

**AKT**

**DR SEB PILLON**

# RCGP AIT

- <https://youtu.be/lakcIaTOQNs>

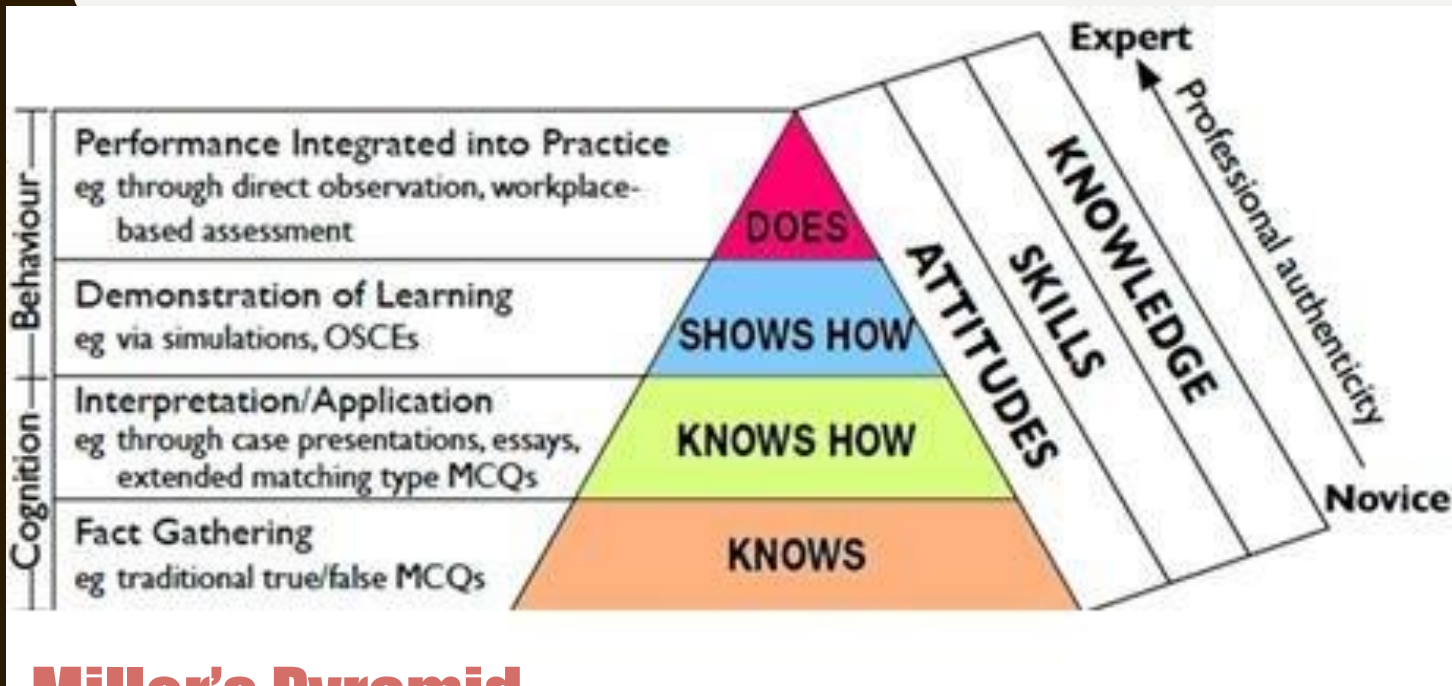
# IS THERE PERHAPS A “COLLEGE” OF GENERAL PRACTICE?

- Ask yourself, have I looked at the RCGP Curriculum?
  - This should form the basis of your preparation; knowing of what is expected of you is half the battle won.
- The RCGP does reports of areas people have struggled, and given that, it's fair to assume these areas will come up again!
- <https://www.rcgp.org.uk/training-exams/training/gp-curriculum-overview.aspx>



## THE AKT FORMAT

- The Applied Knowledge Test (AKT) forms part of the MRCGP. It is a summative assessment of the knowledge base that underpins independent general practice in the **United Kingdom within the context of the National Health Service**.
- The AKT is a computer-based test of **three hours and ten minutes** duration comprising **200 question items**.
- It is delivered three times a year at 150 Pearson VUE professional testing centres across the UK.
- Approximately **80% of question items will be on clinical medicine, 10% on evidence interpretation** (including the critical appraisal skills needed to interpret research data) and **10% on primary care organisational issues** (including administrative, ethical, regulatory and statutory frameworks).
- All questions address important issues relating to **UK general practice** and focus mainly on **higher order problem solving** rather than just the simple recall of basic facts.



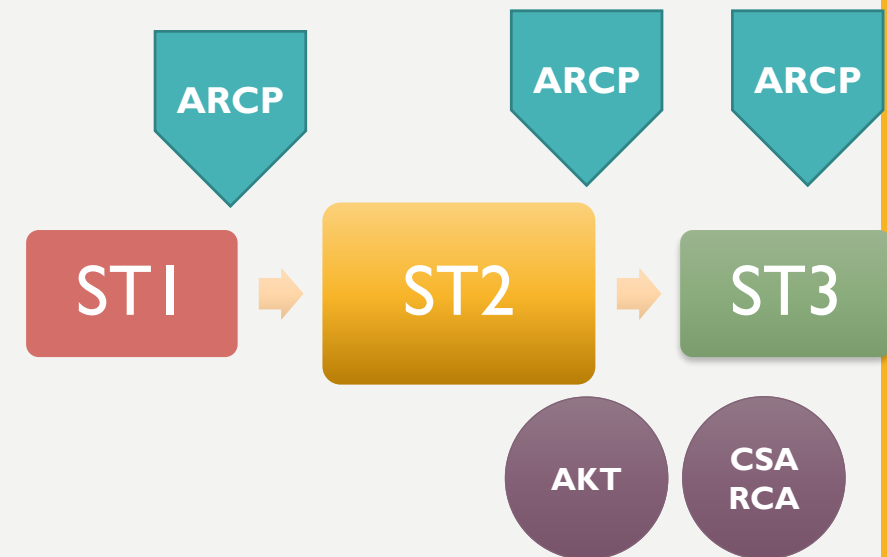
**Miller's Pyramid**

## PROGRESS TO CCT

WBPA (Portfolio)

CSA/RCA (Clinical exam)

AKT (MCQ)



# RCGP QUESTION REFERENCE SOURCES

- GP Curriculum - latest version
- Content Guide for the AKT
- BNF
- GMC Good Medical Practice
- RCGP Essential Knowledge Updates
- NICE guidelines
- SIGN guidelines
- BMJ Review articles & original papers
- BJGP
- Cochrane
- Vaccine update newsletter ([www.gov.uk](http://www.gov.uk))



# PRINCIPLES FOR QUESTION CONSTRUCTION

- Relevance
  - The AKT should be relevant to mainstream general practice
- High prevalence
  - Any topic covered can be one which occurs commonly
- High impact
  - One which is significant but perhaps less common

# GENERAL PRINCIPLES FOR SUCCESS

- Time management is vital
  - A clock is shown on the test screen
    - Watch the countdown carefully
  - There is an average of 57 seconds per question
    - Some questions can be answered far quicker than others
  - If the answer isn't obvious immediately, flag it and move on
  - Reserve time to return to unanswered questions at the end
  - A calculator has also been added for questions where arithmetic might be needed



# GENERAL PRINCIPLES FOR SUCCESS

- Read the questions carefully
  - Marks are lost easily by skim reading, misinterpreting the question or failing to extract the key features in a clinical scenario
- IMGs who read more slowly might want to flag long or verbose questions and return to them later
  - These take up more time per question and impact negatively on mark acquisition



In general, it is better for candidates (particularly IMGs) to concentrate on the clinical medicine questions

Taking all factors into account, these offer the highest return in terms of actual marks



Go through unanswered questions a second time using the review screen

There is no negative marking, so do not leave any questions unanswered



Try and check for obvious errors if there is still time

Misreading or misinterpreting questions is not uncommon under stress

# GENERAL PRINCIPLES FOR SUCCESS



# AKT QUESTION TYPES

**ADAPTED FROM** IAIN LAWTHOR

[HTTPS://.MYSURGERYWEBSITE.CO.UK/WEBSITE/IGP604/FILES/  
PASSING\\_THE\\_MRCGP\\_AKT\\_-\\_MORE\\_THAN\\_JUST\\_REVISION.PPT](https://.mysurgerywebsite.co.uk/website/IGP604/files/passing_the_mrcgp_akt_-_more_than_just_revision.ppt)

# QUESTION FORMATS

## SBA

- **Single best answer (SBA)**
  - One answer is correct and is based on national (not local) guidance or best practice
  - Other options might be plausible, but are inserted as “distractors”
  - If the question is a clinical case scenario, pattern recognition will apply

# SBA EXAMPLE

- 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

# SBA WORKING

- 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*.
  - In this case, the skin changes could be consistent with Addison's disease and the lethargy could be a very relevant symptom in hypothyroidism or diabetes mellitus. However, only haemochromatosis would be consistent with all of the features presented
  - Practice **keyword information extraction**

# QUESTION FORMATS

## MBA

- **Multiple Best Answer (MBA)**
  - The candidate is asked to pick more than one correct answer
  - Any number of answers might apply
  - Usually these answers are deemed more likely to apply than the others

## **MBA EXAMPLE**

- Specialist referral is **MOST APPROPRIATE** for which **TWO** of the following children? Select **TWO** options only.
  - A A four-week-old boy whose mother reports he does not smile
  - B A four-month-old girl who cannot grasp an object when it is placed in her hand
  - C A four-month-old boy who cannot sit unsupported
  - D A two-year-old girl who cannot hop
  - E A three-year-old boy who cannot combine words into a simple sentence



# **MBA WORKING**

- In this question, answers B and E are correct
  - Here, clinical knowledge is required, but a systematic approach to eliminating much less likely answers will identify correct answers from distracting ones
  - Not smiling at 4 weeks of age, being unable to sit unsupported at 4 months and being unable to hop at an age of 2 years would not raise concerns
  - Answers A, C and D are therefore much less likely

# QUESTION FORMATS

## EMQ

- **Extended Matching Questions (EMQ)**
  - These questions contain a list of possible options
  - Most commonly, there will be two or more scenarios and the candidate is asked to choose the **MOST** appropriate option that **BEST** matches each given scenario
  - Each option might be used once, more than once, or not at all

# EMQ EXAMPLE

- A. Cerebral artery aneurysm
- B. Cerebral glioma
- C. Drug-induced
- D. Graves' disease
- E. Ischaemic stroke
- F. Multiple sclerosis
- G. Myasthenia gravis
- For the patient described, select the **SINGLE MOST** likely diagnosis from the list of options:

# EMQ EXAMPLE

- A. Cerebral artery aneurysm
- B. Cerebral glioma
- C. Drug-induced
- D. Graves' disease
- E. Ischaemic stroke
- F. Multiple sclerosis
- G. Myasthenia gravis
- For the patient described, select the **SINGLE MOST** likely diagnosis from the list of options:
- I. A 35-year-old man who is a non-smoker, suddenly develops a severe headache and double vision. His right pupil is fixed and dilated.

# EMQ EXAMPLE

- A. Cerebral artery aneurysm
- B. Cerebral glioma
- C. Drug-induced
- D. Graves' disease
- E. Ischaemic stroke
- F. Multiple sclerosis
- G. Myasthenia gravis
- For the patient described, select the **SINGLE MOST** likely diagnosis from the list of options:
- 2. A 48-year-old woman has transitory double vision towards the end of most days. She smokes 10 cigarettes per day. She has vitiligo and hypothyroidism.

# EMQ WORKING

- In this question, answers A and G are correct
  - In the first case, subarachnoid haemorrhage from a ruptured cerebral artery aneurysm is the most likely cause
  - In the second case, the autoimmune, social and medical history information suggests myasthenia gravis as the most likely cause
- As with SBA questions, practice with pattern recognition is vital in preparing for these questions

# QUESTION FORMATS

## COMPLETION

- **Table or algorithm completion**
  - These questions require candidates to pick several options from a list
  - These are used to complete an algorithm on the screen or fill in blanks in a process
  - The structure of the question will dictate whether the order of answers is important or not

# TABLE OR ALGORITHM EXAMPLE

- MATCH EACH drug to the MOST LIKELY side effect
  - A. Diclofenac
  - B. Hydroxychloroquine
  - C. Infliximab
  - D. Methotrexate

Side effect	Most likely causative drug
Bone marrow suppression	
CVA	
Retinopathy	
Septicaemia	



# TABLE OR ALGORITHM WORKING

Side effect	Most likely causative drug
Bone marrow suppression	Methotrexate
CVA	Diclofenac
Retinopathy	Hydroxychloroquine
Septicaemia	Infliximab

- All four listed side-effects have to be placed correctly to gain one mark

# QUESTION FORMATS

## PICTURE

- **Picture format**
  - A picture is given which represents a common condition
  - A brief clinical summary is presented and the candidate is asked to pick the most likely answer
  - The picture will try to present a highly typical appearance
  - The picture will be in colour and of high resolution
  - Dermatology cases are by far the commonest

# PICTURE FORMAT EXAMPLE

- Skin infections in children
  - An eight-year-old child has had a localised rash around the nose for two days.



# PICTURE FORMAT EXAMPLE

- Which is the SINGLE MOST appropriate MINIMUM number of days that this child should be kept away from school once treatment has started?
- Select ONE option only
  - A 1
  - B 2
  - C 3
  - D 5
  - E 7

# PICTURE FORMAT WORKING

- Answer: B (2 days)
- Once treatment starts, the earliest a child can return to school is after 2 days, provided there is a good response to treatment
- Practical knowledge of incubation and quarantine periods will be required and is frequently asked by parents

# QUESTION FORMATS

## DRAG AND DROP

- **Drag and drop**
  - These questions follow much the same format as Table or Algorithm completion
  - In contrast, rely on simple drag and drop answers to complete the fields

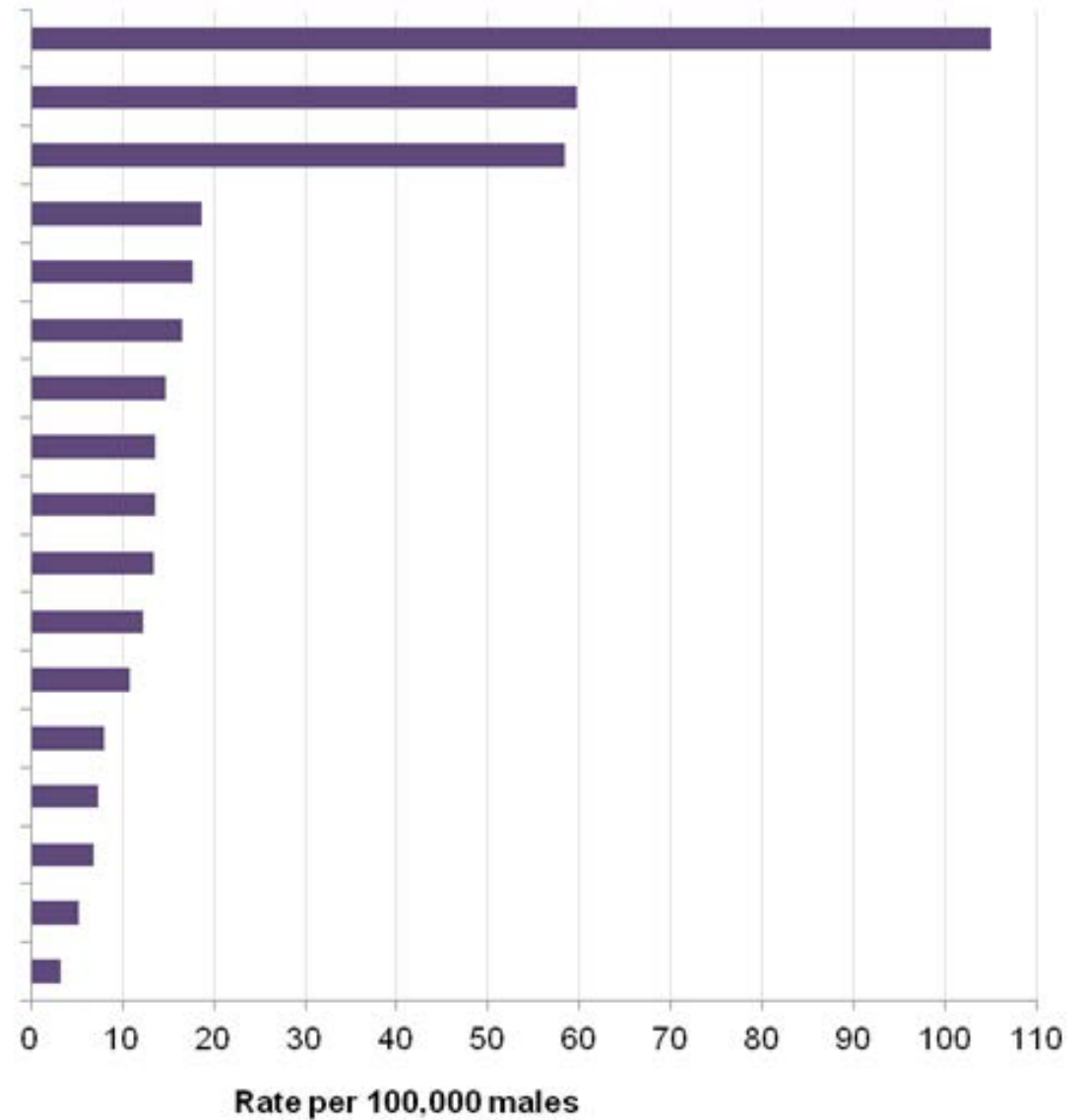
# QUESTION FORMATS

# DATA INTERPRETATION

- **Data interpretation**
  - Typically, these questions relate to groups of patients with chronic conditions
  - The understanding of common statistical terms will be tested
  - Information is normally presented as a graph, data plot or bar chart
  - Some variation might occur where clinical data is presented as laboratory results relating to a particular clinical case

# DATA INTERPRETATION EXAMPLE

- The following graph shows age-standardised **INCIDENCE** rates for common cancers in males in the United Kingdom (2008-2010)





# DATA INTERPRETATION EXAMPLE

- Which SINGLE cancer is represented by the bar labelled I? Select ONE option only
  - A Bladder
  - B Colorectal
  - C Lung
  - D Non-Hodgkin's lymphoma
  - E Prostate

# DATA INTERPRETATION WORKING

- Answer: E (Prostate)
  - It is important to know about the epidemiology of common cancers
  - This includes an understanding of terms such as incidence, prevalence and mortality rates
  - Research and statistics questions are designed to test an understanding of data and different ways it might be presented and interpreted

# DATA INTERPRETATION WORKING

- A revision of common statistical terms is vital
  - Examples might include sensitivity, median and mean, numbers needed to treat and others
- Overall, most candidates score fewer marks in these areas
- Although this domain accounts for only about 10% of questions, a strong performance can boost overall scoring disproportionately
- This can be of great value to IMGs
  - The question format is more visual and diagrammatic, reducing the impact of inherent linguistic factors

# QUESTION FORMATS

## FREE TEXT

- **Free text**
  - These questions require a text answer to be added
  - From a marking perspective, they avoid the simple random guess approach, but the marking can become slightly less objective
  - IMGs might find these questions more challenging and also time consuming
  - Consider these factors when tackling such questions early in the examination
    - Using a flag, move on and return later strategy is helpful

# QUESTION FORMATS

# RANK ORDERING

- **Rank ordering**
  - Questions such as these will ask candidates to rank a number of options in ascending or descending order
  - There might be a list of potential orders to select from, or the candidate might be required to list their suggested order in free text

# RANK ORDERING EXAMPLE

- The list below contains four commonly prescribed topical steroid preparations
  - 1 Clobetasol propionate 0.05%
  - 2 Clobetasone butyrate 0.05%
  - 3 Hydrocortisone 0.5%
  - 4 Hydrocortisone butyrate 0.1%

# RANK ORDERING EXAMPLE

- Which of the following represents the order of preparations from LEAST to MOST potent steroid?  
Select ONE option only
  - A 3,2,4,1
  - B 3,4,1,2
  - C 3,4,2,1
  - D 4,2,3,1
  - E 4,3,1,2
  - F 4,3,2,1

- 1 Clobetasol propionate 0.05%
- 2 Clobetasone butyrate 0.05%
- 3 Hydrocortisone 0.5%
- 4 Hydrocortisone butyrate 0.1%

# RANK ORDERING WORKING

- In this case, answer A is correct (3,2,4,1)
  - 3 Hydrocortisone 0.5%
  - 2 Clobetasone butyrate 0.05%
  - 4 Hydrocortisone butyrate 0.1%
  - 1 Clobetasol propionate 0.05%
    - Hydrocortisone is a mild topical steroid,
    - Clobetasone butyrate (Eumovate) is moderate strength,
    - Hydrocortisone butyrate (Locoid) is potent
    - Clobetasol propionate (Dermovate) is very potent





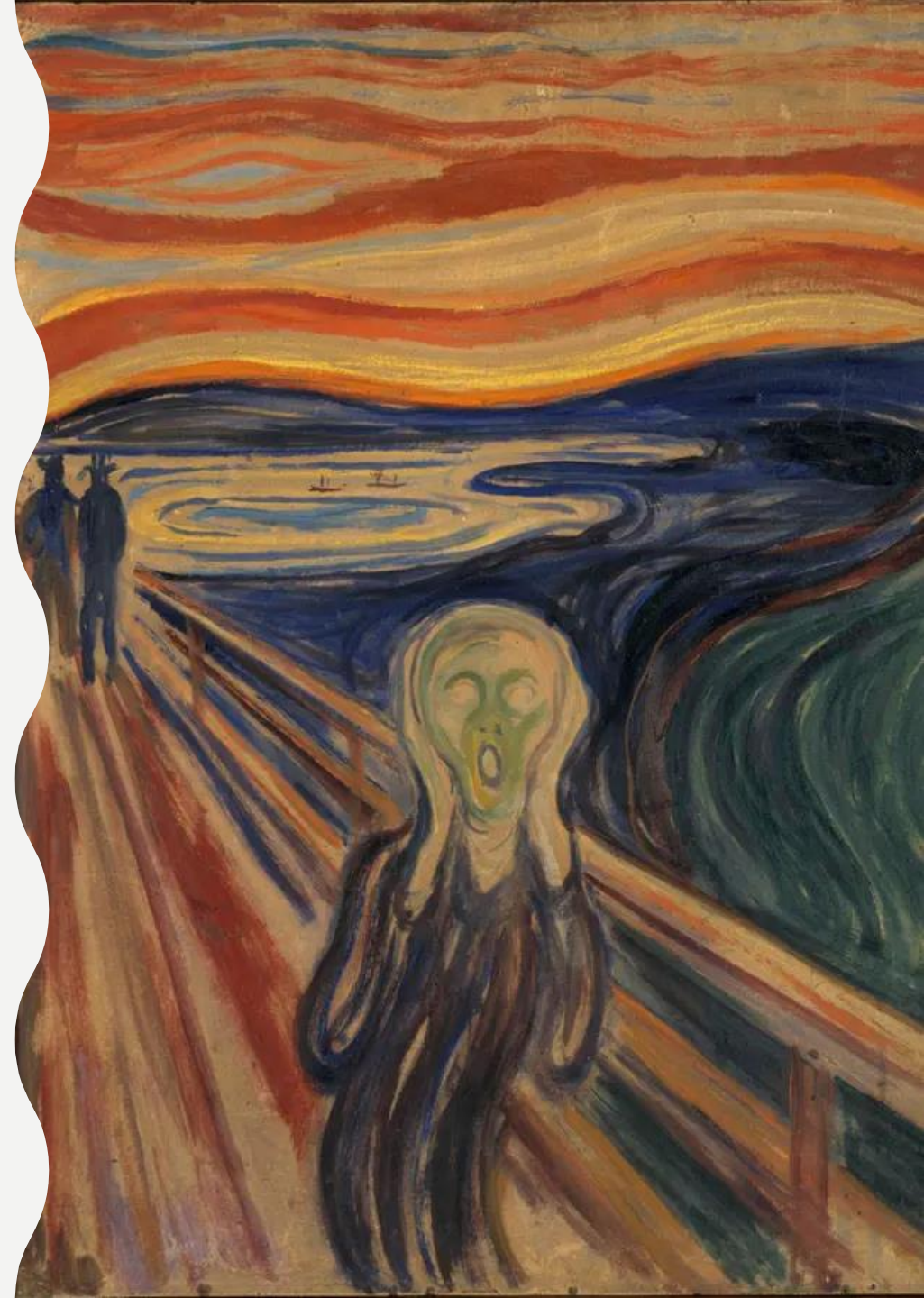
# TIPS FOR AKT REVISION

**ADAPTED FROM**

[HTTPS://ARORAMEDICALEUCATION.CO.UK/10-KEY-TIPS-TO-PASS-YOUR-AKT-EXAM/](https://aroramedicaleducation.co.uk/10-key-tips-to-pass-your-akt-exam/)

# FACE YOUR FEARS

- What do you normally start revising?
- We all love to revisit things we know and do the again
- Start with the topics you hate first



# TARGETS

- Set goals and stick to them
- Don't spend longer on a revision timetable than revising...

	MON	TUES	WED	THURS	FRI
	school	school	school	school	school
	media	chemistry	media	maths	english
5:30	english	chemistry	media	maths	english
6:00	=	=	maths	english	media
6:30	english	english	=	=	=
7:00	maths	english	=	=	chemistry
7:30	=	=	english	chemistry	=
8:00	=	=	physics	chemistry	=
8:30	maths	biology	=	=	chemistry
9:00	maths	maths	maths	biology	physics
	=	=	=	=	=
	biology	maths	biology	biology	phys*
		physics	biology	media	

# SWITCH IT UP



SUBSCRIBE TO A QUESTION BANK, BUT ALSO USE BOOKS IN YOUR PRACTICE LIBRARY AND OTHER SOURCES OF QUESTIONS YOU CAN FIND



VARIETY IS THE SPICE OF LIFE



GET USED TO THE SAME TOPIC BEING ASKED ABOUT IN A DIFFERENT WAY



# EYES ON THE CLOCK

- The AKT is a timed exam, so build that in to your revision
- We see patients at short intervals and get good at recognising relevant information and knowing what is missing to help us build a picture of what is wrong
- Don't spend too long poring over questions
- Time pressure may help you focus



# VISUALISE



WHO REMEMBERS NAMES BETTER THAN  
FACES?



A LOT OF MEDICINE IS PATTERN  
RECOGNITION AND THEN APPLICATION  
OF A GENERAL RULE



TRY TO VISUALISE THE PATIENT  
DESCRIBED IN SCENARIOS/VIGNETTES,  
AND YOURSELF IN THE GP CHAIR  
MAKING A DECISION



# WORDS MATTER

- Beware your subconscious bias; we often word-match and decide on answers very quickly.
  - i.e. you may see the word ‘iron’ in the question and your eyes flick to the answers – you see ‘haemochromatosis’ and your mind is fixed.
- The small words in these questions can change the answer in a big way:
  - “Usually”, “commonly”, “most often” are examples of words that may change the answer to something else – don’t miss them in eagerness to tick the right answer.

# DON'T DO A ROBBIE...

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Going solo doesn't always work out

---

AKT can be a lonely affair; get home from work, open your book or website, feel alone, isolated and frustrated.

---

Get together with colleagues at least once a week to go over challenging topics, boost each other's confidence and make plans for the next week.

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Realising that you are not the only one in this boat, as well as understanding that others also find it a challenge can really help.

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Push each other, test each other, teach each other.

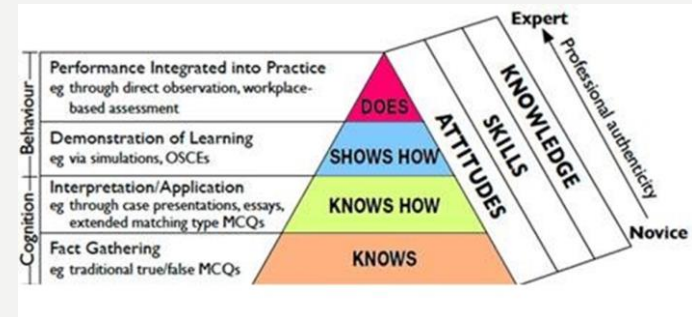


# BELIEVE IN YOURSELF

- Confidence is a key part of passing any exam – regularly telling yourself that you won't pass, that you can't pass, but somehow hoping that you will, just makes your preparation that much harder.
  - Regular pep-talks, reminding yourself that you actually know a huge amount and convincing yourself that you will easily pass, will push you that bit harder.
  - Telling yourself that it is impossible, that there is too much and that you will never understand X, Y and Z will only work against you.
  - Treat yourself like you would a colleague
    - If you're struggling, say something nice, focus on the positives and get your head back in the game
- 

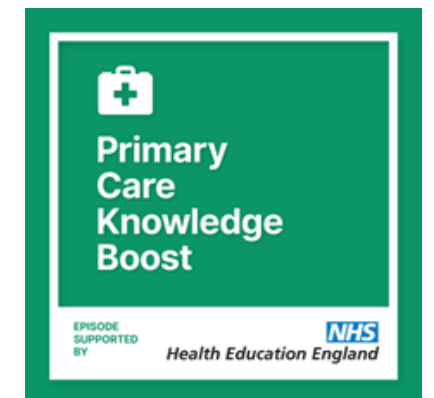
# IT'S IN THE NAME...

- “Applied” Knowledge Test
- This isn't just regurgitation of facts, it the application of them:
  - Clinically
  - Evidence-based
  - Managerially
- Put yourself in the mindset of a GP
  - this is why sometimes more than one answer may seem appropriate



# AKT

- Assess your needs
  - GP Self Test
  - <https://elearning.rcgp.org.uk/course/index.php?categoryid=56>
- Think long-term, use the session plan to figure out where your gaps may be
- Don't rush, people tend to be more likely pass on their first attempt...but also much more likely to pass if they have completed a GP-based rotation



Select an option

Pick a type of test

Revision Test

Curriculum-wide Learning Needs Assessment

Lucky Dip

Topic Specific

FAQs

User Guide

Feedback

About the questions

Acknowledgements

RCGP website  
Jobs and careers  
RCGP courses and events  
RCGP Learning

RCGP Annual Conference  
British Journal of General Practice  
BJGP Open

Contact  
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# RESOURCES

- The first section of the Oxford Handbook of GP is really useful for all the contract info, sick note info etc.
- Learn the rules re flying and driving & childhood illness school isolation
- NICE guidelines for: cancer, heart failure, chest pain, COPD, asthma (inc. paed), hypertension and diabetes.
- Do the GP Essential Knowledge Updates - and then do them again. The feedback for recent AKT's has said that they advise trainees to use these to revise.
- BNF - book or website. Read and inwardly digest the chapter on palliative care. You need to know a lot about side effects and some about drug interactions. Know the doses for ben pen, adrenaline, piriton and hydrocortisone for babies, children and adults. Know the choking algorithm. <http://www.bnf.org/bnf/index.htm>
- <https://prodigy.clarity.co.uk/home>
- Useful revision tips <http://www.bradfordvts.co.uk/mrcgp/akt/>



# ANY QUESTIONS?

[HTTPS://ELEARNING.RCGP.ORG.UK/  
OURSE/INDEX.PHP?CATEGORYID=56](https://elearning.rcgp.org.uk/course/index.php?categoryid=56)