

MRCGP Applied Knowledge Test (AKT) Feedback Report AKT 49, October 2023

The AKT core group provides feedback on overall candidate performance after each exam sitting, via the RCGP website and direct to Deanery/LETB Educators. We also highlight areas of general interest related to the exam. This feedback is intended to be helpful to all those involved in education and training, particularly AiTs themselves. We welcome comments on the feedback to the email address at the end of this report.

For important general information about how to prepare for the AKT exam, including specifically how trainers can better help AiTs, descriptions of the exam format and content, as well as 'frequently asked questions', please see the weblinks throughout the AKT page of the MRCGP site.

The feedback consists of a report on the current sitting of the exam, followed by a section of general advice and feedback to candidates. Following AKT 49, we have updated the general advice on page seven about immunisation testing.

The AKT 49 exam was held on 25th October 2023 and was taken by 2070 candidates.

Statistics AKT 49

Range of scores 65 to 194 out of 200 questions
Mean overall score 147.56 marks (73.78%)

Mean scores by subject area:

- 'Clinical knowledge' 118.93 (74.33%) (160 questions)
- 'Evidence-based practice' 14.85 (74.26%) (20 questions)
- 'Organisation and management' 13.79 (68.94%) (20 questions)

PASS MARK 140

PASS RATES

Candidates (numbers)	Pass rate
All candidates (2070)	68.16%
UKG first-time takers (615)	88.94%

Other key statistics:

Reliability (Cronbach α coefficient) = 0.92
Standard error of measurement = 5.69 (2.85%)

Performance in key clinical areas – AKT 49

Providing feedback, which is educationally useful, but which does not undermine the security of test questions is not easy. We have highlighted below general areas of good performance, as well as areas where there is room for improvement.

Comments are referenced to the current RCGP curriculum. Many topics appear in several places throughout the curriculum, and we have not listed all of these.

Improvements

In AKT 49, candidates performed better than previously in questions related to:

- Understanding confidentiality (Leadership and management)
- Recognising symptoms of possible cancer/cancer risk (People with long term conditions including cancer)
- Diabetes mellitus (Metabolic problems and endocrinology)
- Common and important MSK diagnoses (Musculoskeletal health)
- Contraception (Sexual health)
- Differentiation of chest pain (Urgent and unscheduled care)

Areas causing difficulty for candidates

As well as providing feedback after each AKT exam, we produce a summary of areas which have caused more difficulty for candidates over the last five years. This is updated after every AKT exam and published on the AKT website. The summary allows candidates an “at a glance” overview of areas where there is room for improvement, without the need to go back over 15 separate, archived AKT reports. Please note that some themes often recur, including, once again, in the feedback provided below. We encourage use of this summary resource which can be found in the reports section at:

<https://www.rcgp.org.uk/mrcgp-exams/applied-knowledge-test/further-help-support#AKT-feedback-reports>

Before commenting on specific difficulties noted in AKT 49, we would like to give three general reminders. All of these are mentioned in the “General advice” section of this report.

- Nearly one third of questions can have a significant therapeutic component such as drug monitoring, adverse effects or interactions. Be aware of important side effects and interactions, for example those highlighted as “red” in the BNF
- Please fact check drug dose and other calculations - is the result compatible with real life?
- Some questions require identification of “normal”, or an awareness that no investigation is required for the situation described

Summary of areas causing difficulty in AKT 49

DMARD prescribing

Quality improvement

Vaccine contraindications

Eating disorders

UTI diagnosis and management

Asthma diagnosis and management

Improving quality, safety and prescribing (Professional topic)

This curriculum area includes several important themes on which we regularly feed back. Some areas related to safe prescribing, such as drug monitoring, often cause difficulties for candidates. In the case of AKT 49, candidates lacked awareness of safe prescribing requirements for DMARDs.

Aiming to improve the quality of care provided is a core part of the GP professional role. Candidates should have awareness and understanding of commonly used quality improvement tools and methodologies. This area caused some difficulty in AKT 49.

Population and planetary health (Professional topic)

Whilst not requiring details of immunisation schedules, we do expect that candidates will be familiar with absolute contraindications to common, routine vaccinations. This has been our position for some time. Candidates found this area difficult in AKT 49. As noted at the start of this report, we have updated our guidance on the knowledge that we expect candidates to have about vaccinations/immunisations to make this even clearer. (See page seven).

Children and young people (Life stage topic)

Eating disorders can present with a range of symptoms, signs and laboratory findings. In AKT 49, candidates were uncertain about differential diagnosis in young people and overlooked the likelihood of eating disorder.

Infectious disease and travel health (Clinical topic)

After AKT 48, we fed back on difficulties with evidence-based prescribing for UTI. In AKT 49, candidates had difficulty more generally with this area, including overlooking the possibility of UTI in atypical presentations and uncertainty about appropriate antibiotic use for treatment of UTI in children. Candidates should be familiar with the comprehensive national guidance on this common condition, which covers both acute and recurrent infections, at different life stages, as well as lower and upper UTIs.

Respiratory health (Clinical topic)

In AKT 49, candidates had difficulty identifying acute exacerbation of asthma and making appropriate changes to therapy. There were problems with correctly interpreting peak flow monitoring records in this regard. Similar candidate difficulties were noted after AKT 47 and we provided feedback on that occasion also.

Asthma is a good example of a long-term condition where for most patients, for most of the time, care will be provided from within the primary care team. However, despite the team approach, GPs must be up to date and confident with asthma diagnosis and management, given its high prevalence, range of presentations from mild to severe, and role of the GP as possible mentor/prescriber for other team members.

Past 12 months (AKTs 47-49)

After each of the last three sittings of the AKT exam, we have highlighted a need for improvement regarding:

- Improving quality, safety and prescribing

The feedback concerned drug monitoring, side effects, safe prescribing of drugs used in long term conditions, antimicrobial prescribing/stewardship, quality improvement methodologies

After two of the last three sittings of the AKT exam, we have highlighted a need for improvement regarding:

- Children and young people

Prescribing for children with long term conditions, child development, eating disorders

- Respiratory health

This related to asthma diagnosis and management, including acute exacerbations

We hope that candidates will not overlook these and other important areas in their exam preparation, guided by the GP Curriculum, particularly the Knowledge and Skills sections within each Topic Guide and the [super-condensed GP Curriculum Guides](#).

Misconduct

Although misconduct in professional examinations is rare, we would warn candidates that it is taken very seriously and a full investigation of any allegation will be undertaken, including reviewing CCTV footage taken in the test centres. Please be mindful to respectfully and carefully follow the instructions outlined by Pearson VUE test centre staff. We do not expect to hear reports of rudeness to test centre staff and will act if it is reported to us.

The MRCGP examination regulations and the code of conduct for both the AKT and SCA assessments give detailed information about misconduct, including the possible penalties for misconduct, in the expectation that candidates will exercise an approach consistent with standards expected by the General Medical Council.

See [MRCGP Examination Misconduct Policy and Procedure for AKT and SCA](#) for more details.

AKT Core Group November 2023
Comments or questions to:
exams@rcgp.org.uk

***Please see the following pages for more general advice
and feedback points about the AKT***

General advice and feedback points

- We realise that there are areas throughout the curriculum with which some candidates are less familiar or experienced than others. This may be due to differences in undergraduate or postgraduate training both within and outside of the UK, and the many varieties of clinical experience. We encourage candidates who are in this position, for example, around women's health issues, data interpretation, the application of basic medical statistics, evidence-based practice, general practice organisation and management, or any other topic, to identify these early in their training as learning needs where specific training or updating may be required.
- We remind candidates that the AKT tests for appropriate and cost-effective management, so sometimes the correct answer is **not** to investigate, prescribe or refer. Candidates find this option a difficult one to choose, as is sometimes the case in clinical practice.
- Some questions may relate to clinical situations such as management of mildly abnormal blood test results. As described above, it may be that significant additional testing is not required and this may be the correct answer option.
- In clinical practice, multiple 'screening' blood tests are sometimes requested in a non-discriminatory way without considering specific, likely possibilities. In the AKT, some questions will ask candidates to choose only **one** test from a list of answer options including other tests, to confirm the most likely diagnosis from the scenario given. **The question stem will make clear that what is being asked for is the **most** appropriate investigation to confirm the diagnosis, rather than asking for all the possible (but lower yield) screening tests.**
- We will ask about abnormal examination findings, including significant retinal examination findings. This question format will generally be photographs. We may also ask about normal findings, and some of these will be illustrated by photographs without any abnormality. Photographs of skin problems will be from a range of different ethnic backgrounds.
- We may ask about investigations commonly undertaken in secondary care after patients are referred, for example, for investigation of suspected cancer. We do not expect candidates to have detailed knowledge of these investigations, but we would expect that candidates have sufficient awareness to be able to respond to patient queries about possible further tests when a referral is discussed. The knowledge which informs this discussion can have a significant impact on the patient's decision to move forward with investigation for what might be a serious underlying problem.
- We also remind candidates that drug choices should be those that reflect evidence-based, widespread, and accepted practice in primary care, and not those that a secondary care doctor with specialist skills and experience might sometimes make. There may be questions involving drug dose and volume

calculations, where the maths will not be complicated. Ensure that any decimal points are in the correct place - this advice applies whether or not you choose to use the available calculator. Please reality-check your answer, especially about the volume to be administered. We receive answers to these calculations which are quite clearly wrong and by dangerously large amounts.

- **Be aware of important drug side effects and severe interactions (such as those marked as red in the BNF).**
- Our approach to testing around immunisations has moved away from expecting detailed knowledge of **infant** immunisation schedules, as these have become more complex over recent years, and because in some parts of the UK immunisation provision is no longer primary care led. However, candidates are expected to be **familiar with any recent general developments in immunisation programmes. We will test knowledge** of important indications, contraindications and side-effects **of vaccines for all age groups**. Knowledge of occupational vaccine requirements, as they apply to GP settings, is also expected, as well as of issues related more broadly to immunisation such as consent and patient group directions.
- Regarding non-clinical areas of the exam, overall, most candidates do well in questions on data interpretation and general practice administration. We use a range of resources to test data interpretation, including the types of graphs and tables regularly sent to practices from local health service organisations and health boards. We would encourage all candidates, and in particular those who may feel they have gaps in their knowledge in this area, especially whose training has not included data interpretation in a UK setting, to use the following 2019 resource produced by the AKT group
<https://www.rcgp.org.uk/getmedia/e2ba263c-385f-4e3c-9fc4-7bd13beeca40/Evidence-and-data-interpretation-in-the-AKT.pdf>
- The GP curriculum and [super-condensed topic guides](#) gives further guidance about professional and administration topics. **GP trainers can help trainees prioritise areas across the GP curriculum and** provide useful help to candidates by sharing the content of their administrative workload with trainees, many of whom may be unfamiliar with the range of administrative tasks with which GPs engage.
- Safeguarding issues will be tested in the AKT exam and candidates are reminded to regularly engage in learning activities. Training requirements for child and adult safeguarding are detailed elsewhere:
<https://www.rcgp.org.uk/mrcgp-exams/wpba/cpr-aed-safeguarding#childadultsafeguarding>
- We will continue to test on new and emerging knowledge relevant to primary care, and that includes areas such as COVID-19.

- Almost all candidates answer every question in the AKT exam. We hope that candidates have a good level of knowledge and can apply this knowledge confidently when selecting answers. However, there is no negative marking in the AKT exam and marks are not deducted if the chosen answer option is wrong.