Feedback on the October 2014 MRCGP Applied Knowledge Test (AKT)

After each sitting of the exam, the AKT core group provides feedback on overall candidate performance via the College website and direct to educationalists 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.

The AKT 22 exam was held on 29th October 2014 and taken by 1264 candidates.

Statistics

Scores in AKT 22 ranged from 65 to 190 out of 200 questions with a mean overall score of 73.9%.

The mean scores by subject area were:
- ‘Clinical medicine’ 73.6% (160 questions)
- ‘Evidence interpretation’ 75.4% (20 questions)
- ‘Organisational’ 75.1% (20 questions)

The pass mark for AKT 22 was set at 136 with pass rates as below:

Candidates (numbers) Pass rate

All candidates (1264) 75.7%
ST2 first-time takers (493) 85.6%
ST3 first-time takers (402) 80.6%

For the sake of transparency we also report the other key statistics from this test:
Reliability (Cronbach α coefficient) = 0.90
Standard error of measurement = 5.66

Impact of extra time and the calculator

Candidates taking AKT22 had an extra 10 minutes (190 minutes instead of 180) and also the use of an on-screen calculator. Analysis of the impact of these changes was monitored by overall use of time and also comparing time spent on individual questions.

For overall time, 95.1% of candidates answered all 200 items which is similar to previous tests over the past two years ranging from 95.2% completing all items in AKT17 to 91.6% in AKT21. For the last 10 items, which are most likely to be omitted if time is short, 99% of candidates had completed more than 190 answers and this
has been consistent across the recent tests, so it appears that the extra time has had a minimal effect if any, on candidates completing all the items. Use of the calculator was more difficult to analyse but again the impact appears marginal with the results on questions previously used without the use of the calculator being much the same. There is a possibility that it is increasing the time taken on these questions, although individuals may or may not choose to use it.

At the standard setting meeting which involves external and lay representatives, when the impact of these changes was considered, there was a collective decision that the standard of the AKT should remain the same.

Learning resources

1. Content Guide
As referred to in previous exam reports, the AKT content guide was made available on the College website last year. This is updated each year for the start of the training year. We would recommend that candidates and trainers use this document in the ways we described in the report following AKT 17.

2. Exam tutorial
The tutorial which begins each AKT in the exam centre, is now available on the AKT website. 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.

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 bear in mind that the prevalence of a condition should be taken into account in identifying the correct answer, and that the correct answer may not necessarily be the most serious condition listed, if this is less common than an alternative.

3. 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.

4. Essential Knowledge resources
Candidates should consider looking at the Essential Knowledge Updates and Essential Knowledge Challenge sections of the RCGP website as part of their preparation for the AKT. This will familiarise them with updated guidance and emerging knowledge.
5. National guidance
National guidance such as NICE, SIGN and others are the established reference sources for many AKT questions. We would also highlight the use of the BNF for guidance on prescribing, including the more general information in the opening chapters. The GMC publication “Good Medical Practice” has recently been updated (2013) and with its supporting guidance is also an important reference for the AKT exam.

Performance in key clinical areas- AKT 22
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
Candidates performed better on items concerning asthma and COPD. Respiratory disease is an area which sometimes causes difficulty in the AKT from time to time with regard to questions concerning children as well as adults (Curriculum statement 3.19 Respiratory health, p.36 Content guide, Respiratory problems).

There has been some improvement in knowledge around contraception but this does not include LARC which was highlighted after AKT 21 as an area of difficulty (Curriculum statement 3.06 Women`s health, p.37 Content guide, Sexual health). It would be encouraging to see a sustained improvement across the important area of contraception rather than the ongoing patchy performance.

“Evidence interpretation” items are generally answered well but we noted better understanding of common statistical concepts eg NNT (Curriculum statement 2.04 Enhancing professional knowledge, p.47 Content Guide, Research, statistics and epidemiology).

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

Candidates appeared unaware of their duties and responsibilities with regard to medical reports. Both the BMA and the GMC provide guidance about insurance reports, and confidentiality more generally (see http://bma.org.uk/practical-support-at-work/ethics/confidentiality-and-health-records and http://www.gmc-uk.org/guidance/ethical_guidance/confidentiality.asp).

Using resources effectively and efficiently is also part of the wider GP role. In some questions regarding diagnosis or investigation, candidates chose options which did not reflect cost-effective and best practice.
Curriculum statement 3.01 Healthy people: promoting health and preventing disease (Content guide clinical medicine and p.47 Research, statistics and epidemiology)

Questions on screening were not well answered and there was lack of knowledge around current guidance on the management of obesity. Both of these form part of daily GP work with which candidates should be familiar.

Curriculum statement 3.04 Care of children and young people (p.45 Content guide, Children and young people)

Patients under 15 years of age account for around one in four general practice consultations. While many of these consultations will be for minor, self-limiting problems, GPs have a key role in identifying serious illness as well as rare but important conditions in children. Questions were not well answered on these topics.

Curriculum statement 3.06 Women’s health (p.37 Content guide, Sexual health)

AKT 22 included questions covering a wide range of pregnancy-related topics, such as routine antenatal care, immunisations, diagnosis of clinical presentations during pregnancy and prescribing. Overall the performance was not good in this area. Candidates may lack experience in some aspects of women’s health at the time they are taking AKT but should not overlook this important area in their exam preparation. It is also an area of care that is often delegated to other health professionals but GPs retain the overall responsibility for co-ordinating care, and prescribing

In addition, appropriate prescribing for continence problems caused difficulties and candidates should remember that whatever the condition, new drugs are not necessarily the first choice.

Curriculum statement 3.13 Digestive health (p.11 Content guide, Digestive problems, including nutrition)

After AKT 21, we highlighted the very common problem of irritable bowel syndrome as an area where candidates could improve their knowledge. We would again recommend reviewing NICE guidance in this area, including nutrition.

Curriculum statement 3.17 Care of people with metabolic problems, (p.26 Content Guide, Metabolic and endocrine problems)

It is concerning that questions on diabetes repeatedly cause difficulty in AKT, despite feedback. On this occasion management of acute illness in type 1 diabetes caused problems to candidates. We recommend that candidates review “sick-day rules”. Again this is an area of care often managed by other healthcare professionals and candidates may need to make specific efforts to become involved

Some metabolic and biochemical abnormalities can indicate the possibility of serious underlying disease, such as cancer. Candidates appeared to lack knowledge about the significance of some abnormal blood results.
Overall feedback for 2014: (AKT 20-22)
We have noted room for improvement after each sitting of the AKT over the past year with regard to the following:

3.17 Care of people with metabolic problems
This mostly relates to questions concerning diabetes, particularly the interpretation of test results, and management.

2.03 The GP in the wider professional environment
This covers a range of topics including certification and reports.

Other areas where we have noted room for improvement in two out of the past three AKT sittings are:

3.04 Care of children and young people
Questions which candidates have found difficult include child development and acute and serious illness.

3.06 Women’s health
This includes contraception and more general issues such as continence.

3.13 Digestive health
This relates mostly to irritable bowel syndrome.

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.

http://www.rcgp.org.uk/training-exams/mrcgp-exams-overview/~media/CA3812111032464381CA97138E4A41F4.ashx

AKT Core group November 2014
Comments or questions can be sent to: exams@rcgp.org.uk