patient, their family, friends, dependents and employers. People who experience chronic pain often have comorbid psychological diagnoses, and their care may include counselling support.

Emerging issues in the care of people with musculoskeletal problems

- People are living longer, and remaining active for longer, therefore musculoskeletal problems are presenting to general practice more frequently. More people than ever before have their joints injected, replaced or resurfaced, often in advanced years, due to advances in medical technology and surgical expertise. At the same time, younger patients experiencing musculoskeletal problems as a result of multisystem disorders (e.g. rheumatoid arthritis) have more medical and surgical options available than in the past and many have shared care with GPs.
- Musculoskeletal conditions are a common cause of severe long-term pain and physical disability and are major causes for work limitation and early retirement.

- In cases of suspected inflammatory arthritis urgent referral to a rheumatologist can have a significant impact on patients' disease in both the short and long term.

Knowledge and skills guide

For the care of people with musculoskeletal problems, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Fracture prevention and use of tools to assess fracture risk
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care and chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Extra-articular symptoms associated with musculoskeletal disease (e.g. skin, eye, gastrointestinal manifestations)
- Falls
- Joint pain, stiffness, swelling, deformity, redness (including individual joints such as back and neck, jaw, hip, knee, ankle, foot, shoulder, elbow, wrist, hand or generalised)
- Lumps and deformities of bone, joint or soft tissue
- Muscle pain and weakness.

Common and important conditions

- Avascular necrosis
- Bone cancers including metastatic disease, Ewing's and soft-tissue sarcoma
- Cervical spinal disorders including cervical spondylosis, torticollis and 'whiplash' injuries, vertebral fracture and long-term consequences
- Congenital/inherited diseases such as osteogenesis imperfecta, Marfan's syndrome, Ehlers-Danlos syndrome, Gaucher's disease, hypermobility syndromes
- Crystal arthropathies such as gout, pyrophosphate arthropathy
- Fractures, dislocations, haematoma, sprains, strains and other significant soft-tissue trauma: recognition and principles of management
- Hand disorders such as trigger finger, Dupuytren's contracture, carpal tunnel syndrome, ulnar nerve compression. Foot disorders such as plantar fasciitis, digital neuroma

- Infection such as septic arthritis and osteomyelitis
- Inflammatory arthritis and connective tissue diseases such as: rheumatoid arthritis, sero-negative arthritis such as psoriatic arthropathy and axial spondyloarthritis
- Lymphoedema
- Muscle disorders such as polymyalgia rheumatica and giant cell arteritis, polymyositis and dermatomyositis, fibromyalgia, muscular dystrophies and myasthenia gravis
- Osteoarthritis including joint replacement surgery risks and complications
- Osteoporosis: primary and secondary
- Reactive arthritis, viral arthropathy; connective tissue disorders such as systemic lupus erythematosus, scleroderma, systemic sclerosis
- Skeletal problems including disorders of calcium homeostasis such as osteomalacia, rickets, Paget's disease (see also RCGP Topic Guide *Endocrinology and Metabolic Problems*).
- Soft tissue disorders such as bursitis, epicondylitis, Achilles tendon problems
- Spinal disorders including mechanical back pain, disc lesions, malignancy (primary or metastatic), infection (including osteomyelitis, osteoarthritis, spinal stenosis, osteochondritis), developmental disorders (such as scoliosis and kyphosis), trauma including vertebral fracture and long-term consequences, acute neurological emergencies (such as cauda equina)
- Chronic pain (such as complex regional pain syndrome)
- Trauma including fractures and primary care management of injuries/ first-aid
- Wounds (including surgical) and lacerations: management and principles of care.

Examinations and procedures

- Examinations: functional assessment, examination of back and spine, joint examinations, systemic manifestation of musculoskeletal problems, exclusion of red flags, screening examinations (e.g. GALS)
- Procedures: knowledge of the appropriate use of steroid injections (although the ability to administer them is not essential).

Investigations

- Investigations: blood tests, X-rays, CT and MRI scans, DEXA scans, bone scans, ultrasound, biochemical and immunological indicators of musculoskeletal problems, nerve conduction studies, tissue biopsy

Service issues

- Local service provision for musculoskeletal problems
- Service provision for veterans
- Practice policies for supporting staff and patients with musculoskeletal problems, including creating a healthy workplace.

Case discussion

Jasmine, a 32-year-old care assistant in a local residential home, presents with worsening lower back pain over the past month. The pain is confined to her back and does not radiate down her leg. She dates the pain to an episode where she had to lift a patient off the floor unassisted. She offers the information that staff absence rates in her workplace have been high recently - there are not enough people around to help with manual handling.

On questioning, Jasmine says her appetite and weight have been steady, but she has started to feel a bit low, and she gets increasingly tired towards the end of the day. She has had episodes of back pain in the past, but it has never lasted this long. She lives in a shared house and her family are in the Philippines and rely on the money she sends home to them each month. She is concerned she might be developing a long-term problem which will make her work difficult.

On examination, she looks generally well and is moderately overweight; there is some curvature in the lower spine which disappears when she bends down to touch her toes – she can almost reach her toes but slowly and with some difficulty.

You advise Jasmine about work and physical activity and provide an advice leaflet explaining the simple messages around back pain and how to protect the back when lifting and doing heavy work. You suggest that she tries to lose some weight with the objective of reducing the strain on her back. You recommend simple but regular analgesics, especially at night and provide “safety net” advice.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	General practice can be quite a sedentary profession. How do I look after my own musculoskeletal health? What is my own attitude towards people who I believe are falsifying or exaggerating their musculoskeletal symptoms?

Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What further information would prompt me to raise concerns about the local residential home? Who would I raise any concerns with? How would I express my concerns?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How might I negotiate any conflict over time off work? (E.g. if Jasmine requests 'a sick note for a few weeks until I feel better.')
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What questions would I ask to explore Jasmine's agenda, health beliefs and preferences? How might I help Jasmine to develop her own motivation to lose weight?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What aspects of Jasmine's case cause me concern? What is the likely prognosis? Would investigations be useful? If so, which ones?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What clinical signs might identify back pain with serious pathology? How might I distinguish mechanical lower back pain from nerve root pain?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What are the differential diagnoses for Jasmine's symptoms? What is the diagnosis likely to be? What tools (e.g. scoring systems) are available to assess potential chronicity in back pain? How might I use time as a diagnostic tool?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What options do I have in treating this problem? What follow-up arrangements would I make?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	How would I communicate risk, and involve Jasmine in the management to an appropriate degree? What do I know about methods for helping patients to improve lifestyle factors?

<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>Who else might be involved in the management of Jasmine's back pain e.g. physiotherapy, chiropractor?</p> <p>Do I know how to get advice from colleagues outside of the primary health care team, before referral?</p> <p>What sources of advice do I have within the practice?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What barriers might I face in providing the 'best' care for my patients as defined by national guidelines?</p> <p>What tools are available to stratify those at risk of developing chronic low back pain?</p> <p>What online resources are available which would help me to understand more about her condition?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>What would be the key points of this consultation that should go in the patient's record?</p> <p>How would I read code this consultation?</p> <p>Are there any online resources that I could share with Jasmine?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>What would help Jasmine to stay at work?</p> <p>What self-care and health promotion advice might I provide to Jasmine on this occasion?</p> <p>What steps could I take to facilitate continuity of care for Jasmine?</p> <p>How might cultural beliefs be relevant in this case?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What are the advantages of a local back pain service?</p> <p>What other options are there for managing musculoskeletal disease in the community?</p> <p>What provision might my practice make for patients and staff with musculoskeletal disorders?</p>

How to learn this area of practice

Work-based learning

You will have no shortage of clinical exposure to musculoskeletal problems during your time as a GP trainee. You will see a wide range of conditions and it is worth keeping a log of the cases – to demonstrate that, with experience, you are becoming confident in managing the conditions.

Musculoskeletal problems offer the opportunity for you to develop clinical skills and reflect upon the utility of investigations in managing uncertainty and complexity.

There is no shortage of national guidelines and standards of care that can be used to improve outcomes for musculoskeletal patients. Take the opportunity to reflect on the care that you deliver, using tools such as audits, quality improvement projects, and reviews of referral activity and use of investigations.

The first contact with a patient is crucial and one of the great things about general practice is the ability to use time as a diagnostic tool. Following your patients up can provide a very useful insight into the natural course of musculoskeletal problems and give valuable clues in the clinical conundrums we all face.

Listen to the language your patients use to describe how their 'brittle bones', 'crumbly spines', 'grinding', 'worn-out' joints are affecting them; how they feel their bodies have let them down. And see how positive language can influence the perception of their pain and improve both how you feel about your ability to help, and the outcome for the patient. When a patient states that, 'all I need is a new pair of knees', ask yourself whether you have done what you can to help alleviate pain and improve function, using pharmacological and non-pharmacological interventions.

Few GPs in training will get significant exposure to a core musculoskeletal speciality during their time in hospital attachments but many of the patients you will see during your training, especially the elderly, will have significant musculoskeletal problems. Take time for a focused examination of a painful joint, and ask about mobility issues, work problems and function around the home, in order to get a feel for the impact that musculoskeletal conditions can have on the individual. Remember to consider the psychosocial impact of musculoskeletal problems too.

During placements in A&E you will see plenty of common musculoskeletal problems, including acute back pain. Think about whether you would be confident in managing these patients in the GP surgery setting and whether these patients might be more effectively managed in primary care.

Try to spend some time with speciality nurses and pharmacists engaged in shared-care prescribing of disease-modifying anti-rheumatic drugs (DMARDs). Can you think of some of the benefits and potential pitfalls of shared-care prescribing? What issues do the nursing team have? How are problems communicated to all involved? Think how you would, as a GP, ensure a safe service for your patients in the community.

Consider attending an orthopaedic clinic and explore the decision to undertake a joint replacement for osteoarthritis. What factors influenced the decision? Were they the same factors for each patient you saw? Were patient decision aids being used?

Many areas have 'interface' or 'tier 2' musculoskeletal services in the community or hospital setting. GPs with a Special Interest (GPwSI) or Extended Scope Physiotherapists who work in these services will be able to help you improve your clinical skills, and the patients are a rich resource of common musculoskeletal problems.

Time spent in a local chronic pain service can give a valuable insight into the multidisciplinary approach to managing patients with chronic musculoskeletal and other pain. Pause to reflect on the barriers that patients face to getting back to normal functional levels and also the factors that may have contributed to the development of chronic problems. Were there missed opportunities to address their problems earlier – perhaps preventing progression to a more chronic problem?

Self-directed learning

It's highly unlikely that you will go through the duration of your specialist training and not experience musculoskeletal aches and pains of one sort or other, from the minor through to the more significant. Perhaps you are involved in sport and have noticed some new ache or pain when you are training. How does it make you feel? Are you worried that the pain will get worse? What if you can't do the things you enjoy? What about work? How would you cope if your pain and disability prevented you following your chosen career path?

Reflecting on such issues provides a valuable insight into how your patients may be feeling when they come to see you. Asking about such worries forms part of the thorough assessment of a patient. If you do not address these concerns, you are less likely to help that person and may miss acting on cues that could prevent the patient from developing a chronic problem.

Learning with other healthcare professionals

Patients may seek advice and treatment from a wide range of other professionals and therapists. As a GP, it is important to gain an understanding of what these practitioners do and whether the treatment they provide is supported by an evidence-base in order to advise your patients appropriately.

It is important to understand the role of other registered healthcare professionals involved in musculoskeletal care, including physiotherapists, occupational therapists, chiropractors, osteopaths and podiatrists, to see how their methods differ from yours. These healthcare professionals offer a wide range of interventions and treatments. In particular, time spent with physiotherapists can help improve your assessment and examination skills and enhance your understanding of what patients should expect when they see these professionals.

Other members of the practice team, including nurses and healthcare assistants, spend a lot of time with patients with chronic diseases. They have valuable insights into how patients are getting along. Find out if their assessment includes asking patients about pain and level of function and which validated tools can be used to measure this.

Carers, both professional and informal, may be the best-placed individuals to inform how a person is coping at home and in the community. You often get a very limited view of the stoical patient within the confines of the surgery.

All GPs have a role in advising patients about fitness for work. How this advice is communicated has a significant effect on the future of that individual's working life. Discussion with occupational health physicians involved in Department of Work and Pensions work-capability assessments can help you understand how decisions regarding work fitness are made and how you as a GP can facilitate patients to stay in work, for example by delivering a consistent message around back pain.

Structured learning

There are many e-Learning resources available and the RCGP online learning environment has a module on musculoskeletal care (www.elearning.rcgp.org.uk/msk).

Look out for core musculoskeletal skills courses, aimed at GPs, which offer the opportunity to develop your consultation and examination skills, as well as keeping you up to date with the latest evidence and opinion on best practice. You may also consider attending courses offering joint injection training.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Risk factors for osteoporosis
- Differential diagnosis of muscle pain
- Recognition of acute, inflammatory arthritis

Clinical Skills Assessment (CSA)

- A profoundly deaf man is training for a charity marathon and has developed pain in his outer thigh. Examination expected
- An elderly man has had persistent low back pain for six weeks which is keeping him awake. Examination expected
- Teenage boy has had intermittent groin and knee pain for two months and after a fall playing football yesterday, is limping when trying to walk.

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about the diagnosis of fibromyalgia in a woman with persistent, widespread joint pains with normal investigation
- Clinical Examination and Procedural Skills (CEPS) on a swollen knee joint
- COT about a patient who has been started on methotrexate by a specialist for rheumatoid arthritis and the need for blood test monitoring in primary care.

Neurodevelopmental disorders, intellectual and social disability

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of people with neurodevelopmental disorders, intellectual disability, and social/adaptive problems, by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

In this Topic Guide, the term 'intellectual disability' is used, for brevity, to cover neurodevelopmental disorders and intellectual disability; however, many elements of the sections below also apply to those with social and adaptive difficulties.

The role of the GP in the care of people with neurodevelopmental disorders, intellectual and social disability

Intellectual disability is associated with increased mortality and morbidity.

As a GP, your role is to:

- Recognise a range of associated psychological and physical conditions, some of which may profoundly affect a person's capacity for self-care, mobility or communication
- Identify, monitor and review all patients who have difficulties with communication, social relationships and managing their own affairs; this may require additional skills in diagnosis, examination and consultation, and an understanding of legislation and guidance on mental capacity
- Carry out annual health checks for people with intellectual disability
- Be aware of the effects of intellectual disability on the life history of the patient and family
- Signpost patients and their families or carers to appropriate resources, knowing when and where to seek specialist help
- Support people transitioning from paediatric to adult services
- Advocate for people with intellectual and social disabilities; promote fairness and equity in the community, including equal access to health care.

Emerging issues in the care of people with neurodevelopmental disorders, intellectual and social disability

- All mainstream services should offer patients with intellectual disabilities professional resources and facilities that are appropriate and tailored to their needs. In many instances, however, the GP may be the only significant medical practitioner in their lives.

- Whilst GPs need to address issues facing people with intellectual disability, this must also include awareness of the needs of people with social and adaptive problems, such as those with autism spectrum disorder, who may have a normal or high IQ. Difficulties affecting these individuals include poor social functioning, employment issues, mental health problems and lack of support from mainstream services (e.g. learning disability teams).
- GPs should recognise that empowering people with intellectual disabilities may involve challenging the values of the local community and society in general.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition, including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors (including socio-economic and cultural factors), screening and case finding
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring and end-of-life care
- Patient information and education including self-care
- Prognosis

Symptoms and signs

GPs should be able to recognise the following:

- Behavioural problems and possible underlying causes, such as difficulty coping with complex executive mental functions, pain, illness, or abuse
- Delayed or altered development in children
- Difficulties with communication, social relationships or managing daily affairs
- Difficulties processing sensory information
- Symptoms, signs and features of specific conditions that lead to intellectual and social disability (see 'Common and important conditions' below)
- Atypical presentation of psychiatric or physical illness because of sensory, communication and cognitive difficulties
- The concept of diagnostic overshadowing, i.e. when a person's presenting symptoms are attributed to the disability, rather than another, potentially treatable cause.

Common and important conditions

- Autism and autism spectrum disorder
- Dyspraxia
- Genetic causes of intellectual disability (e.g. Fragile X, Williams, Prader-Willi, Rett's, Down and Sturge-Weber syndromes, phenylketonuria, neurofibromatosis, tuberous sclerosis)

- Non-genetic causes of intellectual disability (e.g. fetal alcohol syndrome, brain injury, neglect)
- Common associated physical health disorders include (but are not limited to):
 - cardiovascular disease;
 - type 2 diabetes;
 - epilepsy;
 - musculoskeletal problems;
 - obesity;
 - oropharyngeal and gastrointestinal disorders;
 - respiratory disorders;
 - sleep disorders; and
 - visual, speech, hearing and mobility problems
- Common associated mental health problems (which may present differently from the general population) include:
 - Alzheimer's disease;
 - anxiety and depression;
 - bereavement reactions;
 - bipolar affective disorder;
 - schizophrenia; and
 - specific associations (e.g. autism spectrum disorder and ADHD are linked).

Examinations and procedures

- Tailored physical and mental state assessments in patients with intellectual disability and in those unable to describe or verbalise symptoms
- Screening tools for autism
- Screening tests to detect neurological and psychiatric problems such as dementia and depression.

Investigations

- Prenatal screening for genetically-linked conditions (e.g. Down syndrome)
- Appropriate referral for specialist assessment and diagnosis
- Appropriate investigation and follow-up of associated conditions.

Service issues

- Consultation skills to match the needs of service users (e.g. adapting language and consultation techniques, using advocates/carers with communication expertise, and other communication aids)
- Skills to discuss the genetic and heredity implications of a patient's disability with family or carers
- Reasonable adjustments to accommodate those with intellectual disability in primary care (e.g. recognising differences and sensitivities in sensory processing)
- Annual health checks:

- Identification or management of common associated physical conditions (e.g. epilepsy, obesity, diabetes), mental health conditions and specific associations (e.g. Down syndrome and hypothyroidism); appropriate referral and follow-up of these conditions, tailored to individual needs
- Health promotion including sexual health, contraception, cardiovascular disease risks, cancer screening and smoking cessation
- Safe prescribing and management of polypharmacy
- Use of practice and population-level data (e.g. registers) to improve care
- Secondary care and specialist services to diagnose, assess and support people with intellectual and social disabilities
- Methods of improving access to services and key workers. The role of your own patients in the evolution of tailored services
- Partnership-building with carers, respite care and voluntary and statutory agencies
- Support for adolescents transitioning from paediatric to adult care.

Additional important content

- Impact of intellectual disability on outcomes and management of associated conditions such as diabetes, asthma, schizophrenia, bipolar disorder and epilepsy
- Effects of intellectual disability on the ageing process, particularly in relation to the development and recognition of dementia
- Emotional and sexual needs of adults with intellectual and social disabilities, and how they may be expressed
- Impact on family dynamics, including parenting experiences, bereavement reactions (see also RCGP Topic Guide on *People at the End-of-Life*); physical, psychological and social morbidity in carers
- Risk-benefit conversations about childhood vaccinations (including controversies such as MMR and autism)
- Risk of physical, sexual, financial, institutional, discriminatory and emotional abuse, including negative responses of the community in the area around communal homes ('hate crimes')
- Safeguarding of vulnerable adults and children and the ethics of caring for people with intellectual disability (including risks to carers)
- Key recommendations from policy reports on quality of care for people with intellectual disability (e.g. reports referring to Winterbourne View hospital)
- Key guidance (e.g. NICE, SIGN, GMC guidance on consent, capacity, and confidentiality)
- Mental capacity assessment and associated legislation (Mental Capacity Act 2005 in England and Wales, common law in Northern Ireland, and the Adults with Incapacity (Scotland) Act 2000). Implications for treatment consent and screening programmes
- Legislation around Power of Attorney, advanced directives and DNAR notices; its relevance to the needs of people with intellectual disability
- Other relevant legislation (e.g. Equality Act 2010, Autism Act 2009)
- Equal rights of all citizens to health care, health information and health promotion.

Case discussion

Amy is a 41-year-old woman who lives in a residential home supported by staff, some of whom are permanent, and some of whom are employed temporarily by an agency. She has moderate intellectual disability and attends a local training centre five days each week. Her parents live near the residential home and visit her regularly; every other weekend she returns home.

The staff bring her to see you saying that recently her behaviour has changed. She is accompanied by a carer who has looked after her for years and relates a detailed history, together with her concerns:

- Amy has become aggressive, especially at meal times. During a meal with the other residents she can lash out and hit a member of staff or someone sitting next to her
- Her appetite has decreased and there is concern she has lost weight
- Whereas before she used to be the first ready to go to the training centre every morning, she is now rarely ready and needs help with dressing before she goes
- She used to recount to her parents what she had made and done each day but now remains quiet when they visit.

You ask about her general health and the staff tell you that:

- Amy frequently wets herself
- Her periods are no problem now, because she has not had one for seven months
- Her sleep is disturbed, and she wanders from her room at least once each night
- Her bowels open every day as before, but she has become incontinent of faeces.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are my beliefs and assumptions about intellectual disability? Might they impact on my interaction with Amy and her carer?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What does patient autonomy mean for this patient? How would I react to this consultation if an adult without intellectual disability had presented with the same behaviour problems?

	What social, legal and ethical factors are important when considering Amy's ability to make decisions about her care?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	What are the difficulties in obtaining a history of behaviour change in an adult with intellectual disability? How might I optimise communication with Amy (e.g. consultation skills, communication aids)? How might communicating with Amy's carer affect the doctor-patient relationship?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	How else could I obtain further information? What further investigations are needed? What bedside tests might be helpful?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What physical examinations would be appropriate in this case? What issues should I take into account before conducting a physical examination? What screening tools might I use to assess Amy's mental health?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What factors could explain the changes to Amy's behaviour and general health? What are my differential diagnoses and how could I explore them?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What drug- and non-drug interventions are available to help manage challenging behaviour in people with intellectual disabilities? Are there any gaps in Amy's care that need addressing? How will I follow up this consultation?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	What is the legal situation of an adult with intellectual disability residing in a supported home whose parents visit at least weekly? What do I know about safeguarding adults? What safeguarding issues do I need to explore in this case? How does the practice co-ordinate health promotion for patients living in residential care?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care.	Who are the other members of this patient's care team of which I am a member?

<p>It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>How do the different people and agencies involved in Amy's care communicate with each other?</p> <p>Have all clinicians, carers and support staff received appropriate training about intellectual disability and autism?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What are the difficulties of getting research data about the management of patients with intellectual disability?</p> <p>What evidence base underlies the use of annual health checks in people with intellectual disability?</p> <p>How much do I know about specialist support services (e.g. behavioural support teams; psychiatric or neurological assessment) and their availability in my area?</p> <p>What local or national guidelines (e.g. NICE, SIGN) are there about intellectual disability?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>How can a practice prepare for acute episodes of illness in adults with intellectual disability?</p> <p>How could my practice environment impact on the care provided to people with intellectual disability (e.g. access, atmosphere in the waiting area, measures taken to compensate for sensory impairment)?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>What does the bio-psycho-social model mean for patients with intellectual disability?</p>
<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What community resources (e.g. residential facilities, daytime activities, support groups, advocacy) are available to this patient in my practice area, including those provided by the voluntary sector?</p>

How to learn this area of practice

Work-based learning

In general practice, GP specialty trainees should take the opportunity to gain a better understanding of patients who are looked after in partnership with the specialist team and other agencies. You should also actively assist in the annual health checks.

You may also wish to spend time with your local intellectual disability specialist and attend specialist clinics to gain a better understanding of the care of patients with intellectual disability.

Self-directed learning

The care of people with intellectual disability is an excellent subject for discussion with your GP trainer and in groups with other specialty trainees. Additionally, discussing issues with patients and carers themselves will help you gain valuable insights into the health and social care needs of those with intellectual disability. Your local education providers will also have a variety of learning events that you can attend if you wish to learn more.

The RCGP website has a specific section on intellectual disability including downloadable material to support annual health checks. www.rcgp.org.uk/learningdisabilities/

You can find an e-Learning module(s) relevant to this topic guide at *e-Learning for Healthcare*. e-lfh.org.uk

The RCGP also has a page with resources on autism and ASD. <https://www.rcgp.org.uk/clinical-and-research/resources/a-to-z-clinical-resources/autistic-spectrum-disorder.aspx>

Intellectual disability resources in the online learning environment (OLE) include a course on autism in general practice. <http://elearning.rcgp.org.uk/>

Learning with other healthcare professionals

The care of people with neurodevelopmental disorders, intellectual and social disabilities is a multi-agency activity that involves the patient, his or her carers and professionals from health and social care. Your learning with other professionals is, therefore, very important to gain a better understanding of their roles and how best care may be delivered. You may wish to attend training or teaching sessions with specialist trainees in neurodevelopmental disorders and intellectual disability.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Increased risks of physical disease in Down syndrome
- Genetic causes such as Fragile X
- Statutory legislation for vulnerable adults.

Clinical Skills Assessment (CSA)

- Young woman with mild intellectual disability requests contraceptive advice
- Phone call: Carer wants to discuss differential diagnoses and possible management strategies for a young man with autism and behavioural issues who has recently developed sudden jerky movements
- Woman with moderate intellectual disability is brought to the surgery because she is limping and reluctant to weight-bear. Her medication includes Depo-Provera and sodium valproate.

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about the communication skills required to teach a patient with intellectual disability to use an inhaler
- Log entry about a child with autism where liaising with the child health team is required to get a statutory statement for school
- Case discussion on a couple struggling to cope with caring for the husband's middle-aged sister who has a brain injury and lives with them.

Neurology

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to neurology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in the care of people with neurological problems

As a GP, your role is to:

- Recognise that neurological conditions are common causes of serious disability and have a major, but often unrecognised, impact on health and social services
- Adopt approaches to assess and manage common but non-specific presentations such as headache, which can present diagnostic challenges and may have serious consequences if misdiagnosed. Managing the associated uncertainty should be carefully balanced with cost effective use of resources
- Understand that, increasingly, care for patients with long term neurological disease is coordinated in primary care with access to specialist clinical networks. GPs have to deal with disability, comorbidity (which includes depression), and inequalities in available resources
- Diagnose acute neurological emergencies, cognitive difficulties, and epilepsy, which will usually present in primary care.

Emerging issues in the care of people with neurological problems

- Dementia and cognitive loss are a major challenge to health services and to providing holistic primary care
- Improved access to specialist care and investigations is needed to avoid unnecessary hospital admission and reduce length of stay; follow-up and monitoring are likely to remain a primary role for the GP
- Improving the physical, psychological and social care of patients with epilepsy remains a challenge.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Cognitive impairment such as memory loss, delirium and dementia
- Collapse
- Disturbance of smell and taste
- Dizziness
- Features differentiating between upper and lower motor neurone function
- Movement disturbances such as athetosis, chorea, tremor
- Neuralgic and neuropathic pain
- Nystagmus and symptoms/signs of cerebellar and vestibular dysfunction
- Seizures and convulsions
- Sensory and motor symptoms: weakness (e.g. foot drop), spasticity, paraesthesia
- Signs of raised intracranial pressure
- Speech and language deficits
- Visual problems such as diplopia, ptosis, pupillary abnormalities and visual field defects.

Examinations and procedures

- Assessment of capacity
- Counselling and investigating people with a family history of genetic neurological disease
- Fundoscopy
- Targeted central and peripheral nervous system examination including testing of peripheral nerve and root symptoms and signs (e.g. dermatomes, reflexes, sensory and motor testing) and tests of cranial nerve function
- Tests of cognition and interpretation in relation to memory loss, dementia, delirium and associated diseases
- Visual assessment (e.g. visual fields).

Common and important conditions

- Acute confusional states or coma with underlying causes such as metabolic, infective, or drug-induced
- Autonomic neuropathies such as diabetic, drug induced, metabolic, multi-system atrophy
- Causes and risk factors for recurrent falls
- Cerebellar disorders including tumours, demyelination such as multiple sclerosis and inherited such as Friedrich's ataxia
- Chronic fatigue syndrome
- Complex regional pain syndrome
- Cranial nerve disease e.g. Bell's palsy, trigeminal neuralgia, bulbar palsy
- Dementia e.g. Alzheimer's, vascular, Lewy body, Pick's disease, normal pressure hydrocephalus, other causes of memory loss and confusion
- Epilepsy including generalised and focal seizures, febrile convulsions and other causes of seizures (such as hypoglycaemia, alcohol and drugs)
- Falls, their causes and risk factors
- Head injuries with or without loss of consciousness, concussion and more serious cranial or intracranial injuries, and relevant long-term care with brain injuries including secondary epilepsy and behavioural problems
- Headaches including tension, migraine, cluster, raised intracranial pressure including idiopathic intracranial hypertension
- Infections such as meningitis, encephalitis, arachnoiditis
- Inherited neurological diseases e.g. Huntington's disease, Charcot-Marie-Tooth, myotonic dystrophy, neurofibromatosis
- Intracranial haemorrhage including subarachnoid, subdural and extradural and thrombosis such as sinus thromboses, congenital aneurysms
- Motor neurone disease including progressive bulbar palsy and muscular atrophy
- Movement disorders including tremor and gait problems including athetosis, chorea, tardive dyskinesia, dystonia, tics. Underlying causes such as Sydenham's chorea, Huntington's disease, drug-induced, parkinsonism
- Multiple sclerosis and other demyelinating disorders such as transverse myelitis
- Muscle disorders such as muscular dystrophy, myasthenia gravis and associated syndromes
- Parkinson's disease and parkinsonism secondary to other causes such as drugs
- Sensory and/or motor disturbances (peripheral nerve problems) including mono- and poly-neuropathies such as nerve compression and palsies, Guillain-Barré syndrome
- Speech disorders including stroke, cerebellar disease, cerebral palsy, motor neurone disease
- Spinal cord disorders such as root and cord compression, cauda equina syndrome, spinal stenosis, syringomyelia. Metastatic cord compression in at-risk patients
- Spinal injuries causing paralysis and relevant care of tetra- and paraplegic patients including bowel and bladder care, potential complications such as pressure sores, autonomic dysfunction, aids to daily living and mobility
- Stroke including transient ischaemic attacks, with underlying causes such as cardiac arrhythmias, arterial disease, thrombophilia
- Tumours of the brain and peripheral nervous system such as meningiomas, glioblastomas, astrocytomas, neurofibromatosis, secondary metastases.

Service issues

- Timely review and ongoing support of patients discharged from secondary care services
- Sources of help and support in the local community for people with neurological disabilities
- Structured care planning, new technologies to access and deliver care, business and financial management skills
- Service reconfiguration, such as access to and quality of neuro-rehabilitation and reablement, including return to work; supporting people to manage their neurological condition to avoid crisis; co-ordinated pain management services.
- Strategic partnerships for neurological health, involving local authorities, third sector providers and charitable organisations
- National policy documents and patient information about many neurological disorders.

Additional important content

- Appropriate advice regarding epilepsy medication including drug interactions, side effects, and contraceptive and pregnancy advice
- Appropriate further investigations such as CT, MRI scans, nerve conduction studies, lumbar puncture
- Indications for referral to a neurologist for chronic conditions that require ongoing specialist management and conditions that require early treatment to avoid permanent deficit
- Indications for referral of people with other neurological emergencies (e.g. spinal cord compression, cauda equina)
- Management of the acute presentation of meningitis and meningococcal septicaemia and people presenting with collapse, loss of consciousness or coma
- The effect of neurological conditions on patients' working lives and the potential impact on the family's social and economic well-being
- Understanding of Standards on Fitness to Drive.

Case discussion

Mr Trevor Scott, a 62-year-old manager in a haulage company, presents with a history of increasing difficulty walking, loss of energy and a noticeable tremor at rest. His speech has become less distinct and he sleeps poorly.

Clinically, you strongly suspect he has Parkinson's Disease. He has no other relevant medical history other than antihypertensive treatment and well-controlled blood pressure.

He is married with a grown-up family who now live away.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How confident do I feel in my ability to take responsibility for a diagnosis that will have significant long-term implications for this patient? What are my initial priorities for Mr Scott's immediate safety and well-being, and that of the public?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What will I tell Mr Scott about my suspicions when I have not yet established a diagnosis? How do I balance honesty and transparency with provoking uncertainty and distress for the patient? How do I advise him about his work? What if he is resistant to my advice about informing the DVLA?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	What explanation of the problem will I give Mr Scott? What are the possible reactions I could anticipate to sensitive issues I need to discuss? How will I handle this consultation? What possible communication difficulties might I encounter?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What are the essential details in history and examination that will clarify the diagnosis? What could be the differential diagnosis?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What clinical signs would I expect to find and how do I assess their impact or significance? What mental state examination would be relevant?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	How do I assess the degree of urgency for intervention or referral?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	How will I manage this problem in general practice? Should all patients be referred for a neurological opinion? What is the role of and evidence-base for medication in this age group?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers	What are the wider implications of having Parkinson's Disease for this patient? What potential drug interactions might I expect if Mr Scott is started on medication?

appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	What can I do for him in the interim if there is a substantial wait for an opinion by a neurologist?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	What is the role of the CNS in providing support? What is the role of the specialist versus the generalist in managing Parkinson's disease? What can I do to coordinate a multi-professional approach to care?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	If I feel uncertain about managing this patient, how can I address this? What resources would I use? What issues might be addressed by a Quality Improvement process in my practice?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	Should there be a recall and review system for patients with Parkinson's Disease? What purpose would it serve? How might I disseminate my learning experience with the wider practice team?
Practising holistically, safeguarding and promoting health This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.	What precautions should I suggest in Mr Scott's everyday life? Who can help me to assure that I have provided a truly holistic assessment of his needs? What social and financial support is available to patients with long term conditions such as Parkinson's Disease?
Community orientation This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.	What is the role of charitable sector organisations in contributing to health care? How can primary care provide an alternative to scarce secondary care resources in a locality? How well is disability access supported in the community? What could be done to improve access?

How to learn this area of practice

Work-based learning

In general practice, patients present with various neurological problems at varying stages of the natural history. As a GP specialty trainee, critical professional discourse with your trainer will aid you in developing 'heuristics', i.e. strategies for problem-solving in the cases you see. Supervised practice will also give you greater confidence.

Following up cases during your training period allows you to observe for yourself the natural history of neurological diseases and how they develop. Such clinical experience during training will be supported by your GP trainer and experienced members of the primary healthcare team.

Some areas offer a specialist neurology outpatient service, based in primary care. This is a good opportunity for you to observe practice and be involved in the formal and informal conversations between GPs and specialists.

Many patients with chronic neurological conditions are resident in accommodation provided by voluntary organisations within the community. They usually have an appointed GP and it is important that you gain experience for caring for patients in this environment. This might require working with another practice if your training practice does not look after such a 'home'.

Most specialist care is provided in outpatient settings. These are ideal places for you to see concentrated groups of patients with neurological problems. They provide opportunities to observe many of the common conditions, as well as treatments for conditions such as migraine, epilepsy, stroke and Parkinson's disease. You should consider attending specialist neurology clinics during your general practice-based placements.

Self-directed learning

You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (www.e-lfh.org.uk).

Learning with other healthcare professionals

Neurological problems are often exemplars of teamwork and the multidisciplinary approach, so take the opportunity to understand the different roles with the many professional and non-professional groups who work as a team within both primary and secondary care. Physiotherapists, occupational therapists, specialist nurses and district nurses, in particular, have important expertise in the management of neurological disease and rehabilitation. You will also find that specific case conferences are often held to organise and focus efforts in the provision of care.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Investigation of possible multiple sclerosis
- Use of appropriate medication for Parkinson's disease
- Differential diagnosis of paraesthesia.

Clinical Skills Assessment (CSA)

- Patient brings a letter from a hospital A&E documenting a witnessed epileptic fit while he was on holiday
- Man with recurrent headaches which are now daily and not responding to simple analgesia
- Woman developed a weak and clumsy hand last night, dropping her book, but has no symptoms this morning. Examination expected.

Workplace-based Assessment (WPBA)

- Case Discussion on organising a social care package for an elderly woman with rapidly deteriorating mobility and frequent falls
- Clinical Examination and Procedural Skills (CEPS) on a focussed neurological examination for a man who is concerned that he has a brain tumour although the symptoms are more likely to be migrainous
- Log entry about a man who is diagnosed with motor neurone disease after presenting with dysphagia.

Population Health: Promoting Health and Preventing Disease

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to population health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources, including: “*Smoking, Alcohol and Substance Misuse*”, “*Long-term conditions including cancer*” and “*Metabolic problems and endocrinology*.”

The role of the GP in promoting health and preventing disease

The defining role of the GP is enacted in the consultation with the patient. However, GPs also have an essential role in the health of communities. Optimising the public's health requires co-ordination across three areas: health improvement, health protection, and health services.

As a GP, your role is to:

- Take part in all three of these areas, for example by promoting healthy living, delivering screening and immunisation programmes, and using resources and services appropriately
- Understand the social determinants of health, from pre-birth to old age
- Assess the needs of local population groups
- Advocate for measures that promote good health in populations as well as individuals
- Address health inequalities
- Assess and communicate risk.

Emerging issues in promoting health and preventing disease

Doctors were historically trained to diagnose and manage disease in individuals, rather than promote health in populations. The modern concept of health does not fit this traditional disease model, and GPs will need to keep up to date with a growing number of population health issues—for example, health inequalities, non-communicable diseases (NCDs), health service reorganisation, new models of healthcare delivery, sustainable healthcare, and climate change.

As the world we practice in becomes increasingly interconnected and interdependent, the need to consider the wider environment, including global issues, also becomes important. You should understand the impact of globalisation on health and the basic principles of global health, many of which will be relevant to your daily practice; for example, local and global policies that effect population health (e.g. in relation to tobacco, obesity and alcohol), the term ‘universal health coverage’ as defined by the World Health Organisation, and new infectious diseases (see RCGP Topic Guide *Infectious disease and travel health*).

Knowledge and skills guide

Consider the following areas within the context of primary care:

Health improvement

- The concepts of 'health' and 'wellbeing'³²
- The multiple determinants of health³³
- The relationship between social determinants of health and health inequalities³⁴
- Socio-economic, political and cultural factors affecting people's lifestyle choices
- The impact on health of factors such as alcohol and substance misuse, poor diet, smoking, inadequate exercise and risky sexual behaviour, including in specific populations such as pregnant women, people with mental ill health, and other vulnerable groups
- Approaches to behaviour change and their relevance to health promotion and self-care
- Actions to address lifestyle factors that affect health (e.g. nutrition, sleep, physical activity) and implement behaviour change
- Pharmacological approaches to addressing lifestyle risk factors (e.g. weight management medications, treatments for alcoholism etc.)
- Clinical, social, and environmental risk factors in healthy individuals for a range of common/important conditions (e.g. cancer, heart disease, diabetes, falls)
- Doctor-patient partnership in conversations relating to self-care
- Effects of an individual's health behaviours on their wider social network
- Ethical issues around prevention, pre-symptomatic testing, therapy in asymptomatic individuals, lifestyle choices, and tensions between individual and community needs
- Risk factors and safeguarding for different patient groups (e.g. the frail elderly, children at risk of accidents, and people at risk of abuse including at home, in institutions etc.).

Health protection

- Disease prevention programmes for common and important communicable and non-communicable diseases
- NHS screening and immunisation programmes
- Health surveillance systems that involve GPs (e.g. RCGP Weekly Returns Service)
- Notifiable diseases and the role of the Health Protection Agency
- Risk-benefit conversations in relation to health protection, (e.g. child immunisation)
- Health benefits of being in work
- Occupational hazards and risk factors (e.g. occupational cancers, respiratory diseases, musculoskeletal disorders)
- Return to work and rehabilitation after illness or accident
- Fitness for work certification and guidance on its use

³² Blaxter M. *Health (2nd edn)* Polity, 2010 www.polity.co.uk/keyconcepts/blaxter-health.asp

³³ Dahlgren and Whitehead's model of the social determinants of health, e.g. <http://jech.bmj.com/content/64/4/284.full>

³⁴ Key publications on health inequalities include: Acheson D. *Independent Inquiry into Inequalities in Health* London: HMSO, 1998; Black D (Chair of working group). *Inequalities in Health* London: DHSS, 1980; Marmot Review. *Fair Society, Healthy Lives. Strategic Review of Health Inequalities*; Tudor Hart J. *New Kind of Doctor* London: Merlin Press, 1988

- Support and encouragement of disabled patients in the workplace
- Roles of other health professionals (e.g. occupational health staff, physiotherapists and counsellors) in managing work and health issues.

Service issues

- Resource allocation and prioritisation in healthcare, including legal responsibilities for care provision
- Ways of implementing and evaluating locally agreed health programmes (e.g. exercise on prescription, alcohol and substance misuse, smoking cessation, psychological therapies)
- Health needs assessment of local populations and sub-groups (e.g. working families, 'sedentary' children, smokers, pregnant women, the elderly, those living in poverty, homeless people)
- Audit and clinical governance
- Role of the GP in service redesign and commissioning
- Structure of health services in the UK
- Role of public health organisations in the UK
- Role of third sector, voluntary, and non-governmental organisations in population health
- Effect on health of government policies (e.g. housing, environment, infrastructure, taxation, tobacco control).

Evidence and epidemiology (see also Topic Guide *Evidence based practice, research and sharing knowledge*)

- The scientific discipline applied to healthy people as well as to those who are sick
- The evidence base for and against interventions in healthy people, compared with the evidence for and against treatments in those who are sick
- Risks and benefits of specific screening programmes for individuals and groups
- Concept of the hierarchy of evidence in relation to patients requesting Interventions Not Normally Funded (INNF)
- Sources of routinely available data about the health of local populations.

Additional important content

- The influence of ageing, dependency, multiple co-morbidities, and frailty on individual and population-level healthcare needs
- The health of minorities and marginalised populations (including but not limited to refugees, asylum seekers, institutionalised groups, sex workers, the homeless, travellers, undocumented migrants, and victims of trafficking and torture)
- Global factors affecting the health and wellbeing of individuals and populations (e.g. climate change, air quality and pollution, health systems, pandemics, conflict and migration (including migration of health workers))
- Global institutions with a health remit (e.g. World Health Organisation)
- The WHO global burden of disease
- Models of healthcare delivery and financing.

Case discussion

Anna, a 47-year-old self-employed cleaner, attends your surgery for a repeat blood pressure check following a pre-operative assessment for a laparoscopic cholecystectomy. She was told that her smoking and 'borderline' blood pressure meant that the health risks were too high for her to have her operation right now.

Anna is angry at the delay. She has been intermittently off work with episodes of biliary colic. She is dismissive of her blood pressure as it has 'never been high before'. She tells you that it was probably high because she is very worried about her family: her 25-year-old daughter Eva recently had her first cervical cancer screening test and was advised that she needs a colposcopy. Eva is reluctant to have this and is suffering from panic attacks when thinking about hospitals. To make matters worse, Anna's mother is becoming frail and her husband has started drinking heavily again – this was also a feature of their early relationship but had improved until he recently lost his job.

You note that Anna has a BMI of 33 and smokes 15 cigarettes per day. Today her clinic blood pressure is 158/94.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	Is Anna in a good state of health? Does she have a disease? How does Anna's attitude towards her own health affect my professional behaviour towards her? As Anna's GP, how important is it for me to role-model a healthy lifestyle?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What action should I take if Anna's daughter doesn't attend follow-up after her cervical screening test? How involved should I be in helping to resolve Anna's family problems; to what extent are they for her to resolve herself? Is Anna's smoking a lifestyle choice or an addiction requiring treatment?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	What techniques can I use to explore Anna's understanding and beliefs about her and her family's health? How do I secure Anna's commitment to long-term lifestyle changes?

	How do I ask about factors such as diet and alcohol intake in a way that will encourage her to be truthful?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What information do I need to reliably diagnose hypertension? How does Anna's health compare with that of the local population? How might I find the data needed to assess this? How do I identify groups with poor health within my practice population?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What is the correct way to measure blood pressure using a sphygmomanometer? What other examinations might be needed in the context of Anna's raised blood pressure? What bedside tests might I consider performing?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	How do I assess and make treatment recommendations based on Anna's cardiovascular risk? What differences might there be between my health promotion agenda and Anna's perspective on her health? How could I support Anna in deciding how to manage her stress?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What interventions do I know about that help with smoking cessation and weight reduction? What non-drug management options could Anna consider? What techniques can I use to help patients manage anxiety about hospital investigations/procedures? What interventions do I know about that help with weight reduction?

<p>Managing medical complexity</p> <p>This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.</p>	<p>How can structured care planning help to reduce risk and need for health services?</p> <p>What scope is there for a whole-family intervention to improve the health of Anna's family?</p> <p>What sources of support and advice could I offer to Anna in her role as a carer for other family members?</p>
<p>Working with colleagues and in teams</p> <p>This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.</p>	<p>How do GPs work with Public Health colleagues in managing the health of the population?</p> <p>Which other members of the primary health care team are involved in health promotion and disease prevention?</p> <p>Do the ethos and culture of my workplace encourage preventive care and health promotion? What are the factors that determine this?</p>
<p>Improving performance, learning and teaching</p> <p>This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.</p>	<p>What are the characteristics of a good screening programme?</p> <p>How effectively might lifestyle changes lower Anna's blood pressure?</p> <p>What local and national guidelines exist on obesity/malnutrition?</p> <p>What evidence-based population-level tobacco control measures do I know about (e.g. taxation, Framework Convention on Tobacco Control)?</p> <p>What Quality Improvement Project ideas might relate to a case like this?</p>
<p>Organisational management and leadership</p> <p>This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.</p>	<p>How do I use my leadership skills to enable Anna to improve her situation?</p> <p>How can I make changes to our practice's services to encourage self-care and healthy living?</p> <p>What role can I play in designing or redesigning services for population health and preventive care?</p>
<p>Practising holistically, safeguarding and promoting health</p> <p>This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.</p>	<p>How might Anna's social circumstances influence her uptake of services and health/lifestyle advice?</p> <p>Consider the disclosure that Anna's husband is drinking heavily again. What effect might this have on my management plan?</p>

	What do I know about Anna's social and ethnic background? Might this influence the consultation and clinical outcomes? If so, in what ways?
Community orientation This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable health care.	What additional local resources might I signpost Anna to? What is the role of a GP in population screening programmes? What is the role of the voluntary sector in the community where I practise? In the community where I practise, what are the factors that encourage or inhibit members of the community from supporting each other?

How to learn this area of practice

Work-based learning

All three elements of population health (health improvement, health protection and service improvement) can be learnt in a primary care setting, both inside and outside the practice. For example, as a GP trainee you should be involved in your practice's health promotion, prevention and screening activities, as part of the multi-professional healthcare team. You could also arrange to visit your local public health team, health protection unit or public health office (e.g. Public Health England or the equivalent organisation in the devolved nations) to meet public health specialists and discuss the wider population health agenda. You may also be able to help with particular projects or undertake formal attachments.

Most acute hospital boards have a public health strategy and action plan. While working in hospital placements you will find many opportunities to explore the public health agenda, particularly in the areas of screening (e.g. breast screening services) and infection control.

Self-directed learning

As a GP trainee you should have access to courses on public health issues provided locally as part of training programme activities or by postgraduate deaneries working with public health specialists and primary care organisations. The RCGP offers various e-Learning courses on population health topics, which can be found via its website. In addition it has partnered with Cancer Research UK to provide a series of learning resources, available here:

www.cancerresearchuk.org/health-professional/early-diagnosis-activities/cruk-rcgp-partnership

You can also find an e-Learning module(s) relevant to this Topic Guide at e-Learning for Healthcare (e-lfh.org.uk).

The Faculty of Public Health is the standard-setting body for specialists in public health. It is a joint faculty of the three Royal Colleges of Physicians of the United Kingdom (London, Edinburgh and Glasgow). The Public Health Textbook is an online resource which covers public health skills and competencies in relation to the Faculty Part A membership examination syllabus.

Public Health England is an Executive Agency of the Department of Health set up as part of the reorganisation of health services resulting from the Health and Social Care Act 2012. It took on the role of the Health Protection Agency, the National Treatment Agency for Substance Misuse and a number of other roles including leading screening programmes delivered by the NHS. Key public health issues and developments can be found on its website www.gov.uk/government/organisations/public-health-england

The UK Health and Safety Executive website is an excellent central resource on all aspects of health and safety in the workplace.

National and regional population health data are available at the NHS Digital (formerly HSCIC) website <https://digital.nhs.uk/> and also via <https://fingertips.phe.org.uk/>

Learning with other healthcare professionals

Many opportunities exist in primary care for you to be involved with nurses, health visitors and public health specialists, all of whom should be engaged in the practice's education and public health programmes. Learning with voluntary/third sector organisations, including those outside the health sector, may help you better understand the wider social determinants of health.

Additionally, you may wish to speak to health professionals or patients who have trained in or used another health system, in order to understand the similarities and differences compared to your own. You could then consider how good practice from other health systems could be applied to improve the care you deliver.

Structured learning

The RCGP has developed some resources on public health as part of the Centre for Commissioning. The Faculty of Public Health is developing certificate courses for healthcare professionals from any discipline who wish to acquire recognised knowledge in this area. Several universities also award post-graduate diplomas and Masters' degrees in public health.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Natural history of minor illnesses e.g. URTI
- Screening programmes
- Appropriate advice for self-care.

Clinical Skills Assessment (CSA)

- Overweight Asian man who smokes e-cigarettes attends for results of cardiovascular disease (CVD) assessment which show impaired fasting glycaemia
- Woman in early pregnancy wants to discuss routine antenatal screening and monitoring care programme, stating that she wants minimal intervention
- Middle-aged man, who is in temporary accommodation and not permanently registered with a practice, has COPD with frequent exacerbations due to poor medication compliance.

Workplace-based Assessment (WPBA)

- Log entry about the baby immunisation clinic
- Consultation Observation Tool (COT) on discussing the benefits/risks of having a PSA test
- Case discussion on the health beliefs of a patient who is convinced he has cancer.

Respiratory Health

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to respiratory health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources.

The role of the GP in respiratory health

Respiratory diseases are among the most common long-term conditions affecting patients in the UK. As a GP, your role is to:

- Recognise that the identification, assessment, diagnosis and treatment of most acute and chronic respiratory diseases are a primary care issue
- Consider how respiratory disease affects patients of all ages. It also brings specific challenges in the diagnosis and treatment of various groups including children, some occupational and ethnic groups, those with social and mental health challenges, and those nearing the end of their life
- Be aware of your role as a GP in promoting smoking cessation and offering treatment.

Emerging issues in respiratory health

A wide range of patients with respiratory problems are seen in primary care, which presents challenges for:

- **Diagnosis:** such as distinguishing common minor self-limiting conditions from less common but more serious conditions (for example, sepsis). Early diagnosis is a contributory factor to improving outcomes in conditions such as lung cancer. Awareness of the pros and cons of emerging diagnostic tools such as fractional exhaled nitric oxide (FeNO) in asthma.
- **Recognition:** conditions such as chronic obstructive airways disease are under-recognised and contribute significantly to seasonal admissions to secondary care
- **Patient education:** self-management of minor conditions and increasing treatment during exacerbations of chronic conditions such as asthma and chronic obstructive airways disease. The applicability of patient centred models of care such as the House of Care model and care planning
- **Chronic disease management:** such as managing recall systems for asthma and chronic obstructive airways disease, the effect on acute admissions and influenza vaccination
- **Smoking cessation:** the value of opportunistic and structured interventions in helping patients stopping smoking and the evolving role of e-cigarettes/vaping in addition to current

therapies. Ongoing research into the safety of e-cigarettes and their use for smoking cessation is underway. As a GP you should be aware of the latest evidence and guidance on e-cigarettes, and smoking cessation more generally, and use your clinical judgement on an individual patient basis

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Chest pain
- Clubbing
- Collapse
- Cough, acute and chronic
- Cyanosis
- Dyspnoea: acute and chronic
- Fever.
- General malaise including weight loss and fatigue.
- Haemoptysis
- Lymphadenopathy
- Pleural effusion
- Signs of respiratory distress in children (e.g. recession, nasal flaring)
- Stridor and hoarseness
- Tachypnoea
- Wheeze.

Common and important conditions

- Asthma: acute and chronic in children and adults
- Asthma-COPD overlap
- Bronchiectasis

- Chronic obstructive pulmonary disease
- Connective tissue diseases affecting the lung, such as rheumatoid arthritis, SLE and sarcoidosis
- Cough including haemoptysis, and non-respiratory causes such as GORD
- Cystic fibrosis
- Emphysema including α 1-antitrypsin deficiency
- Immunosuppression affecting the respiratory system including opportunistic infections such as TB, fungal and parasitic Lower respiratory tract infections (e.g. bronchiolitis, bronchitis, pertussis and pneumonia (of any cause), atypical pneumonias including Legionnaire's disease and tuberculosis), sepsis
- Lower respiratory tract infections
- Lung fibrosis and associated causes including adverse drug reactions
- Occupational respiratory diseases such as the pneumoconioses, asthma, extrinsic allergic alveolitis and asbestos related disease
- Pleural effusion causes including infection, connective tissue diseases and malignancies
- Pneumothorax including simple and tension
- Pulmonary embolism
- Respiratory failure and methods of ventilation such as CPAP for sleep apnoea
- Respiratory malignancies, including laryngeal, bronchial and pleural such as mesothelioma. Primary and secondary lung malignancies, and related para-neoplastic syndromes
- Stridor and hoarseness: differential diagnosis including assessment of urgency for investigation and management
- Upper respiratory tract infections including tonsillitis, peri-tonsillar abscess, epiglottitis, laryngitis, pharyngitis and tracheitis.

Examinations and procedures

- Appropriate focused clinical examination to identify respiratory disease (e.g. clubbing, lymphadenopathy, significance of measuring respiratory rate, chest exam, signs of sepsis)
- Specific procedures, such as peak expiratory flow rate measurement
- Demonstrate the correct use of a dry powdered and metered dose inhaler and check that a patient can use their device properly
- Administration of inhaled bronchodilators with spacer or nebuliser, including correct techniques.

Investigations

- Primary care investigations such as peak expiratory flow rates, spirometry, exhaled nitric oxide testing (FeNO), pulse oximetry, blood tests and sputum culture (including indications for, correct technique, interpretation of results, and factors affecting results).
- Disease scoring tools (e.g. CURB for community acquired pneumonia)
- Indications for chest-x-rays, CT and MRI scans, and bronchoscopy

Service issues

- Local and national guidelines to manage common respiratory diseases (asthma, COPD, lung cancer) in primary care

- Indications for the use of oxygen in emergency, acute and chronic management including domiciliary oxygen and use in palliative care
- Patients' understanding of prescribed inhaled medication, both routinely and in an emergency, including its appropriate use and technique
- Inhaler devices, including types of devices and their ease of use, prescribing, cost-effectiveness and patient's preference
- Support available to patients and their carers from health, social services and charities/voluntary sector organisations.

Additional important content

- History-taking key points with respect to specific respiratory diseases (e.g. in relation to occupation, smoking, 'red flag' symptoms, family history)
- The importance of lifestyle changes, particularly smoking cessation and pulmonary rehabilitation
- The impact of co-morbidity such as muscle wasting, osteoporosis, cardiovascular disease or mental health problems in people with long-term respiratory conditions such as asthma and COPD, and the effect of these on morbidity and mortality
- The potential for financial compensation for those diagnosed with mesothelioma and other occupational lung diseases. Appropriate signposting to specialist services, and appropriate death certification for these conditions.

Case discussion

Mr Davies is a 55-year-old man who first presented to you a year ago complaining of increasing breathlessness over the past year. Further discussion revealed repeated winter chest infections with mucopurulent sputum needing antibiotics. He is a smoker, having started smoking age 15. He usually smokes one pack of cigarettes per day. He is a self-employed plumber. His mother has COPD.

He has a BMI of 31. On the basis of an examination and investigations, you diagnosed chronic obstructive pulmonary disease (COPD) and prescribed appropriate inhaler devices. You also offered support to stop smoking, follow-up with the practice nurse, and a referral for pulmonary rehabilitation at the local community centre.

It is now the following winter and Mr Davies attends an emergency GP appointment. He is distressed, breathless, cyanosed and tachycardic, with an SpO₂ of 89%, having been unwell for the previous five days. Although he has stopped smoking his wife continues to do so. He tells you he didn't want to bother anyone and can't afford to take time off work. He'd hoped he could ride out this episode using more inhalers.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	What are my personal feelings about smoking-related illnesses and how do I ensure these don't adversely affect the care I provide?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	Is Mr Davies responsible for his own illness? What are the challenges facing me as a GP in delivering effective care in this case? How does patient autonomy influence my joint decision-making (considering occupation, smoking or illicit drug use, which affect respiratory illness and its treatment)?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	On what occasions in Mr Davies' case could his worries have been addressed, and by whom? What is the role of self-management in respiratory disease?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	What investigations are appropriate to diagnose COPD? How confident am I at interpreting spirometry? How do I grade the severity of symptoms/functionality?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What clinical skills do I need to assess different patients with respiratory disease including children, the elderly and those with mental health problems? What is the correct technique for recording a peak flow and for using a metered dose inhaler with spacer? How would I instruct my patient to apply these techniques? What are the signs of respiratory distress in a child?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	What elements of the primary care assessment and treatment of patients with respiratory disease are unique to this group of patients?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What management options are available for Mr Davies in the acute setting?

	What are the specific indications for the various treatments for COPD and how can I monitor their effectiveness?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	What are the common co-morbidities associated with respiratory disease? How do co-morbidities or systemic problems impact on respiratory illness or its treatment? What impact does the patient's lifestyle, ethnicity, education and occupation have on their respiratory health and their future treatment?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	Are there any local protocols for managing COPD? How are COPD patients looked after in my practice? What role do nurses and other PHCT members play in their management? What is the role of the generalist and the specialist in diagnosis and management?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	What is the evidence base for the early identification of patients with chronic lung disease and subsequent health education or therapeutic interventions? Do I know when to introduce additional treatment? How many unidentified patients with COPD are there in our practice? How might we identify such patients?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	What templates should I use during consultation with patients with asthma and COPD? How would I monitor quality of care for COPD patients?
Practising holistically, safeguarding and promoting health This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.	What is the impact of respiratory disease on patients, physically, psychologically and socially (including occupation and employability)? What impact does respiratory disease have on families? How do I assess suitability for smoking cessation options?

<p>Community orientation</p> <p>This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.</p>	<p>What is the impact of health and social inequality on respiratory disease prevalence, diagnosis, prognosis and treatment?</p> <p>What support services might be available to Mr Davies and his family?</p> <p>How relevant are social, ethnic and gender issues in the prevention and treatment of respiratory disease, in particular smoking and inhaler use?</p> <p>How does Mr Davies smoking impact on the services he needs, and where they are provided?</p>
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How to learn this area of practice

Work-based learning

As a GP specialty trainee, the principal component of your work-based learning around respiratory disease involves meeting, assessing and helping to manage patients with respiratory disease. Learning from the training team, and specifically from the respiratory lead GP and practice nurse, as well as colleagues within the practice is also important.

Specific learning around the performance and interpretation of lung function testing, as commonly performed in general practice, should reflect the needs and responsibilities of the generalist, and should cover:

- patient selection and preparation
- health and safety
- infection control
- equipment selection and calibration
- interpretation of results for validity and clinical patterns
- the role of bronchodilators in lung function testing
- the limits of lung function assessment in patient management, and the value of other available patient-related outcome measures.

With respect to patients with respiratory disease, a GP should be aware of the roles and responsibilities of the primary care team, in its widest sense, including community staff and secondary care outreach, charities and self-help groups, physiotherapists and exercise trainers. You should also look for opportunities to learn from local respiratory consultants, physiotherapists and multidisciplinary groups.

Self-directed learning

You can find e-Learning module(s) relevant to this Topic Guide at *e-Learning for Healthcare* (e-lfh.org.uk)

Other organisations offering education and support include: Asthma UK (www.asthma.org.uk), British Lung Foundation (www.blf.org.uk), British Society of Allergy and Clinical Immunology (www.bsaci.org), British Thoracic Society (www.brit-thoracic.org.uk), and the Primary Care Respiratory Society UK (www.pcrs-uk.org).

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Interpretation of spirometry results
- Symptoms of lung cancer
- Aetiology of community-acquired pneumonia.

Clinical Skills Assessment (CSA)

- Blind woman has recently been diagnosed with asthma and was prescribed salbutamol, but she is still symptomatic
- Carer requests a house visit to an elderly man who has a dry cough and become slightly confused over the past few days
- Man with COPD has been stable on three inhaled medications but is now complaining of increasing cough and dyspnoea. Examination expected.

Workplace-based Assessment (WPBA)

- Log entry about your involvement in the asthma clinic and the indications for the different asthma inhalers available
- Consultation Observation Tool (COT) about a woman with a persistent cough whose chest x-ray suggests sarcoidosis
- Audit on the use of high-dose steroid inhalers against current national guidelines.

Sexual Health

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to sexual health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources. There is particular overlap between this Topic Guide and ‘*Maternity and Reproductive health*’ and also ‘*Gynaecology and Breast Health*’.

The role of the GP in sexual health

Sexual health is concerned with enabling an individual to experience enjoyment of sexual activity without causing themselves or anyone else physical or mental harm. It is also concerned with contraception and sexually transmitted infections. As a GP, your role is to:

- Provide contraceptive services, sexual health screening, testing and treatment of sexually transmitted infections (STIs) and support partner contact tracing
- Be able to take a concise sexual history that enables risk assessment for STI, often in the context of patients who may not consider themselves to be at risk of STI
- Offer opportunistic sexual health promotion and risk reduction advice. Provide care which is non-judgmental and holistic recognizing the physical, psychological and social impact of good sexual health
- Be aware of the key legal precedents, guidelines, and ethical issues that influence sexual health care provision especially regarding patients under 16 years of age in relation to consent and confidentiality; and at all ages in relation to confidentiality, abortion, sexual assault, coercion and female genital mutilation (FGM)
- Recognize that gender, gender identity, gender dysphoria and sexual orientation are all different facets of a person's health and that issues relating to these may present in childhood, adolescence or adulthood and have a wide influence on wellbeing
- Provide care and support for women with unwanted pregnancy and for women requesting or having undergone termination of pregnancy.

Emerging issues in sexual health

- Teenage pregnancy rates in the UK are falling but remain the highest in Western Europe
- People who experience gender dysphoria, including children and young people, may increasingly present to GPs
- The incidence of STIs is changing (e.g. reduced incidence of genital warts, increased rates of syphilis and antibiotic resistant gonorrhoea)
- There is debate surrounding the effectiveness of the chlamydia screening programme, and HIV screening in high prevalence areas

- HIV continues to be one of the most important communicable diseases in the UK. General practice has a role in caring for patients with HIV and assessing the risk of having undiagnosed HIV. PrEP (Pre-Exposure Prophylaxis) is likely to become increasingly used to protect high risk individuals from becoming HIV positive
- The prevention, recognition and reporting of female genital mutilation and the legal duties relating to this, as well as the subsequent psychological, sexual and pregnancy issues that may arise, should be understood by GPs.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

- Abnormal vaginal bleeding suggestive of infection including post-coital and intermenstrual bleeding
- Dyspareunia
- Dysuria
- Erectile dysfunction and premature ejaculation
- Feelings and behaviours related to Gender dysphoria
- Genital ulcers and warts
- Pelvic and abdominal pain
- Penile discharge
- Psychosexual dysfunction including anorgasmia, loss of arousal, loss of libido and vaginismus
- Systemic manifestations of STIs (for example, reactive arthritis, rash)
- Vaginal discharge
- Vulval pain or irritation.

Common and important conditions

Infections

- Bacterial vaginosis
- Candida

- Infestations (including pubic lice and scabies)
- Pelvic Inflammatory Disease (PID)
- Sexually Transmitted Infections including chlamydia, genital herpes simplex, genital warts, gonorrhoea, human papilloma virus (HPV), sexually transmitted blood borne viruses (HIV, Hepatitis B and (rarely) Hepatitis C), syphilis and trichomonas.

Sexual dysfunction

- Female sexual dysfunction, including anorgasmia, dyspareunia, hypo-oestrogenism, loss of libido and vaginismus
- Male sexual dysfunction, including erectile dysfunction due to organic causes (such as diabetes, drug induced (including smoking), neurological disease and vascular disease) and psychological causes. Premature ejaculation.

Other

- Female genital mutilation (FGM) including practical and legal aspects, reporting mechanisms and protecting girls at risk of FGM
- Gender identity, dysphoria and reassignment including children and young people
- Genito-urinary skin disorders including lichen sclerosus, balanitis
- Provision of, and access to, pregnancy termination services (including variation in this between the four nations of the United Kingdom)
- Sexual abuse and assault (both adult and child) including care of patients who have been abused and indicators of assault (including STI in children). Child sexual exploitation
- Unwanted pregnancy and termination of pregnancy (including legal and ethical aspects).

Examinations and procedures

- Male and female genital examination (including bimanual pelvic examination and speculum examination)
- pH testing for bacterial vaginosis
- Vaginal swabs: use of 'self-taken' samples (vulvo-vaginal and urine) for chlamydia and gonorrhoea; indications for clinician-taken swabs.

Investigations

- Investigation of STI: swabs, urine and blood tests (including timing of testing, practicalities and interpretations of results).

Other important content

- Empirical management of vaginal discharge
- Female contraception including:
 - hormonal contraception: combined oral/patch/ring contraception, progesterone only methods including oral, depot injection, sub-dermal implant, intrauterine systems (IUS)
 - non-hormonal contraception: cap, diaphragm, female condom, intrauterine device (IUD)
 - long acting reversible contraception (LARC)
 - sterilisation
 - emergency contraception
- Male contraception including condoms, spermicides, vasectomy

- Methods of natural family planning
- Prescribing for patients taking HIV medications from specialist clinics, including drug interactions
- Safe sex advice, sexual health promotion and risk reduction (adults and young people)
- Screening for sexually transmitted infection including chlamydia and HIV.

Service issues

- Access to Gender Identity Clinics and care of patients with gender dysphoria in primary care, including sensitive record keeping and appropriate use of titles and personal pronouns
- Access to sexual health services for individuals with learning or physical disability or with different communication needs
- Awareness of local prevalence of HIV and blood borne viruses (BBV), including some awareness of overseas prevalence as relevant to international patients
- Consent and confidentiality in respect of under 16s accessing sexual health services (Fraser Guidelines)
- HPV vaccination programme
- Local and national strategies to reduce teenage and unplanned pregnancies
- Local service arrangements for:
 - Provision of LARC services and sterilization procedures
 - Access to emergency contraception
 - STI testing and access to GUM clinics
 - Patients presenting following sexual assault
- Provision of sexual health promotion services, including
 - health promotion and 'safe sex' advice particularly in higher risk groups (such as young people, men who have sex with men (MSM) and sex workers); and
 - Hepatitis A and B vaccinations for MSM and the use of Pre-Exposure Prophylaxis (PrEP)
- Screening for domestic and intimate partner violence in the context of sexual health consultations.

Case discussion

You work in an inner-city London practice. The first patient of the morning is Precious a 26-year-old who arrived in the UK two years ago as a refugee from Sudan. You note she attends infrequently and has had two early pregnancy terminations since registering with you. She has come to see you today because she has missed her last period and is requesting another abortion. She was last seen six months ago when she was given a three-month supply of the combined oral contraceptive pill by one of your colleagues.

You try to explore her history but she seems reluctant to answer you and seems to be avoiding eye contact. There is no evidence of any previous STI testing or cervical screening.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practice > This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do I feel about repeated requests from a woman for termination of pregnancy? How would my attitude towards Precious be influenced if I learned she was a sex worker? Or a victim of sexual abuse?
Maintaining an ethical approach > This addresses the importance of practising ethically, with integrity and a respect for diversity.	Do I have any personal ethical objections to dealing with sexual health matters such as abortion, certain methods of contraception and methods of fertility treatment? How do I ensure these objections don't adversely affect patient care? Am I aware of the GMC guidance on Personal Beliefs and Medical Practice? What are the legal issues regarding an abortion request?
Communication and consultation > This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	How might I explore Precious's sexual history? How do I ask about the possibility of FGM? How does Precious feel about her unwanted pregnancy a abortion request? She is reluctant to answer questions – how do I determine if there are issues she feels unable to discuss today?

	How do I explore why Precious did not continue with her contraceptive pill?
Data gathering and interpretation > This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	How do I confirm she is pregnant and at what gestation? How can I investigate for HIV or other sexually transmitted infections?
Clinical Examination and Procedural Skills > This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	What clinical examinations and investigations might be appropriate in this situation?
Making decisions > This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	How do I determine safely if Precious is at immediate risk of harm (e.g. domestic violence)? How do I prioritise the various issues raised by this consultation?
Clinical management > This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	What might indicate that Precious is being abused/coerced into sex-work? Is Precious at risk of any other health problems? What counselling options are available locally for women who can't decide whether to proceed with a pregnancy or have a termination? What conflicts of interest might these counselling services have?
Managing medical complexity > This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	What health promotion opportunities does this consultation present? How do I prevent another unwanted pregnancy in the future? How do I address STI testing, HIV testing, cervical screening, future contraception and any underlying psychosocial/sexual issues with this patient?
Working with colleagues and in teams > This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	What other resources/services/healthcare professionals could I involve in the management of this case? Do local pregnancy termination services provide post-termination contraception or STI screening?

Improving performance, learning and teaching > This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service development, quality improvement and research activity.	What is my plan for keeping up to date with current management of STIs and contraceptive choices? What are the current local and national priorities in the area of sexual health?
Organisational management and leadership > This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	How do I record sensitive information in the notes? What is the local referral pathway for women requesting an abortion?
Practising holistically, safeguarding and promoting health > This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.	Am I aware of the particular health needs of refugees and asylum seekers? Are there any local services specifically supporting these population groups? What might be the psychological impact of repeated abortion? How do we make our practices more welcoming for either gender to discuss their sexual health problems?
Community orientation > This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.	If I was looking to evaluate and develop my local sexual health services how would I begin to do this? Does this case highlight an unmet need in the local community or health service? Am I adequately informed on the issue of modern slavery?

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How to learn this area of practice

Work-based learning

Primary care is the best place for a GP specialty trainee to learn how to manage sexual health because it is where the vast majority of patients present. Patients will present their concerns and symptoms at varying stages of the natural history. Experience gained under the supervision of an experienced GP, with an opportunity to discuss and reflect on cases, will build expertise in this area.

Some GP specialty training programmes contain placements of varying length with sexual health or family planning clinics. These placements will help you to see concentrated groups of patients and

learn about sexual health issues involving men and women, including transgender patients; become proficient in history taking and clinical examination in this field; and to become familiar with the management of common problems. For trainees without a dedicated sexual health placement it would be worthwhile to arrange to attend some sessions at one of these clinics.

Self-directed learning

You can find e-Learning module(s) relevant to this topic guide at *e-Learning for healthcare* ([e-lfh.org.uk](http://elfh.org.uk)). The RCGP also has sexual health e-Learning modules www.elearning.rcgp.org.uk

➤ Many postgraduate deaneries provide their own courses on sexual health problems. Other providers include BASHH (British Association for Sexual Health and HIV) www.bashh.org (who offer the Sexually Transmitted Infection Foundation Course – STIF) and the FSRH (Faculty of Sexual and Reproductive Healthcare) www.fsrh.org. The FSRH also provide a comprehensive course consisting of e-Learning modules, small group work and practical training, leading to an award of the Diploma of the Faculty of Sexual and Reproductive Healthcare (DFSRH). Interested trainees can also obtain letters of competence in subdermal implants (LoC SDI) and intrauterine techniques (LoC IUT). Both BASHH and the FSRH have clinical guidance available on their websites.

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Learning with other healthcare professionals

➤ As a specialty trainee it is essential that you understand the variety of services provided in the community. Joint learning sessions with practice nurses and specialist colleagues in sexual health clinics will help you gain a greater understanding of both the services provided locally and the need for cross-agency communication and partnership working.

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Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Appropriate use of LARC for different scenarios
- Investigation of vaginal discharge
- HIV exposure prophylaxis.

Clinical Skills Assessment (CSA)

- Phone call: Father wants advice on how to react to his 12-year-old son who has doubts about his gender identity
- 25-year-old man attends with unilateral swollen painful testis
- 31-year-old mother of two children requests help with low libido.

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about contraception for a teenager who has infant twins and is having unprotected intercourse
- Observed Clinical Examination and Procedural Skills (CEPS) on genital examinations for men and women
- Learning log on health promotion in a patient under 25 years of age for STIs.

Smoking, Alcohol and Substance Misuse

About this Topic Guide

This Topic Guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to smoking, alcohol and substance misuse by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development, including guidance on the knowledge relevant to this area of general practice.

Each Topic Guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other Topic Guides and educational resources. Smoking affects almost all the disease areas for which GPs are responsible, and knowledge about specific body systems and diseases affected by smoking is covered in the relevant Topic Guides (e.g. see Cardiovascular, Respiratory). The sections below relate more to the general use of tobacco—in particular, effective smoking cessation treatment.

The knowledge and skills required to manage smoking, and those for alcohol and substance misuse, are listed in separate sections for clarity, although they frequently overlap. 'Service issues' and 'Additional important content' remain common to both areas.

The role of the GP in smoking, alcohol and substance misuse

All GPs have a responsibility to provide both holistic general medical care and specific treatment for people who smoke or have alcohol or substance misuse problems. As a GP, your role is to:

- Recognise that smoking, alcohol and substance misuse are common problems in the community and understand their relationship to disease and premature death
- Understand that harmful use of alcohol and other substances is often unrecognised and can take a range of forms (including excessive use, binges, and dependency)
- Identify and offer interventions, including effective advice and treatment, to people who smoke or misuse alcohol or substances
- Refer to and develop partnerships with wider local services
- Recognise and manage medical consequences of smoking, alcohol and substance misuse
- Be aware of wider social issues, including the need to protect children and family members from the potential impact of smoking, alcohol or substance misuse, and respond to any safeguarding concerns
- Appreciate that helping people to stop smoking or overcome alcohol and substance misuse, whilst challenging at times, can be very rewarding for the doctor and life changing for the patient. Smokers and people with alcohol and substance misuse problems can often be stigmatised by society and health professionals and need to be treated with non-judgemental compassion.

Emerging issues in smoking cessation, alcohol and substance misuse

E-cigarettes are increasingly used to aid smoking cessation. Ongoing research into the safety of e-cigarettes and their use for smoking cessation is underway. As a GP you should be aware of the latest evidence and guidance on e-cigarettes, and smoking cessation more generally, and use your clinical judgement on an individual patient basis.

Dependence on over-the-counter and prescribed medication is a growing problem, this particularly involves anabolic steroids, analgesics (including opioids and gabapentinoids), antidepressants, benzodiazepines, stimulants and z-drugs^{35,36}. Misused 'prescription-only' drugs are increasingly being obtained through internet purchase as well as illegal street sales. Doctors are facing increasing complexity in managing long-term alcohol and substance misuse in the context of ageing patients with multiple co-morbidities.

Knowledge and skills guide

Smoking

Within the context of primary care, consider the theoretical and practical aspects of the following:

- Types of tobacco (e.g. cigarettes, chewing tobacco, hookah, etc.)
- Health effects of tobacco, including:
 - its effects on the body
 - as a risk or causative factor for a range of diseases (e.g. cardiovascular, respiratory, metabolic)
 - morbidity in people with established diseases
 - its impact on the mental health of individuals and their wider social network
 - in specific groups (e.g. pregnant women, adolescents)
 - risks of passive smoking
- Tobacco dependence and why people struggle to stop smoking
- Nicotine addiction (including risk factors) and withdrawal (including physical and psychological symptoms)
- Relationship between tobacco use and socio-economic status
- The concept of compensatory smoking, especially related to cutting down as a harm reduction technique
- Assessment of the individual, including relevant focused physical and mental health examinations and investigations (e.g. carbon monoxide testing, spirometry, chest X-ray) where appropriate
- Benefits of cessation, including:
 - in the prevention of conditions such as COPD, CVD, cancer etc.

³⁵ All Party Parliamentary group for Prescribed Drug Dependence 2017 www.prescribeddrug.org

³⁶ <https://www.bma.org.uk/collective-voice/policy-and-research/public-and-population-health/prescribed-drugs-dependence-and-withdrawal>

- as a frontline treatment for long term conditions such as COPD
- in improving morbidity in conditions such as lung cancer
- Treatment of tobacco dependence, including:
 - Pathways to successful quitting and their effectiveness
 - Theory and practice of evidence-based primary care strategies for smoking cessation (e.g. brief interventions, Very Brief Advice)
 - Pharmacotherapy for smoking cessation (including nicotine replacement therapy, varenicline, bupropion)
 - The role of e-cigarettes in smoking cessation
 - The role of behavioural support in smoking cessation
- Conversations with smokers in the GP consultation.

Alcohol and substance misuse

For each problem or disease, consider the following areas within the general context of primary care:

- The natural history of the untreated condition including whether acute or chronic
- The prevalence and incidence across all ages and any changes over time
- Typical and atypical presentations
- Recognition of normal variations throughout life
- Risk factors, including lifestyle, socio-economic and cultural factors
- Diagnostic features and differential diagnosis
- Recognition of 'alarm' or 'red flag' features
- Appropriate and relevant investigations
- Interpretation of test results
- Management including self-care, initial, emergency and continuing care, chronic disease monitoring
- Patient information and education including self-care
- Prognosis

Symptoms and signs

Alcohol and substance misuse in primary care may present directly or indirectly, including through third party concerns e.g. from a friend or family member, or school. As a GP you should be alert to a wide range of possible presentations of alcohol or substance misuse. These include:

- Accidents and injuries occurring whilst under the influence of drugs or alcohol
- Behavioural changes such as neglecting other activities, poor hygiene, secrecy, self-neglect and social withdrawal
- Drug seeking behaviour (including criminal activity, diversion of prescribed medication, neglecting children, risk taking behaviour, sex work)
- Intoxication
- Loss of control of use
- Malnourishment
- Mental health problems related to substance misuse including mood disorders, post-traumatic stress disorder (PTSD) and psychosis

- Overdose
- Poor oral hygiene
- Social consequences of substance misuse e.g. contact with the criminal justice system (including incarceration), domestic violence, homelessness, poor attendance or functioning at school or work, relationship issues, safeguarding concerns, unemployment
- Signs and symptoms of medical conditions occurring in relation to alcohol misuse ascites, confusion, hematemesis, jaundice, melena, other upper gastrointestinal tract symptoms, features of Wernicke-Korsakoff syndrome
- Signs and symptoms of medical conditions related to substance use including cachexia and weight loss, chest pain, cough, fever, injection site problems, jaundice, limb erythema, pain or swelling, respiratory depression, shortness of breath
- Symptoms of withdrawal.

Common and important conditions

Dependent and non-dependent misuse of alcohol and substances, and the effects and risks of misuse (short term and long term, medical and non-medical) including:

- Common effects of the main problem drugs including anabolic steroids, antidepressants, benzodiazepines, cannabis, cocaine, gabapentinoids, new psychoactive substances (NPS), opiates, solvents, stimulants and Z-drugs
- Complications of alcohol and substance misuse in pregnancy including foetal alcohol spectrum disorder, growth retardation, neonatal withdrawal and pre-term delivery. Antenatal care for women misusing substances and alcohol including involvement of social services and safeguarding of unborn children
- Crises occurring in relation to substance and alcohol misuse including intoxication, mental health emergencies, overdose, safeguarding emergencies, trauma, Wernicke's encephalopathy and withdrawal
- Medical complications of substance misuse including:
 - infections
 - local infection in injecting drug misuse: cellulitis and abscess
 - systemic infection directly related to injecting drug misuse, including blood borne viruses (BBV) (hepatitis B and C, and HIV), endocarditis
 - opportunistic infection including tuberculosis;
 - malnutrition;
 - nasal and respiratory symptoms secondary to nasal substance (e.g. cocaine) use;
 - non-infective cardiac complications e.g. acute coronary syndrome, arrhythmia, ischaemic heart disease; and
 - venous thromboembolic disease
- Medical complications of long term alcohol misuse, including:
 - alcoholic liver and abdominal disease including ascites, cirrhosis, pancreatitis, portal hypertension and varices;
 - common health conditions where alcohol use may be a contributing factor, including cancer and hypertension;
 - neurological complications including encephalopathy, peripheral neuropathy and Wernicke-Korsakoff syndrome; and

- vitamin deficiencies
- Misuse of prescribed and over-the-counter medications
- Polyabuse of drugs and combined misuse of drugs and alcohol
- Mental health problems in the context of alcohol and substance misuse, including dual diagnosis, and 'self-medication' of mental health problems with drugs or alcohol
- Tolerance, dependence and withdrawal.

Examinations and procedures

- Assessment of alcohol problem drinking to assess the nature and severity of misuse
- Assessment of social circumstances and functioning of alcohol and substance misusers
- Substance misuse assessment including identifying substances used, quantity, frequency and pattern of use, routes of administration, sources of drugs and evidence of dependence
- Injection site assessment
- Mental health assessment
- Relevant physical examinations (including cardiovascular and abdominal examination and examination for stigmata of chronic liver disease).

Investigations

- Assessment of liver damage due to alcohol misuse including blood tests and imaging
- Blood tests including blood borne viruses (Hepatitis B and C and HIV), full blood count, haematinics, liver function, renal function, thyroid function
- ECG monitoring of QT interval in methadone prescribing
- Evidence based screening tools to identify alcohol misuse e.g. AUDIT-C
- Near patient testing for drug misuse.

Service issues

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- Barriers to care and difficulties in coordinating care. Particular challenges relating to individuals who are chaotic, homeless or in contact with the criminal justice system
 - Co-ordinated care and partnerships with the wider health care team and other agencies including public health, addictions specialists, criminal justice system, dentists, homeless services, mental health teams, pharmacies, social services, voluntary sector
 - Local arrangements for smoking cessation, drug or alcohol detoxification and rehabilitation
 - Local patterns and prevalence of smoking, alcohol and substance misuse
 - Opportunistic and planned general medical care and health promotion for smokers and alcohol or substance misusers including chronic disease care, contraception, general health promotion, safe sex advice, screening processes such as cervical screening, smoking cessation advice
 - Public health, policy making and commissioning in relation to tobacco control, alcohol and substance use (see also Topic Guide "*Population Health*")
 - Relevant local and national guidelines, standards, and legislation
 - Role of the primary care team in interventions

- Support to families of those misusing alcohol or substances, in particular children and intimate partners; including signposting to support services and resources.

Additional important content

- Behaviour change including psychosocial interventions
- Driving regulations (DVLA) in relation to drug and alcohol use (including prescribed and over the counter drugs) and the responsibility of the GP in relation to this
- Harm reduction in alcohol and substance misuse including needle exchanges, patient education, safer injecting education, sharps bins
- Impact of parental alcohol and drug misuse, including ability to function as a parent, domestic violence, safeguarding concerns, funding of drug habit, storage of drugs and paraphernalia
- Impact of parental smoking on children (e.g. SIDS, asthma)
- Particular considerations regarding children and young people who smoke, misuse alcohol or drugs, including risk of grooming or abuse
- Preventing drug related deaths, including identifying patients at high risk, local knowledge relating to drug supplies, identifying and treating overdose and withdrawal (role of naloxone), patient education, safe substitute prescribing
- Prevention or treatment of medical complications related to alcohol or substance misuse (e.g. treatment of BBVs, thiamine supplementation, vaccination against hepatitis A and B)
- Relapse prevention strategies, including psychosocial and pharmacological methods, and management of continued smoking or alcohol and drug misuse amongst patients
- Risk minimisation strategies and safe prescribing (e.g. benzodiazepines, analgesics, NRT)
- Risks to general health whilst misusing drugs and alcohol (e.g. smoking, risky sexual activity, non-participation in screening programmes, neglect of chronic disease care, poor nutrition)
- 'Street slang' terms for drugs and how they are used
- Substitute prescribing of methadone and buprenorphine – medical, legal, practical and safety aspects including shared care with addictions services.

Case discussion

Olivia is a 29-year-old woman who is living in a local homeless hostel. Her support worker has encouraged her to come and see you because she has noticed that Olivia has become more withdrawn, is neglecting her personal hygiene and seems to be drinking more alcohol.

Having established a rapport with Olivia she tells you she is drinking around 8 cans of cider a day. She has also started injecting heroin again and is also using cocaine. She is working as a prostitute to fund her habit. She tells you that she grew up in care and had a child when she was 21 who was taken into care at birth and has since had 3 pregnancies terminated. A recent partner subjected her to domestic violence. She tells you she has a criminal record for arson and shoplifting which makes it very difficult to get employment.

Olivia tells you she is ready to try and address her alcohol and substance misuse and would like help for this. You refer her to the local addictions service where she is seen under a shared care arrangement.

Things seem to be going reasonably well over the next six months, but then she fails to keep appointments with you and eventually turns up in your surgery two months later demanding to be seen urgently. She tells you she has started drinking again and that this is in response to the news that her hostel is being closed due to lack of funding. She is requesting a script for an alcohol detox.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your Educational Supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Competence	Questions
Fitness to practise This concerns the development of professional values, behaviours and personal resilience and preparation for career-long development and revalidation. It includes having insight into when your own performance, conduct or health might put patients at risk, as well as taking action to protect patients.	How do I feel about treating persistent drug and alcohol misusers? How do I feel towards patients who seem to be spurning my attempts to help them? Am I at risk of alcohol or substance misuse myself?
Maintaining an ethical approach This addresses the importance of practising ethically, with integrity and a respect for diversity.	What would I do if I knew Olivia was driving a car whilst under the influence of drugs and alcohol and refused to stop driving? How do I engage with the issue around Olivia's criminal record and the challenges that poses to employment opportunities? What do I feel about her work as a prostitute in order to fund her habit?
Communication and consultation This is about communication with patients, the use of recognised consultation techniques, establishing patient partnerships, managing challenging consultations, third-party consulting and the use of interpreters.	What strategies can I use to develop an effective therapeutic relationship with Olivia? What skills can I use to motivate Olivia towards making positive changes? Do I have to alter my consultation style to cope when I think patients might be deceiving me – such as to persuade me to issue prescriptions for medications that they might intend to misuse or sell?
Data gathering and interpretation This is about interpreting the patient's narrative, clinical record and biographical data. It also concerns the use of investigations.	How do I assess and quantify cigarette use, and drug and alcohol misuse? How do I assess risks of pregnancy, STI, HIV, hepatitis B and C with Olivia?

	How do I assess 'readiness to change'?
Clinical Examination and Procedural Skills This is about the adoption of an appropriate and proficient approach to clinical examination and procedural skills.	How would I assess acute confusion in a patient with known chronic liver disease? Am I confident in identifying acute alcohol withdrawal in a patient?
Making decisions This is about having a conscious, structured approach to decision-making; within the consultation and in wider areas of practice.	Which of Olivia's problems are the most damaging to her health? As a GP, how do I prioritise the actions needed to address Olivia's problems? How do I assess any safeguarding concerns this case may raise? How do I assess if a request for a community alcohol detoxification is appropriate?
Clinical management This concerns the recognition and management of common medical conditions encountered in generalist medical care. It includes safe prescribing and medicines management approaches.	How do I balance risks in deciding her management plan? Am I aware of the safety issues around methadone use in substitute prescribing? Do I know how to treat tobacco addiction? In what ways is it similar to, or different from, addiction to other drugs and alcohol?
Managing medical complexity This is about aspects of care beyond managing straightforward problems. It includes multi-professional management of co-morbidity and poly-pharmacy, as well as uncertainty and risk. It also covers appropriate referral, planning and organising complex care, promoting recovery and rehabilitation.	Which of Olivia's issues can I deal with – and which are beyond the scope of a GP? How do I cope when patients present with multiple issues many of which are not medical, and which are likely to take much longer than a ten-minute consultation?
Working with colleagues and in teams This is about working effectively with other professionals to ensure good patient care. It includes sharing information with colleagues, effective service navigation, use of team skill mix, applying leadership, management and team-working skills in real-life practice, and demonstrating flexibility with regard to career development.	Which support services are available in my area to help patients and families affected by substance and alcohol misuse? What factors determine good 'shared care' in smoking cessation, drug and alcohol services? What are the challenges of providing this?
Improving performance, learning and teaching This is about maintaining performance and effective CPD for oneself and others. This includes self-directed adult learning, leading clinical care and service	How can I learn about the substance misuse problems particular to my locality? How can I keep up to date with current substances of misuse and how they are used?

development, quality improvement and research activity.	What activities might help me reflect on uncomfortable issues and feelings raised by patients like Olivia?
Organisational management and leadership This is about the understanding of organisations and systems, the appropriate use of administration systems, effective record keeping and utilisation of IT for the benefit of patient care. It also includes structured care planning, using new technologies to access and deliver care and developing relevant business and financial management skills.	How do I help the practice reception team cope with patients like Olivia, who can be challenging and make unreasonable demands of medical receptionists? How can we help individuals like Olivia, who are often chaotic, to make best use of primary healthcare? Do we have systems in place to offer health checks and appropriate monitoring and immunisation to substance and alcohol users?
Practising holistically, safeguarding and promoting health This is about the physical, psychological, socioeconomic and cultural dimensions of health. It includes considering feelings as well as thoughts, encouraging health improvement, preventative medicine, self-management and care planning with patients and carers.	Olivia is likely to be moving on to new accommodation, or the streets, soon – what impacts does the transient nature of her difficult living situation have on her healthcare provision? What steps can be taken to try and improve this situation for her? How might the inverse care law apply in provision of health care to someone like Olivia?
Community orientation This is about involvement in the health of the local population. It includes understanding the need to build community engagement and resilience, family and community-based interventions, as well as the global and multi-cultural aspects of delivering evidence-based, sustainable healthcare.	How do I feel about funding cuts to local services such as stop smoking services or homeless hostels? What response might be appropriate in my role as a local GP? As a GP, in what ways can I be involved in helping vulnerable young people to reduce the risk of them becoming involved in substance and alcohol misuse?

How to learn this area of practice

Work-based learning

There is no substitute for actually working with patients with substance and alcohol problems or tobacco dependence to learn how to provide good care in often-challenging situations. As a GP specialty trainee, you should spend time observing a more experienced GP and then, under proper supervision, take on your own primary care patients with these problems. By doing so you will come into contact with a broad range of service providers and develop an understanding of how the treatment system should work – and how often it doesn't. You will also become familiar with wider health and psycho-social issues that often exist in the context of smoking, alcohol and substance misuse.

A placement in a specialist substance or alcohol service, either residential or in the community, would provide valuable experience. Unfortunately, few placements of this type are available, however a placement in general adult psychiatry should give you some exposure to substance and

alcohol problems, as well as invaluable general psychiatric training. Time spent with other providers of care in the field of smoking cessation, alcohol and substance misuse, including those from non-statutory agencies and independent sector providers, can help to get a broader overview of available services.

Self-directed learning

You can find an e-Learning module(s) relevant to this topic guide at e-Learning for Healthcare (e-lfh.org.uk) and at RCGP Learning www.elearning.rcgp.org.uk

In addition to e-Learning resources on this area the RCGP has produced a policy statement on the use of e-cigarettes, which can be found on its website. The National Centre for Smoking Cessation and Training (NCSCT) is funded by Public Health England to support the delivery of effective evidence-based tobacco control programmes and smoking cessation interventions, and provides a range of resources (<http://www.ncsct.co.uk/>). The Royal College of Physicians (RCP) has also produced a number of reports on the subject.

The UK Guidelines on Drug misuse and Dependence 2017 provide a comprehensive overview of this field (they are sometimes referred to as 'The Orange Book'). You will find it informative to find out more about mutual aid groups such as Alcoholics Anonymous, Narcotics Anonymous and SMART Recovery from their websites and if possible by attending open meetings. Local and regional groups for doctors with a special interest in addictions also exist, which you may find useful to attend. Talk To Frank (<https://www.talktofrank.com/>) is a drug education service aimed at patients, but has useful information about the different drugs, their appearance, street names, mode of use, effects and dangers. As in other areas the RCGP eLearning website has several modules covering this topic. Trainees should be able to bring interesting and complex cases to tutorials and peer group meetings.

Learning with other healthcare professionals

Effective tobacco control requires multidisciplinary approaches at the level of both the population and the individual, therefore a number of professionals and teams will be involved in smoking cessation interventions. As a GP trainee you should spend time with members of the primary care team trained in smoking cessation, and find out more about your local model of delivery for NHS smoking cessation.

In relation to drug and alcohol misuse, the certificate courses mentioned below are multidisciplinary and so provide an excellent insight into other professionals and workers in the field. The RCGP yearly conference on Substance Misuse Management in Primary Care is well attended by many different professionals, workers and service users. Some regions have multidisciplinary learning meetings.

Formal learning

There are several opportunities (e.g. through courses and conferences) to learn how to deliver effective smoking cessation interventions in a GP setting. These may be accessed via your GP Specialist Training Scheme, the RCGP, and other organisations such as the NCSCT and RCP.

The RCGP Part 1 Certificate in the Management of Drug Misuse in Primary Care is well worth doing even if you don't envisage developing a special interest in this field. The Part 2 certificate is especially useful if you wish to develop a special interest, become a GP with a Special Interest (GPwSI) and/or participate in local shared care schemes and enhanced services. The Certificate in the Management of Alcohol Problems in Primary Care is also valuable for all GPs. Details are on the RCGP Online Learning Environment website www.elearning.rcgp.org.uk

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Natural history of viral hepatitis B and C infections
- Drug substitutes for drug and alcohol misuse
- Cardiac risks of cocaine use.

Clinical Skills Assessment (CSA)

- Bus driver asks for help to break his habit of heavy drinking
- Final year school student complains of irritability and low mood which is likely to be associated with his regular marijuana use
- Two A&E notifications: two falls while inebriated. The woman cares for her grandchildren but denies drinking when she is responsible for them.

Workplace-based Assessment (WPBA)

- Case discussion about a woman who is concerned about her husband's alcohol intake and subsequent violent behaviour
- Consultation Observation Tool (COT) about a young woman who wishes to stop smoking
- Log entry about your understanding of the local drug and alcohol service following a patient's referral.
- Clinical Examination and Procedural Skills (CEPS) relating to clinical examination of a patient with possible venous thrombosis from self-injection