

Prescribing Safety Assessment Guide for Foundation Doctors

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1. Introduction

The Prescribing Safety Assessment (PSA) has been developed jointly by the British Pharmacological Society and the Medical Schools Council, with the aim of enabling students to demonstrate competencies in relation to the safe and effective use of medicines.

It was developed based on the competencies identified by the General Medical Council outlined in Tomorrow's Doctors (2009). This guidance has since been superseded by the General Medical Council's undergraduate standards and guidance, specifically the outcomes for graduates, produced in July 2015. It states, within the "doctor as a practitioner" section:

Prescribe drugs safely, effectively and economically.

- a) *Establish an accurate drug history, covering both prescribed and other medication.*
- b) *Plan appropriate drug therapy for common indications, including pain and distress.*
- c) *Provide a safe and legal prescription.*
- d) *Calculate appropriate drug doses and record the outcome accurately.*
- e) *Provide patients with appropriate information about their medicines.*
- f) *Access reliable information about medicines.*
- g) *Detect and report adverse drug reactions.*
- h) *Demonstrate awareness that many patients use complementary and alternative therapies, and awareness of the existence and range of these therapies, why patients use them, and how this might affect other types of treatment that patients are receiving.*

The GMC guidance can be found here:

http://www.gmc-uk.org/education/undergraduate/undergrad_outcomes_2.asp

The PSA was first piloted in 2010, and by 2014 was taken by all final year UK medical students. All medical schools in the UK participate, along with five in Ireland and one in Malta. The PSA is held in medical schools between February and June each year.

Passing the PSA is now an essential part of successful completion of the F1 year (from August 2016 entry).

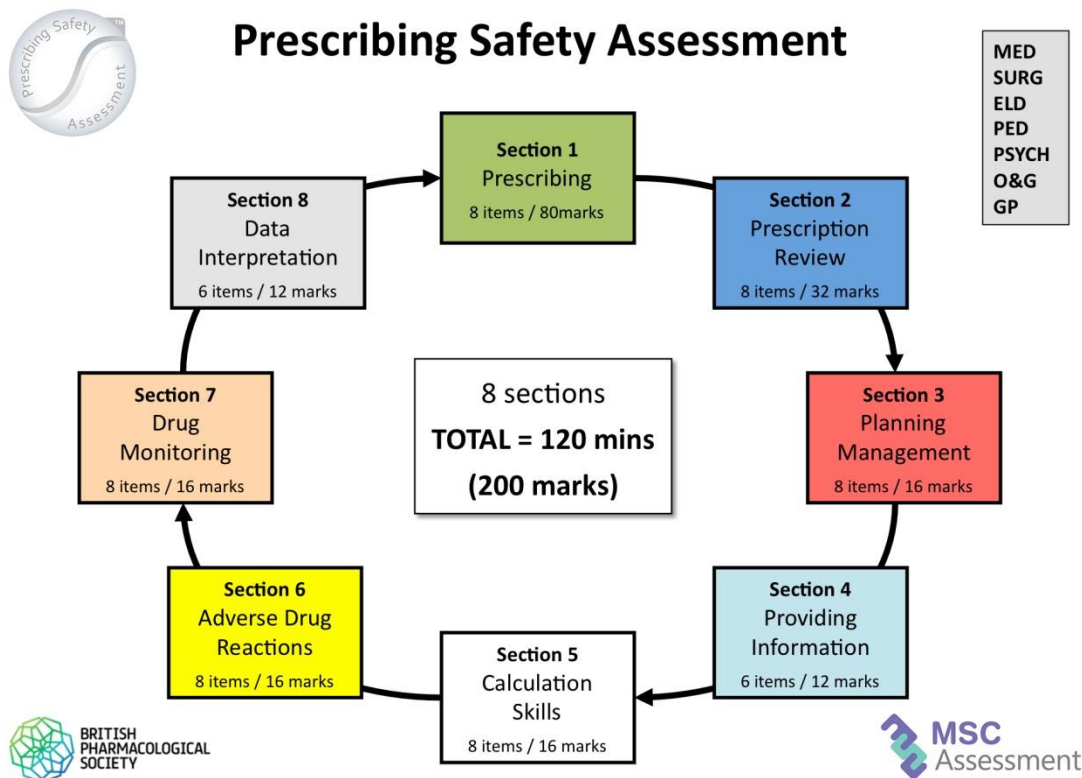
As most of those entering foundation training have already passed the PSA during medical school, only a small number need to take it during foundation training. These will be doctors who failed to pass or did not have the opportunity to sit the PSA during their undergraduate medical training, including non-UK trainees.

If the PSA was passed more than 2 years before starting foundation training, then it will need to be successfully retaken before completion of the F1 year (applies from August 2016 F1 entry).

2. The Prescribing Safety Assessment

The PSA is an online assessment, delivered on a secure platform. The assessment is nationally developed but conducted locally by medical schools. The content of each item is relevant to the prescribing tasks expected of an F1 doctor, i.e. the questions refer to conditions and drugs likely to be encountered in year one of the Foundation Programme.

The PSA includes 60 items and is 2 hours in length. There are eight prescribing areas covered as shown below¹:



The format of the questions varies depending on the skill being assessed; some ask the candidate to 'write' an appropriate prescription for a given problem, others ask the candidate to choose the most appropriate option from a list or to perform a calculation.

Trainees with a form of disability covered by the Equality Act 2010 may be considered for reasonable adjustments. Those with a temporary or long term health condition may also be considered, provided their Foundation School and assessment centre has been made aware of their condition before the PSA sitting.

More information on the assessment and the prescribing areas can be found at:
<https://prescribingsafetyassessment.ac.uk/>

In addition, videos have been produced to assist candidates undertaking the PSA assessment. The list of these videos and links are in chapter 5. Please note that these were primarily intended for a medical school audience.

¹ Picture reproduced with permission of Professor Simon Maxwell.

3. Communications regarding the PSA

Each Foundation School will have a PSA lead and administrator. Foundation doctors should receive information on the details of the assessment from the June before the first assessment in July that will include:

- Date of the assessment
- Location and time of the assessment
- How to activate your account
- Items needed on the day of the assessment
- How you will receive your results.
- Point of contact if you have concerns

The letter may have an explanation of the implications of failure to pass the PSA on the trainee's foundation training outcomes.

4. Remediation and support for trainees who fail, or have not yet sat, the PSA

The 2008 Health and Social Care Act includes regulation to protect patients against the risks associated with the unsafe use and management of medicines. If a trust is aware that a trainee is not competent to prescribe on commencing employment they must therefore ensure that there are appropriate support arrangements in place to ensure patient safety.

The method of support offered to trainees that fail the PSA will vary depending on the foundation school. Information on the support and expectations of the trainees is communicated via the foundation school or locally via trusts.

Feedback provided by the PSA

PSA feedback is provided for each candidate as the total percentage mark gained in the PSA, with performance data for each section of the assessment. Trainees and their supervisors should use the feedback to focus training on the areas which require further development.

Sitting the PSA

There will be several opportunities to sit/resit the PSA: the dates for 2016/17 are listed below.

1. First PSA: 22nd July 2016
2. Second PSA: 11th November 2016
3. Third PSA: via medical Schools
 - a. Friday 3rd February, 2017
 - b. Monday 13th March, 2017
 - c. Monday 15th May, 2017
 - d. Friday 2nd June, 2017

5. Becoming familiar with the PSA and NHS prescribing

Information about the PSA and NHS prescribing systems is provided below, together with activities for becoming familiar with prescribing in the NHS.

Activity	Completed
Familiarisation with the Prescribing Safety Assessment	
Watch the videos produced by the PSA:	
PSA 2016 video for candidates: Registering and activating your account https://vimeo.com/150768703 For Apple devices: https://player.vimeo.com/video/150768703	
PSA 2016 video for candidates: Back ground to the PSA https://vimeo.com/150780292 For Apple devices: https://player.vimeo.com/video/150780292	
PSA 2016 video for candidates: Preparing for your PSA event https://vimeo.com/150790915 For Apple devices: https://player.vimeo.com/video/150790915	
PSA 2016 video for candidates: PSA Assessment Environment https://vimeo.com/150812431 For Apple devices: https://player.vimeo.com/video/150812431	
PSA 2016 video for candidates: Using the British National Formulary https://vimeo.com/150734395 For Apple devices: https://player.vimeo.com/video/150734395	
PSA 2016 video for candidates: Prescribing Question Items https://vimeo.com/151039705 For Apple devices: https://player.vimeo.com/video/151039705	
PSA 2016 video for candidates: Prescription Review Question Items https://vimeo.com/151065182 For Apple devices: https://player.vimeo.com/video/151065182	
PSA 2016 video for candidates: Planning Management Question Items https://vimeo.com/151072712 For Apple devices: https://player.vimeo.com/video/151072712	
PSA 2016 video for candidates: Providing Information Question Items https://vimeo.com/151075459 For Apple devices: https://player.vimeo.com/video/151075459	
PSA 2016 video for candidates: Calculation Skills Question Items https://vimeo.com/151086966 For Apple devices: https://player.vimeo.com/video/151086966	
PSA 2016 video for candidates: Adverse Drug Reaction Question Items https://vimeo.com/151162112 For Apple devices: https://player.vimeo.com/video/151162112	
PSA 2016 video for candidates: Drug Monitoring Question Items https://vimeo.com/151172957 For Apple devices: https://player.vimeo.com/video/151172957	
PSA 2016 video for candidates: Date Interpretation Question Items https://vimeo.com/151167910 For Apple devices: https://player.vimeo.com/video/151167910	
Activate your PSA account as soon as you receive an email with a link (early July)	
Undertake practice papers on the PSA platform.	

Activity	Completed
Familiarisation with the NHS Prescribing Systems	
Prior to the PSA:	
Awareness and practical application of the British National Formulary and sources of information (Athens account required which can be obtained from the trust library): https://www.bnf.org/products/bnf-online/	
Become familiar with UK products available, regular doses and indications using the BNF above	
Read national prescribing guidance on common diseases via National Institute for Health and Care Excellence (NICE) https://www.nice.org.uk/	
To get greater understanding on the purpose of the systems above (including the use of licenced and unlicensed medicines) work through the Managing Medicines Module , created by the UK Medicines Information http://www.medicineslearningportal.org/2016/01/managing-medicines.html	
During induction:	
Undertake any directed learning regarding prescribing your trust sends you (this may be electronic, face to face sessions, or send prior to induction).	
Familiarise yourself with the Trusts Prescribing Formulary <i>Please note if you are rotating to another trust eg mental health trust they will have their own formulary</i>	
Familiarise yourself with the Trust's Prescribing Guidelines	
Utilise additional resources to assist you with prescribing such as eLearning where available (e.g. Learning in Foundation training – LIFT or Standard Computerised Revalidation Instrument for Prescribing and Therapeutics - SCRIPT)	

6. Using SCRIPT to support safe prescribing

This chapter is divided into two sections:

- Introduction to SCRIPT and
- Using SCRIPT for remediation/support in passing the PSA

Introduction to SCRIPT

What is SCRIPT and how is it structured?

SCRIPT (*Standard Computerised Revalidation Instrument for Prescribing and Therapeutics*) is an innovative e-Learning programme that provides trainees with a series of modules to explore prescribing and therapeutics. It is an easily accessible web-based programme covering competencies defined by the GMC and required within the Foundation Curriculum.

A total of 47 modules are available, equivalent to 30 to 70 hours of learning.

All modules have a similar structure and are designed to be interactive. Each module includes a variety of activities, the quantity and type of which vary between modules. If the activities are undertaken as intended, each module is estimated to take 30 to 90 minutes, depending on the trainee's prior experience and confidence in the topic. The typical structure of a module consists of:

- Overview and learning outcomes
- Pre-test
- Knowledge content
- In-module activities
- Post-test
- Certificate

Who has access to SCRIPT?

Current (April 2016) institutions with access to SCRIPT (including medical schools):

HEE – West Midlands	Medical school – Queen Mary’s
HEE – East Midlands	Medical school – Birmingham
HEE – North East	Medical school – Keele
HEE – Yorkshire and Humber	Medical school – Southampton
HEE – Kent, Sussex and Surrey	Medical school – Warwick
HEE – Wessex	Medical school – Kings
HEE – North, Central and East London	Medical school – Liverpool
HEE – North West London	
NHS Trust – Isle of Wight	
NHS Trust – West Suffolk	
NHS Trust – Norfolk and Norwich	

How do trainees access SCRIPT?

Foundation trainees can self-register on the website; first they must select the region in which they are training: <http://www.safeprescriber.org/specialty/foundation/>

Can Foundation Schools and Trusts monitor the use of SCRIPT by trainees?

Each foundation school and trust can monitor trainees’ performance on SCRIPT using “manager’s access”.

Within the manager’s function administrators can see trainees’ pre- and post-test results for each module, along with the time taken to complete the learning and when this was completed (date/time).

Foundation schools can set their own criteria for successful completion of modules, so certificates are not automatically generated even if trainees score poorly. For example, the criteria might be that a trainee must spend at least 10 minutes on a module and score at least 70% on the post-test assessment. Trainees who fail to pass a module using these criteria will be required to reset the module and start again.

What are the IT requirements for SCRIPT?

SCRIPT requires computers with the following technical specification:

Resolution	1024x768 or above
Browsers	Internet Explorer 8+ (9+ Recommended) Mozilla Firefox 5+ Google Chrome 20+ Opera 11 Apple Safari 6+
Platforms	Windows XP, Vista, 7 Apple Mac OSX 10.x
Connection Speed	ADSL 2 mbps
Adobe Flash Player	Flash Player 10.3+
JavaScript enabled	Required
Cookies Enabled	Required
Video/Audio	Mp3/Flv: Flash Player 9.0, 10
Memory	128MB of RAM

* iPad compatible (HTML5) course player was released in January 2013. Whether exported as a SCORM package or used in nimbleLMS®, courses will automatically toggle to HTML5 when Flash is not available.

Using SCRIPT for remediation / before sitting the PSA

As many modules are available a summary is provided below.

The SCRIPT modules are presented in one of seven units. The eight PSA sections have been mapped to SCRIPT modules to help direct trainees sitting the PSA. As some sections of the PSA are mapped to several modules, some trainees may require support from a senior person to direct their learning. The pre-test function of each module identifies trainees with poor knowledge in that specific area.

7. Prescribing topics per PSA section mapped to SCRIPT modules

This matrix has been created by mapping the topics of the relevant sections of the PSA to the SCRIPT module learning outcomes. Performance in the PSA is broken down by section. Some PSA sections have greater weight than others.

If you have under-performed in several PSA sections, or are new to the PSA/ prescribing in the NHS, it may be helpful to undertake the following recommended modules in priority order (as there are 18 SCRIPT modules within the matrix). These have been selected based on the weight of the section in which they appear and the number of times they occur in the matrix:

1. Rational Drug Choice
2. Utilising the BNF
3. Prescription Documentation
4. Fluids
5. Taking a Safe and Effective Drug History
6. Adverse Drug Reactions
7. Dosing and Calculation
8. Drug Interactions
9. Adherence and Concordance

PSA Prescribing Area / Topics included	SCRIPT Module
Prescribing	Weight 40%
Drug history	Taking a Safe and Effective Drug History
Fluid management	Fluids
Prescription Documentation	Prescription Documentation
Rational Drug Choice	Rational Drug Choice
Utilising information to inform prescribing	Utilising the BNF / BNFc
Prescription Review	Weight 16%
Adherence	Adherence and Concordance
Adverse Drug Reactions	Adverse Drug Reactions
Dosing	Dosing and Calculation
Drug history	Taking a Safe and Effective Drug History
Hepatic Impairment	Prescribing in Hepatic Dysfunction
Interactions	Drug Interactions
Medication Errors	Medication Errors
Polypharmacy	Prescribing in Older Adults
Rational Drug Choice	Rational Drug Choice
Renal impairment	Prescribing in Renal Dysfunction
Utilising information to inform prescribing	Utilising the BNF / BNFc
Planning Management	Weight 8%

Adherence	Adherence and Concordance
Drug history	Taking a Safe and Effective Drug History
Rational Drug Choice	Rational Drug Choice

PSA Prescribing Area / Topics included	SCRIPT Module
Providing Information	Weight 6%
Adherence	Adherence and Concordance
Adverse Drug Reactions	Adverse Drug Reactions
Dosing	Dosing and Calculation
Formulation and Administration	Formulation and Administration
Interactions	Drug Interactions
Calculation Skills	Weight 8%
Administration	Formulation and Administration
Calculations	Dosing and Calculation
Adverse Drug Reactions	Weight 8%
Adverse Drug Reactions	Adverse Drug Reactions
Anaphylaxis	Drug Allergy and Anaphylaxis
Interaction	Drug Interactions
Management of ADRs	Parenteral Poisons
Management of ADRs	Toxic Tablets
Utilising information to inform prescribing	Utilising the BNF / BNFc
Drug Monitoring	Weight 8%
Adverse Drug Reactions	Adverse Drug Reactions
Rational Drug Choice	Rational Drug Choice
Therapeutic Drug Monitoring	Monitoring Drug Therapy
Utilising information to inform prescribing	Utilising the BNF / BNFc
Data Interpretation	Weight 6%
Hepatic Impairment	Prescribing in Hepatic Dysfunction
Rational Drug Choice	Rational Drug Choice
Renal impairment	Prescribing in Renal Dysfunction
Therapeutic Drug Monitoring	Monitoring Drug Therapy
Utilising information to inform prescribing	Utilising the BNF / BNFc