**Feedback on the April 2016 MRCGP Applied Knowledge Test (AKT 27)**

After each sitting of the exam, the AKT core group provides feedback on overall candidate performance via the College website and direct to educators via Deaneries. We also highlight areas of general interest related to the exam. We hope that this feedback is helpful to all those involved in education and training, particularly GP trainees themselves, and we welcome comments on the feedback to the email address at the end of this report.

**UK and devolved Home nations**

As a general point, we would like to reassure candidates that questions are carefully constructed and checked at each time of use, to ensure that they are applicable across the UK and encompass clinical and organisational guidance for all four home nations.

The AKT 27 exam was held on 27th April 2016 and taken by 1478 candidates.

**Statistics**

Scores in AKT 27 ranged from 79 to 190 out of 200 questions with a mean overall score of 72.6%.

The mean scores by subject area were:
- ‘Clinical medicine’ 73.2% (160 questions)
- ‘Evidence interpretation’ 69.7% (20 questions)
- ‘Organisational’ 70.8% (20 questions)

The pass mark for AKT 27 was set at 135 with pass rates as below:

<table>
<thead>
<tr>
<th>Candidates (numbers)</th>
<th>Pass rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All candidates (1478)</td>
<td>72.5%</td>
</tr>
<tr>
<td>ST2 first-time takers (1102)</td>
<td>77.4%</td>
</tr>
<tr>
<td>ST3 first-time takers (87)</td>
<td>74.7%</td>
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</tbody>
</table>

Other key statistics from this test:

- Reliability (Cronbach α coefficient) = 0.91
- Standard error of measurement = 5.71

**Learning resources**

1. **MRCGP AKT website**

   **A. Content Guide**

   As referred to in previous exam reports, the [AKT content guide](https://www.mrcgp.org.uk) is available on the College website (current version August 2014). We would recommend that candidates and trainers use this document in the ways we described in the [January 2013 AKT Feedback Report](https://www.mrcgp.org.uk). Candidates who have not had much
exposure to research or statistics in their medical education are encouraged not to overlook topics in section 2 of the guide. ST2s who have spent less time in GP may need to review administrative topics which also feature as a separate section in the Guide.

B. Exam tutorial
There is a generic tutorial on the Pearson VUE website to help candidates familiarise themselves with navigating the computer-based test format. On the AKT section of the MRCGP website, the tutorial which begins each AKT in the exam centre, is now available. We strongly recommend that candidates work through this tutorial on the website to maximise their familiarity on the day with the exam format, question types, and how to complete answers on the screen. It also shows how to mark questions for review and practising this will save time on the day. However, it is still important to view the tutorial on the day to ensure that candidates are familiar with the exam functionality.

SINGLE MOST likely
Candidates will note from the online tutorial and also from the sample questions that the question stem frequently includes the phrase “Which is the SINGLE MOST likely ..?” referring to a list of options. When the question is about a single most likely diagnosis, candidates should consider the prevalence of a condition when identifying the correct answer. The most serious condition listed may not necessarily be the correct answer if this is less common as it will not be the MOST likely.

Option lists
All the AKT question formats, apart from the free text, require the candidate to identify the best answer(s) from a list of plausible alternatives, using all of the information in the question. There may be other answers which are not included in the option list, but the candidate should focus on the best available answer for the specific question asked; in other words, focus on the options given, and not what is absent.

C. AKT sample questions
Sample questions are available on the AKT section of the website and have recently been updated. Two versions are available, with and without answers, to allow candidates to test their knowledge. The format of questions is the same as that of the AKT, but the proportion of questions on individual topics is not representative of the test as there are only 50 questions.

D. Innovait AKT Podcast
This podcast features interviews with GP trainees who have recently taken the AKT, an examiner and the Deputy Lead for the AKT and provides useful tips on revision and preparation.

E. Preparing to take the AKT
This is a concise guide for trainees preparing to take the AKT and contains a clear overview of what is required.

2. Essential Knowledge resources
Candidates should consider looking at the Essential Knowledge Updates and Essential Knowledge Challenge sections of the RCGP website (RCGP Learning – Online learning) as part of their preparation for the AKT. This will familiarise them with updated guidance and emerging knowledge.

3. National guidance
National guidance such as NICE, SIGN and others are the established reference sources for many AKT questions. As stated earlier, all the questions are checked to ensure that they apply across the UK and would not disadvantage candidates from any of the four Home Countries; the MRCGP is the licensing qualification to work anywhere in the UK.

We would also highlight the use of the BNF for guidance on prescribing, including the more general information in the opening chapters. This may be more accessible and obvious in the printed version. The GMC publication “Good Medical Practice” with its supporting guidance is also an important reference for the AKT exam.

Performance in key clinical areas- AKT 27

Providing feedback which is educationally useful but which does not undermine the security of test items is never easy. However we have highlighted general areas of good performance, as well as areas where there is room for improvement. Both Curriculum and Content Guide references are given.

Improvements

In AKT 27, candidates performed better than previously in –

- Knowledge of benefits and DWP certification (Curriculum statement 2.03 The GP in the wider professional environment, p. 51 Content guide, Administration, ethical and regulatory frameworks).

- Data interpretation (Curriculum statement 2.04 Enhancing professional knowledge, p. 47 Content guide, Research, statistics and epidemiology). This is an ongoing improvement from that noted in AKT 26. We would encourage candidates to use any opportunity to evaluate data such as prescribing information and referral rates.

- Genetics, where we noted that candidates had a good basic knowledge (3.02 Genetics in primary care, p. 18 Content guide, genetics).

- Some topics in contraception (Curriculum statement 3.06 Women’s health, p. 40 Content guide). Candidates are alerted to the new UKMEC guidance which has been recently published and will be a reference source for future tests.

Areas causing difficulty for candidates
Curriculum statement 2.02 Patient safety and quality of care (p.33 Content guide, Pharmaco-therapeutics)

There were several areas related to prescribing which candidates found difficult, and this is an area on which we frequently provide feedback.

Drug interactions continue to be challenging for candidates. AKT will continue to test on this particularly where the interactions are potentially serious. Although computer-generated alerts are now universal, interpreting their implications in co-morbidity and polypharmacy remains a key skill.

Drugs calculations will also continue to be tested and despite (or because of) the introduction of the onscreen calculator, some candidates are failing to do a reality check on their answer.

Candidates had difficulty with regard to management of long term conditions where a step up on treatment was required for an exacerbation. GPs are sometimes asked by secondary care to prescribe drugs with which they are less familiar, or drugs that are used following advice in shared care guidelines, and should be aware of indications/interactions, especially as the final responsibility for the prescription remains with the GP.

Curriculum statement 2.03, The GP in the wider professional environment (p. 51 Content guide, Administration, ethical and regulatory frameworks)

As mentioned above, the GMC “Good Medical Practice” is an important publication with which candidates should be familiar, particularly with regard to issues such as consent, capacity, and access to medical records which candidates can find difficult. The areas which may be tested in the exam are listed in the Content Guide. These are topics that may not arise routinely in day-to-day practice and may need special consideration and attention.

Curriculum statement 3.01 Healthy people, promoting health and preventing disease (p. 22 Content guide Infectious Diseases, p.25 Alcohol and substance misuse problems)

Immunisation schedules both for children and adults are currently in a phase of rapid change and candidates appeared unfamiliar with some of these changes, as well as lacking awareness of recommendations for special groups. Although the clinical work of vaccinations is often delegated, GPs need to know the contraindications and schedules to advise parents and patients. Where recommendations have changed, auditing specific target groups may reveal a need for catch-up immunisation.

Candidates also lacked awareness of how to calculate alcohol intake as units. This knowledge is clearly required in order to be able to give appropriate lifestyle advice.
Curriculum statement 3.06 Women’s health (p.40 Content guide)
Candidates were not familiar with some aspects of diagnosis of early pregnancy and management of miscarriage. Although there may be local variations in practice, candidates should be familiar with national recommendations eg NICE.

Curriculum statement 3.16 Care of people with eye problems (p.16 Content guide)
In AKT 27, candidates found difficulty with the primary care management of sudden visual loss. As we stated after AKT 26, candidates should be aware of the presentation and management of common eye conditions, and also importantly should be aware of less common eye conditions requiring urgent action. Although opticians may increasingly be a point of access, GPs are still likely to see emergency cases and have to manage them appropriately.

Curriculum statement 3.17 Care of people with metabolic problems (p.26 Content guide)
We often note difficulties with questions concerning diabetes. In AKT 27, candidates had difficulty with interpretation of glucose tolerance tests. These are used less than previously but are still indicated where HbA1C is not appropriate for diagnosing diabetes such as in pregnancy.

Overall feedback for past 12 months (AKT 25-27)
We have noted room for improvement after each sitting of the AKT over the past year with regard to the following:

2.02 Patient safety and quality of care
This generally concerns medicines management issues and safe prescribing.

We have also noted room for improvement in two out of the past three sittings of the AKT in:

2.03 The GP in the wider professional environment
Generally this relates to administration and regulatory frameworks, and also ethical issues.

3.04 Care of children and young people
This covers areas such as include child development, starting with normality, as well as diagnosis of acute and serious illness, and prescribing for children.
3.06 Women’s Health
Includes areas such as contraception and pregnancy.

3.16 Care of people with eye problems.
Particularly the management of acute eye problems

3.17 Care of people with metabolic problems
Diabetes, both type 1 and type 2 is the recurring theme.

We hope that candidates will not overlook these and other common and important areas in their exam preparation, guided by the curriculum and the content guide.

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. The MRCGP examination regulations and the code of conduct for AKT and CSA 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. Regulations for Doctors Training for a CCT in General Practice

AKT Core group May 2016
Comments or questions can be sent to: exams@rcgp.org.uk