RACGP Education

Exam report 2021.1 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.

The 2021.1 AKT exam has a higher-than-usual pass rate and candidate mean score. All other exam parameters, including pass mark, remain consistent with previous exam cycles. This is due to the smaller size of the cohort and the high number of candidates within this cohort who were sitting the exam for the first time. The rate of passing decreases with increased attempts at the exam.

A candidate must achieve a score equal to or higher than the pass mark in order 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 Remote Clinical Exam (RCE) pass mark is determined by the borderline group method (refer to the RACGP Education *Examinations 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 wide variety of variables.

Table 1. Psychometrics

Mean score (%)	73.21
Standard deviation (%)	9.95
Reliability*	0.89
Pass mark (cut score %)	62.00
Pass rate (%)	86.10
Number sat	748

*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 below histogram (Figure 1) shows the range and frequency of final scores for this exam. The vertical blue line represents the pass mark.
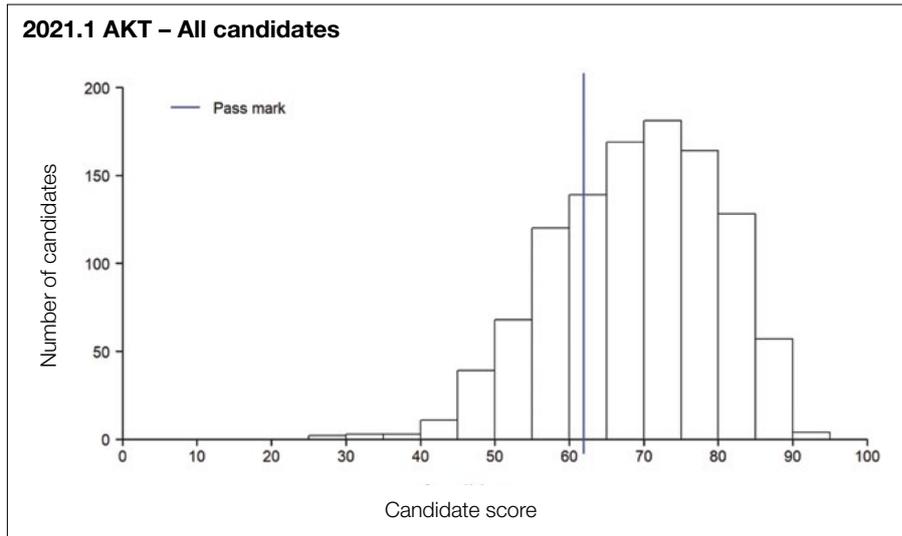
2021.1 AKT – All candidates

Figure 1. 2021.1 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	90.9
Second attempt	41.7
Third attempt	57.9
Fourth and subsequent attempts	34.4

4. Feedback report on 2021.1 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 to 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 2021.1 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 40-year-old man presenting for advice regarding cancer screening. His family history was provided and included one first-degree and one second-degree relative, both diagnosed with colorectal cancer over the age of 55 years.

The question asked, 'What is the MOST appropriate recommendation for cancer screening based upon this patient's history?' Of the options provided, the most appropriate response was to recommend a faecal occult blood test (FOBT) every two years from age 50 years. Alternative options included FOBT every two years from now, and colonoscopy every five years from age 51 years.

This question required candidates to have a knowledge of the current guideline recommendations for colorectal cancer screening, as outlined in the RACGP Red Book. This patient is Category 1, and therefore, has an average or slightly increased risk (<1% 10-year risk of colorectal cancer). An FOBT is recommended every two years from 50–74 years of age. Cancer screening is a common presentation to Australian general practice, and it is important that GPs are able to appropriately advise patients regarding their risk and screening recommendations.

Example 2

The clinical scenario described a young carpet layer presenting with pain and swelling over his left patella. His symptoms were improving with the application of ice and a bandage. The image and physical examination findings provided were consistent with a diagnosis of pre-patellar bursitis.

The question asked, 'What is the MOST appropriate next step in management?' Of the options provided, the most appropriate response was to prescribe an anti-inflammatory medication orally for five days. Alternative options included diagnostic knee joint aspiration and prescription of dicloxacillin orally for five days.

This is an example of a two-step question. It required candidates to make the diagnosis of pre-patellar bursitis and know the appropriate management. One important differential diagnosis in this case was septic arthritis of the knee. This serious diagnosis could be excluded by the given history and examination findings. Aspirating this patient's knee joint was completely inappropriate and risked introducing infection to the healthy joint, thereby causing septic arthritis.

Example 3

The clinical scenario described a middle-aged woman who had been referred by her surgeon for follow up of abnormal investigation results. After a serious illness and surgery, she was found to have an elevated thyroid stimulating hormone level with a normal serum thyroxine (T4) level.

The question asked, 'What is the MOST appropriate next step?' Of the options provided, the most appropriate response was to repeat thyroid function tests in six weeks. Alternative options included prescription of thyroxine 100 mcg orally and iodine supplementation.

This question required candidates to have a knowledge of the appropriate management of abnormal thyroid function tests occurring after a critical illness. This situation is consistent with the transient complex endocrine response which can occur when a patient is severely unwell. It usually resolves spontaneously, and treatment with oral thyroxine is not recommended based on thyroid function tests alone. It is important to assess for persistent thyroid disease by repeating thyroid function tests six weeks after recovery.

Example 4

The clinical scenario described an elderly woman who had sustained a left distal radius fracture one month earlier while travelling. Her fracture was treated with the application of a plaster back-slab. After removal of the back-slab, the patient was found to have symptoms and signs consistent with fracture malunion.

The question asked, 'What is the MOST appropriate next investigation?' Of the options provided, the most appropriate response was X-ray of the left wrist. Alternative options included dual-energy X-ray absorptiometry scan and magnetic resonance imaging (MRI) of the left wrist.

This question required candidates to have a knowledge of possible complications following wrist fracture and the appropriate investigation when a complication is suspected. Fracture malunion occurs when a fracture heals in a non-anatomical position and can result in pain and functional limitation. When malunion is suspected, X-ray is recommended as the initial imaging modality. Further imaging with computed tomography or MRI may be required if operative management of malunion is required.

Example 5

The clinical scenario described an elderly woman with worsening of her usual cough for two months. She had a history of chronic obstructive pulmonary disease secondary to heavy long-term tobacco smoking. She had already taken a course of antibiotics, as well as a short course of oral prednisolone, without improvement. A recent chest X-ray was normal.

The question asked, 'What is the MOST appropriate next step?' Of the options provided, the most appropriate response was to arrange computed tomography scan of her chest. Alternative distractors included prescription of additional antibiotics and referral to a respiratory physician.

This question required candidates to have a knowledge of appropriate investigation of a new or changed chronic cough in a patient at high risk of lung cancer. It is important that GPs are aware that a normal chest X-ray does not exclude lung cancer and further investigation with computed tomography scanning of the chest should be arranged when there is a high index of suspicion. While referral to a respiratory physician would also result in the patient being appropriately diagnosed, it could significantly delay diagnosis and treatment depending on the time frame for the patient to be seen.

6. *Further information*

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

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