

The AKT

Nick Price

Neal Maskrey

Aim

To help Trainers identify how they might best support trainees prepare for the AKT exam, particularly for those trainees for whom this exam is a major challenge.

Objectives

- To share experiences of trainees who have struggled with the AKT.
- To understand the depth and breadth of the AKT.
- Identify key learning resources and learning strategies that will help trainees prepare for the exam efficiently and effectively.
- Consider how trainers and training practices can support trainees who face a particular challenge to succeed with the AKT.

About us

Nick Price

Recently TPD Bradford, Academic Teaching Leeds University,
years of supporting

Neal Maskrey

Not-recently (!) Scarborough, National Prescribing Centre,
NICE, Prof of Evidence – informed Decision Making, Keele
University.

Together

10 years + of AKT teaching; online, blended learning since
COVID.

Sharing Experiences

Did you take the AKT yourself?

Have you had experiences with trainees sitting the AKT?

What is the role of the trainer re the AKT?

How hard is it?

Statistics Jan 2021

Pass mark = 138/200 (69.0%)

Overall pass rate = 68.3%

Cumulative pass rate after four attempts for all those who take AKT is approximately 95%

Breakdown of scores

Clinical medicine

- 160 questions
- Average score 72.8%

Evidence-based practice, data interpretation

- 20 questions
- Average score 77.1%

Organisation, management, ethics, regulatory, statutory

- 20 questions
- Average score 74.2%

Try a few questions.....

Mock Exam

11 Questions

57 seconds per question

Test Question

Blah blah blah blah blah

A xxxxxxxxxxxxxxxx

B yyyyyyyyyyyyyyy

C zzzzzzzzzzzzzzz

D iiiiiiiiiiiiiiiiiii

E ssssssssssssssss

1. Post-myocardial infarction

A 58-year-old woman had an ST-segment-elevation myocardial infarction two months ago. She has made a good recovery but has low mood and a poor sleep pattern with early morning wakening. She wishes to try medication as her symptoms are affecting her ability to work.

Which is the SINGLE MOST appropriate antidepressant drug? Select ONE option only.

- A Amitriptyline
- B Fluoxetine
- C Lofepamine
- D Mirtazapine
- E Venlafaxine

2. Weakness

A 35-year-old woman has noticed increasing weakness and numbness in her legs and arms over the past few days, and today she is feeling short of breath on exertion. Six weeks ago she had diarrhoea while on holiday abroad and stool culture confirmed infection with *Campylobacter jejuni*. She was treated with ciprofloxacin and recovered fully.

Which is the SINGLE MOST likely diagnosis? Select ONE option only.

- A Drug-induced neuropathy
- B Guillain-Barré syndrome
- C Motor neurone disease
- D Myasthenia gravis
- E Multiple sclerosis

3. Emergency contraception

A 26-year-old woman had unprotected sexual intercourse 12 hours ago. She is mid-cycle and this is the first occasion in this cycle. She wishes to start the combined oral contraceptive pill today in addition to Levonelle emergency contraception.

Which is the SINGLE MOST appropriate length of time, if any, that she needs extra precautions to prevent pregnancy? Select ONE option only.

- A 2 days
- B 7 days
- C 9 days
- D 16 days
- E No additional contraceptive precautions necessary

4. Skin rash

This nine-year-old boy has been unwell for the past few days and developed a rash affecting his trunk and limbs yesterday. He has no underlying medical problems and is feeling better today. His mother has used a cream recommended by the pharmacist.



Which is the **SINGLE MOST** appropriate management option? Select **ONE** option only.

- A No additional treatment
- B Oral aciclovir
- C Topical aciclovir
- D Topical fusidic acid
- E Topical mupirocin

5. Investigation of deafness

A 56-year-old man has a two-year history of deafness affecting his right ear. He has had intermittent episodes of vertigo, tinnitus and vomiting each lasting a few hours. The whispered voice test is diminished in his right ear. You perform tuning fork tests.

**Which is the SINGLE MOST likely result of the tuning fork tests?
Select ONE option only.**

	Rinne's – conduction results	Weber's – ear localisation
A	Air > bone	Left
B	Air > bone	Right
C	Bone > air	Left
D	Bone > air	Right
E	Air same as bone	Equal

6. Lethargy

A 50-year-old man has become increasingly tired and lethargic over the past six months and has developed erectile dysfunction. His wife comments that he looks tanned even in the winter months. His serum ferritin and transferrin levels are significantly raised, but his haemoglobin is normal.

Which is the SINGLE MOST likely diagnosis? Select ONE option only.

- A Addison's disease
- B Chronic active hepatitis
- C Diabetes mellitus
- D Haemochromatosis
- E Hypothyroidism

Viruses

- | | | | |
|---|--------------------|---|-----------------------------|
| A | Adenovirus | F | Herpes simplex virus |
| B | Cytomegalovirus | G | Human papilloma virus |
| C | Echovirus | H | Respiratory syncytial virus |
| D | Epstein-Barr virus | I | Rotavirus |
| E | Hepatitis B virus | J | Rubella virus |

For each clinical condition, select the SINGLE MOST likely causative virus from the list of options.

7. Hepatocellular carcinoma

8. Genital warts

9. Visual disturbance

A 20-year-old woman notices bright lines of light in both visual fields followed shortly afterwards by a partial loss of her vision. Her visual symptoms resolve after one hour but she has slight nausea.

Which is the SINGLE MOST likely diagnosis? Select ONE option only.

- A Acute glaucoma
- B Migraine
- C Optic neuritis
- D Retinal detachment
- E Vitreous detachment

Risk of hip fracture

A cohort study evaluated the relationship between dietary calcium supplementation and hip fractures in post-menopausal women. 100 women took calcium supplements and 100 women took placebo tablets.

Over the three-year period, five women had hip fractures in the calcium group and ten women had hip fractures in the placebo group. The 95% confidence interval is 0.18 to 1.4.

10. What is the RISK of a hip fracture in the TREATED group? Select ONE option only.

- A 0.01
- B 0.05
- C 0.1
- D 0.5
- E 1.0

11. What is the RISK RATIO? Select ONE option only.

- A 0.01
- B 0.05
- C 0.1
- D 0.5
- E 1.0

Answers

1. Post-myocardial infarction

A 58-year-old woman had an ST-segment-elevation myocardial infarction two months ago. She has made a good recovery but has low mood and a poor sleep pattern with early morning wakening. She wishes to try medication as her symptoms are affecting her ability to work.

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- C Lofepramine
- D Mirtazapine
- E Venlafaxine

B: Fluoxetine
NICE Guideline.
Depression in people with chronic diseases

2. Weakness

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- D Myasthenia gravis
- E Multiple sclerosis

B: Guillan-Barre.
OHGP

3. Emergency contraception

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C 9 days

D 16 days

E No additional contraceptive precautions necessary

B: 7 days
FSHRH

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A. No additional treatment
OHGP

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This is classical Meniere's disease
So sensorineural deafness.
Whisper = deaf R ear
So air > bone, and TF localizes to
non-affected ear.
Answer: A
OHGP

6. Lethargy

A 50-year-old man has become increasingly tired and lethargic over the past six months and has developed erectile dysfunction. His wife comments that he looks tanned even in the winter months. His serum ferritin and transferrin levels are significantly raised, but his haemoglobin is normal.

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Answer: D
OHGP

Viruses

- | | | | |
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For each clinical condition, select the SINGLE MOST likely causative virus from the list of options.

7. Hepatocellular carcinoma

8. Genital warts

7: E (Hep B)

8: G (HPV)

9. Visual disturbance

A 20-year-old woman notices bright lines of light in both visual fields followed shortly afterwards by a partial loss of her vision. Her visual symptoms resolve after one hour but she has slight nausea.

Which is the SINGLE MOST likely diagnosis? Select ONE option only.

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- E Vitreous detachment

B: Migraine
OHGP

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- A 0.01
- B 0.05
- C 0.1
- D 0.5
- E 1.0

Control event rate: 10%
Experimental event rate = 5%

10. $5\% - 0.05$ B
11. $RR = EER / CER$
 $= 5/10 = 0.5$. D

11. What is the RISK RATIO? Select ONE option only.

- A 0.01
- B 0.05
- C 0.1
- D 0.5
- E 1.0

What are the common reasons for not passing?

NB. Some people have multiple factors.

Reasons for failing AKT

Taking it at the wrong time

Poorly prepared

Poor technique

Health issues/anxiety

Dyslexia

Taking it at the wrong time

Experience in GP

”Easier” jobs vs ”Harder” jobs?

Life events?

Time to prepare properly?

Goldilocks – not too late, not too early.

Poorly prepared

“I’ll give it a go, I might get lucky”

Over-reliance on commercial question banks

Scattergun approach to resources

CKS, BNF, Oxford Handbook of General Practice

c200 hours of revision (active learning)

“Background” questions (OHGP)

25%+ of Qs are therapeutics (BNF)

Poor technique

Ignoring EBM/DI and Organisational

Time management

Flagging Qs

Checking arithmetic (dosage calculations)

Relying on local /practice guidelines = national guidelines

Marginal gains – ENT, skins, eyes

Examiners reports

Read the question, THEN look at the data / picture

Health issues / anxiety

Affective biases – hungry, angry, late, tired, lonely

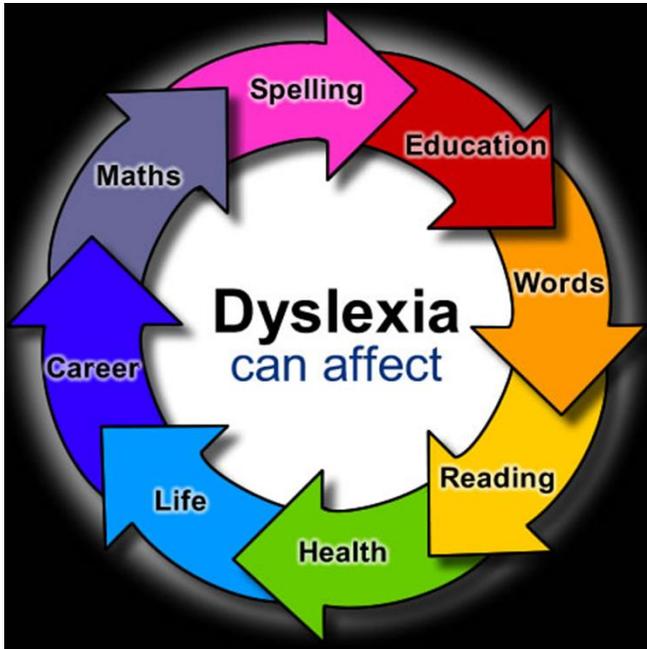
Pearson Vue tutorial

On the day

<https://elearning.rcgp.org.uk/mod/page/view.php?id=10501>

Dyslexia

link to an interesting article <https://www.mededpublish.org/manuscripts/938>



Trying to avoid reading and writing whenever possible, and conceal problem with reading and writing

Poor spelling

Poor time management and organisation

Relying on memory and verbal skills, rather than reading and writing

NB Stigma issue

Eligibility for neurodiversity screening

Available to all.

Self assessment on HEEY&H website.

If positive, HEE will meet the costs of full testing. Contact your deanery admin. team for more information.

If positive, more time in the AKT exam.

doitprofiler.com

<https://profiler.app/dyslexia-2/>

IMGs

Attempt	1	2	3	4
UK Grad N= Pass:	2105 86.6%	272 70.0%	82 66.7%	23 56.5%
IMG N = Pass:	792 54.4%	292 50.3%	143 57.5%	72 48.6%

Different UG curriculum (background questions)

Reading speed?

Past H/O MCQs?

Approach to study?

Summer 2011 Data

So what can Trainers help with?

For discussion....

Learning in context.

Early intervention: 1 fail, ST3 no sits, early indications AKT might be a problem....do something early other than hope for the best.

And actually if it's a 50:50 chance of passing, it's worth putting a decent effort in for sitting 1.

Use a mock AKT to assess readiness (RCGP AKT website 50 QandAs, www.aktprep.co.uk, 14 Fish. NB: GP Self Test seems a bit "harder" than the AKT.

1 fail = a change of preparation strategy.

Too many people try and plough on alone.

Definitely don't wait for 2 or 3 fails before getting support.

Diagnosis (preparation?, timing?, resources?, life?, technique?, dyslexia?) then advice and different approach.

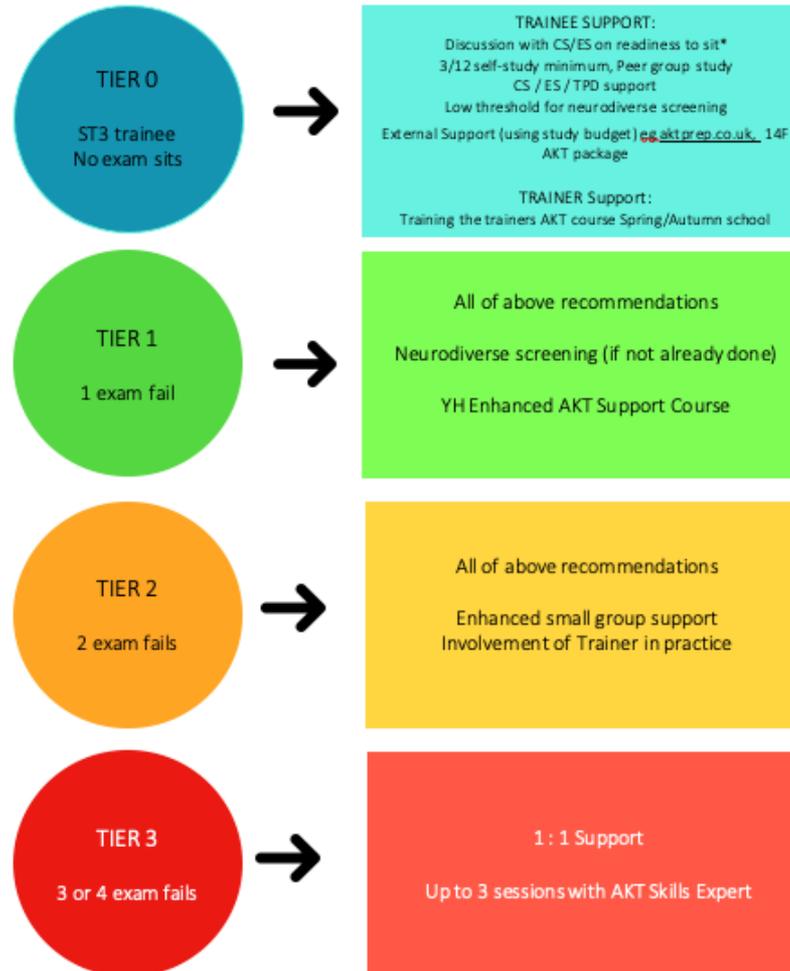
www.aktprep.co.uk for lots of people, and definitely after 1 fail.

Consider 14 Fish (with some reservations).

For a small number of candidates with complex issues - ask us to help as early as possible.

DRAFT

AKT SUPPORT FOR TRAINEES 2021



Do trainees
know where
they are
weakest?

RCGP curriculum - [GP curriculum: overview](#)

RCGP content guide - [AKT content guide](#)

GP curriculum self assessment tool - [Self assessment tools](#)

PUNs and DENs, Trainer feedback

AKT summary reports

AKT sample questions and answers [MRCGP | Applied Knowledge Test \(AKT\)](#)

Fourteen Fish AKT package mock AKT

RCGP -GP SelfTest [Home: GP SelfTest](#)



Which resources should they get information from?

Which resources?

CKS, BNF, OHGP.

GMC, FRMISH, DVLA, CAA, DWP,
patient.co.uk, essential knowledge updates
on RCGP

AKT Content guide RCGP website

Books – How to read a paper T
Greenhalgh, RCGP AKT -Research,
epidemiology and statistics.

Which additional resources?

Innovait – AKT questions

BMA – complaints, removal of patients etc.

Self test sites - GP self test, commercial Q banks

Fourteen fish AKT package



Mock AKT – strongly predicts score in the exam. If scoring 70% here, should pass the exam.

Knowledge based videos on targeted areas that perform poorly

Written by AKT examiners

Research shows increased pass rates by trainees using this.

Timing of watching videos – not 3am!

Summary

About half of registrars pass “under their own steam”.

So half need more support.

Early intervention – passing with the fewest number of attempts and least stress is the aim.

Diagnosis first – then change preparation strategy.

Watch out for the HEEYH traffic lights approach; please help it to become more widely known.



GOOD

LUCK!