RACGP Education

Exam report 2023.2 AKT

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We acknowledge the Traditional Custodians of the lands and seas on which we work and live, and pay our respects to Elders, past, present and future.

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1. Exam psychometrics

Table 1 shows the mean and standard deviation of the entire cohort who sat the exam. These values can vary between exams. The reliability is a measurement of the consistency of the exam.

A candidate must achieve a score equal to or higher than the pass mark to pass the exam. The pass mark for the Applied Knowledge Test (AKT) and Key Feature Problem (KFP) exam is determined by the internationally recognised Modified Angoff method, and outcomes may vary between each exam cycle. The Clinical Competency Exam (CCE) pass mark is determined by the borderline regression method (refer to The Royal Australian College of General Practitioners [RACGP] Education Examination guide for further details).

The 'pass rate' is the percentage of candidates who achieved the pass mark.

The RACGP has no quotas on pass rates; there is not a set number of candidates who may pass the exam. Pass rates may vary depending on a number of variables.

Table 1. Psychometrics

Mean score (%)	74.10
Standard deviation (%)	9.86
Reliability*	0.89
Pass mark (cut score %)	64.86
Pass rate (%)	82.74
Number sat	927

*The exam reliability is expressed as a value between 0 and 1, in line with international best practice in assessment reporting.

2. Candidate score distribution

The histogram shows the range and frequency of final scores for this exam (Figure 1). The vertical blue line represents the pass mark.

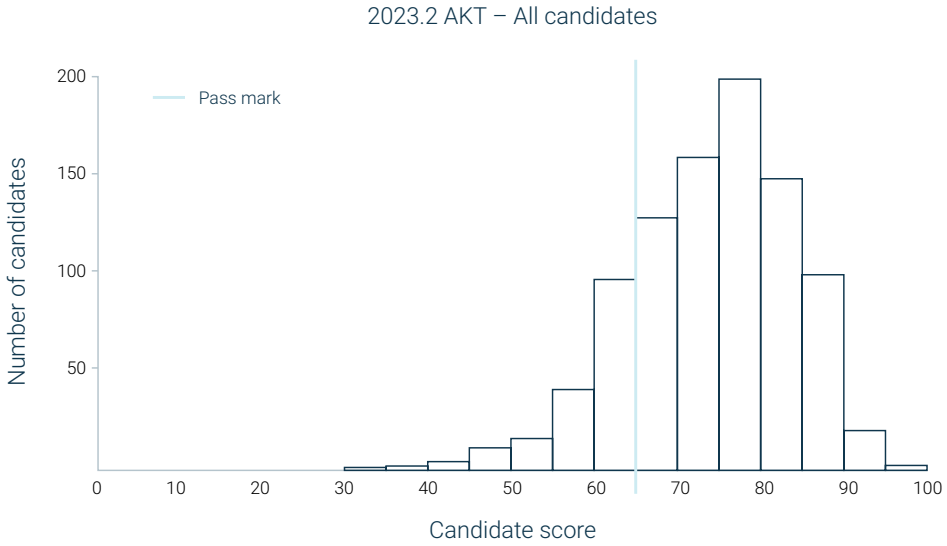

Figure 1. 2023.2 AKT score distribution.

3. Candidate outcomes by exam attempt

Table 2 provides pass rates (%) displayed by number of attempts. A general trend suggests the rate of passing diminishes with each subsequent attempt. Preparation and readiness to sit are important for candidate success.

Table 2. Pass rates by number of attempts

Attempts	Pass rate (%)
First attempt	88.9
Second attempt	70.1
Third attempt	78.6
Fourth and subsequent attempts	39.0

4. Feedback report on 2023.2 AKT

All candidates are under strict confidentiality obligations and must not disclose, distribute or reproduce any part of the exam without the RACGP's prior written consent.

All of the questions in the AKT are written by experienced general practitioners (GPs) who currently work in clinical practice, and are based on clinical presentations typically seen in an Australian general practice setting. The questions should be answered based on the context of Australian general practice.

It is important that candidates carefully read the clinical scenario and question. Although more than one option may be plausible, only the most appropriate option for the clinical scenario provided should be selected.

It is useful for candidates to identify any areas of weakness in their clinical practice through self-reflection and feedback. A supervisor, mentor or peer may assist them in developing an appropriate learning plan to assist with future exams and ongoing professional development.

All questions in the AKT undergo extensive quality assurance processes. Questions are rigorously reviewed during the creation, pre-exam and post-exam review processes, and also during the standard-setting process following the AKT. Reviews are performed by GPs who are currently in clinical practice across Australia.

This report provides a sample of clinical scenarios from the 2023.2 AKT that some candidates found challenging. It describes alternative options selected by candidates and provides feedback regarding the correct answer to the question.

5. Example cases

Example 1

The clinical scenario described a male, aged 18 months, with a perianal rash and pain on defecation. His symptoms were worsening despite use of a topical barrier cream. Physical examination findings included a normal temperature. An image consistent with perianal streptococcal dermatitis was provided.

The question asked, 'What is the MOST appropriate management?'. Of the options provided, the most appropriate response was prescription of oral cefalexin. Alternative options included topical hydrocortisone cream and topical terbinafine cream.

This is an example of a two-step question. It required candidates to diagnose perianal streptococcal dermatitis and prescribe appropriate antibiotic treatment. Perianal streptococcal dermatitis is commonly misdiagnosed and treated with topical corticosteroid or antifungal creams. This results in a delay in appropriate treatment, causing unnecessary patient distress and increasing the risk of complications.

Example 2

The clinical scenario described an Aboriginal male, aged 3 years, presenting with a discharging ear. He and his grandmother would be travelling by car for the next seven days to a remote area. Physical examination findings included pus in the ear canal and a congested tympanic membrane. The initial step of prescribing topical ciprofloxacin ear drops was given in the stem.

The question asked, 'What is the MOST appropriate next step?'. Of the options provided, the most appropriate response was prescription of oral azithromycin. Alternative options included administration of intramuscular benzathine benzylpenicillin and arranging audiometry.

This question required candidates to know the current guidelines for managing acute otitis media with perforation in Indigenous Australian patients. Aboriginal and Torres Strait Islander people have very high rates of severe and persistent otitis media. Typically, Aboriginal and Torres Strait islander populations in rural and remote communities experience otitis media of longer duration and more severe disease than that experienced by non-indigenous children. For this reason, the guidelines are clear that for high-risk patients, early intervention with antibiotic treatment is indicated. Oral amoxicillin is usually the first line treatment for acute otitis media. However, as in this case, when there is no access to refrigeration, azithromycin may be used. Acute otitis media is a common presentation to Australian general practice. It is important that GPs are able to assess patients as low or high risk and manage accordingly.

Example 3

The clinical scenario described a female, aged 55 years, presenting to a remote clinic with fatigue, nausea, abdominal pain and cough that had been ongoing for two weeks. In the past two days she had developed a fever. She had a history of type 2 diabetes and was prescribed metformin and dapagliflozin. Physical examination findings including fever, tachycardia, hypotension and focal crepitations on chest auscultation were given. Her capillary blood glucose level was normal.

The question asked, 'What is the MOST appropriate next step?'. Of the options provided, the most appropriate response was to check blood capillary ketones. Alternative options included prescription of oral amoxicillin or oral oseltamivir.

The patient in this case is presenting with pneumonia. However, her infection is insufficient to explain all of the information given in the stem. This question required candidates to recognise that this patient is prescribed a sodium-glucose co-transporter 2 (SGLT2) inhibitor and is therefore at risk of euglycaemic diabetic ketoacidosis that has been triggered by her underlying infection. Although rare, euglycaemic diabetic ketoacidosis is an important condition not to be missed as it is potentially life-threatening. Due to the normal blood sugar levels seen in this condition, it is a diagnostic challenge. It is important that GPs are aware of potentially serious complications associated with the use of SGLT2 inhibitors.

Example 4

The clinical scenario described a female, aged 35 years, presenting to a rural hospital with an itchy rash, vomiting and severe cramping abdominal pain. Her symptoms had begun 30 minutes prior when she was walking in a nature reserve. Examination findings and an image of an urticarial rash were provided.

The question asked, 'What is the MOST appropriate initial pharmacological management?'. Of the options provided, the most appropriate response was administration of intramuscular adrenaline. Alternative options included oral cetirizine or intramuscular promethazine.

This question required candidates to recognise a case of anaphylaxis likely secondary to an insect bite. This patient's anaphylaxis presented as the acute onset of an illness involving the skin with persistent gastrointestinal symptoms. Adrenaline is the only appropriate first line treatment for anaphylaxis. Antihistamines do not stop the progression of anaphylaxis and are not a substitute for adrenaline. There is a high risk of disability or death if anaphylaxis is not promptly and appropriately treated.

Example 5

The clinical scenario described a female, aged 33 years, presenting at 26 weeks of pregnancy with three months of a red, burning rash around her mouth. She had been using a topical emollient and metronidazole gel without significant improvement. An image consistent with periorificial dermatitis was provided.

The question asked, 'What is the MOST appropriate management?'. Of the options provided, the most appropriate response was prescription of oral erythromycin. Alternative options included prescription of oral doxycycline or topical hydrocortisone cream.

This is an example of a two-step question. It required candidates to diagnose periorificial dermatitis and prescribe appropriate treatment in the context of the patient's pregnancy. While doxycycline is usually a first line treatment for this condition, it is Therapeutic Goods Administration (TGA) pregnancy category D and should be avoided after 18 weeks gestation as it may cause discolouration and malformation of the teeth of the developing fetus. Treatment with a topical steroid cream is likely to result in exacerbation. As periorificial dermatitis is a very common condition seen in Australian general practice, it is important for GPs to be aware not only of first line treatments, but also of alternative treatments recommended in different situations such as pregnancy.

6. Further information

Refer to the RACGP Education Examination guide for exam-related information.

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