



RACGP

Royal Australian College of General Practitioners

RACGP Education

Exam report 2016.2 AKT



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Published by

The Royal Australian College of General Practitioners
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East Melbourne, Victoria 3002 Australia

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www.racgp.org.au

Published August 2016

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We recognise the traditional custodians of the land and sea on which we work and live.

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 and semesters. The reliability is a measurement of the consistency of the exam, with values between 0% and 100%. Although the RACGP target is 80% or above, literature suggests that above 75% is adequate.¹

A candidate must achieve a score higher than the pass mark (or 'cut score') to pass the exam. The pass mark for the Applied Knowledge Test (AKT) and Key Feature Problem (KFP) is determined by the Modified Angoff method and outcomes vary between exams and different time periods. The Objective Structured Clinical Examination (OSCE) pass mark is determined by the well-accepted borderline group method (see the RACGP 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 – that is, there is no set number or percentage of people who pass the exam. Fluctuations in pass rates can be attributed to various factors. The number of candidates who sat the exam is the number of people present on the day. Enrolment figures may be higher due to withdrawals.

Table 1. 2016.2 psychometrics

Year	2016.2
Mean score (%)	69.71
Standard deviation	10.00
Reliability (%)	88.48
Pass mark (cut score %)	66.09
Pass rate (%)	67.84
Number sat	1250

2. Candidate score distribution histogram

The histogram below shows the range and frequency of final scores for this exam. The vertical blue line is the cut score.

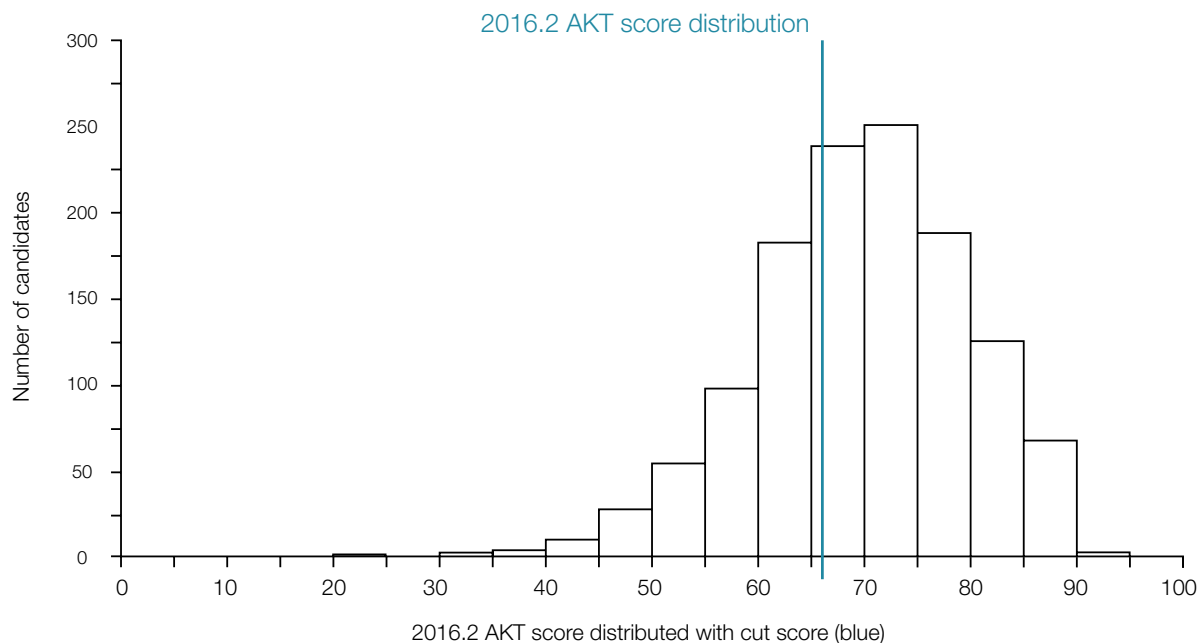


Figure 1. Final 2016.2 AKT score distribution

3. Candidate outcomes by exam attempt

Table 2 provides pass rates (%) displayed by number of attempts. There is a general trend that suggests candidate success diminishes for each subsequent attempt. Preparation and readiness to sit are paramount for candidate success.

Table 2. Pass rates by number of attempts

AKT 2016.2	
Attempts (#)	Pass rate (%)
1	77.67%
2	53.85%
3	52.69%
4+	30.85%

4. Preparation – practice exams

Prior to each AKT and KFP exam, an online practice exam is made available to enrolled candidates. The purpose of this exam is to provide a simulated exam experience in preparation for the real exam. Candidates are provided with automated feedback to complete their experience.

The practice exam is not designed to provide a mark/grade as an indication of whether or not a candidate will pass.

However, it is evident to the RACGP that those who attempt the online practice exams performed better in the subsequent real exam. Attempting the practice exam is highly recommended.

2016.2 AKT online practice exam				
Attempted the practice exam?	Proportion of candidates	Passed the real exam (#)	Total (#)	Pass rate
No	10.40%	55	130	42.31%
Yes	89.60%	793	1120	70.80%
Grand total	100%	848	1250	

5. Feedback report on 2016.2 Applied Knowledge Test

This feedback document will be published following each AKT exam in conjunction with candidate results. All of the questions in the AKT are written by experienced GPs who currently work in clinical practice and are based on clinical presentations typically seen in the general practice setting in Australia. The questions should therefore be answered in the context of Australian general practice.

This feedback document should illustrate the importance of reading the clinical scenario and the question carefully. Although more than one option may be plausible, only the most likely or most appropriate option for the clinical scenario provided should be selected.

It is important not to base a substantial part of exam preparation on complete or partially reconstructed AKT papers, as these papers may not accurately reflect the content of the AKT exam. This is especially the case if the candidate's recall of the question is incorrect or incomplete. It is also not advisable to memorise questions and answers from these reconstructed AKT papers, as minor modifications to the clinical scenario or the question being asked may alter the correct response.

It is useful to identify areas of weakness in your clinical practice through a process of self-reflection and feedback from your supervisor, and use this information to develop an appropriate learning plan to assist with future preparation for the AKT exam.

All questions in the AKT exam undergo extensive quality assurance with questions being reviewed by GPs currently in clinical practice, both when the AKT exam is being drafted and after the AKT exam, during the standard setting.

This report will touch on a sample of clinical scenarios that some candidates found challenging, look at the alternative options selected by candidates and explain the reasoning behind the correct answer.

Example 1

The clinical scenario describes a woman aged 36 years with a persistent rash on the dorsum of her right hand that is spreading. The image shows discrete papules with a rough, irregular surface.

The question asks for the **MOST** likely diagnosis. The correct response is common warts. The age of the patient and appearance and distribution of the lesions make common warts the most likely diagnosis.

Some candidates selected molluscum contagiosum and psoriasis.

The appearance and distribution of the lesions is not typical of psoriasis. Psoriasis produces plaques of thickened, scaling skin and commonly affects the skin of the elbows, knees, and scalp.

Molluscum contagiosum papules tend to be uniform in appearance, usually very round with an umbilicated or dimpled centre. In contrast, the lesions shown in the image have a rough irregular surface without central umbilication.

Molluscum contagiosum is more common in children, but when it does occur in adults it has a predilection for the groin and genital areas. The age of the patient and the distribution of the lesions should also point to common warts as the most likely diagnosis.

Example 2

The clinical scenario describes a man aged 38 years who was diagnosed with right Achilles tendinopathy two weeks ago after running his first half-marathon. Despite following your advice to rest from running, he continues to complain of pain in his right heel. Examination findings and ultrasound have confirmed your clinical diagnosis.

The question asks for the **MOST** appropriate next step in management and the correct response is referral to a physiotherapist. Most acute tendon injuries in young healthy individuals are due to overuse or malalignment and will settle with 1–2 weeks of rest. The most appropriate second line treatment when symptoms have not responded to rest is referral to a physiotherapist or exercise physiologist for stretching and strengthening exercises.

Some candidates selected non-steroidal anti-inflammatory medication and cortisone injection. As there is very little inflammatory component in Achilles tendinopathy, neither non-steroidal anti-inflammatory medication or cortisone injection into the tendon is likely to be of benefit. In fact, cortisone injection has been shown to increase the likelihood of scarring and weakening of the tendon.

Example 3

This question refers to a woman aged 51 years with a two-month history of a smooth, non-tender midline swelling in the neck which moves with swallowing. She is otherwise well and a recent full blood examination and thyroid-stimulating hormone (TSH) test is normal.

The question asks for the **MOST** appropriate next step. The correct response is thyroid ultrasound.

Some candidates selected fine needle aspiration cytology or no further investigation. The lump described in the clinical scenario is likely to be a thyroid lump as it is midline and moves with swallowing. Although the lump has benign features and TSH is normal, further evaluation with a thyroid ultrasound is required and is the most appropriate next step. Thyroid ultrasound will confirm if the lump is arising from the thyroid or an adjacent structure, will assess the size and echogenicity of the lump and identify features that may warrant a biopsy. Although fine needle aspiration cytology may be necessary if there are ultrasound features suggestive of malignancy, it is not the most appropriate next step.

Example 4

The clinical scenario describes an asymptomatic male aged 23 years seeking sexual health advice. He has been having protected casual oral and anal sex with a male partner for the past 12 months. He does not use recreational drugs during sex. HIV testing two years ago was negative.

The question asks how often he should be offered sexually transmitted infection screening and the correct response is every 12 months.

Some candidates selected every three months, every six months or opportunistically.

This question requires the candidate to recognise the increased risk of sexually transmitted disease in men who have sex with men (MSM). Opportunistic screening is not appropriate in this clinical scenario and may have significant biopsychosocial implications for both the patient and the community. Screening more often would be indicated if MSM are involved in more risky activities including the use of recreational drugs during sex or unprotected anal sex. As the clinical scenario in this question clearly states that he does not use recreational drugs during sex and that he always uses protection, a screening interval shorter than 12 months is not warranted.

Example 5

The clinical scenario describes an asymptomatic man aged 45 years who presents to your regional medical practice for a blood pressure check. He had a 25 packet year history of cigarette smoking but quit smoking last week. He is otherwise well and active, going to the gym and playing golf regularly. Spirometry result is consistent with mild COPD.

The question asks for the **MOST** appropriate initial management and the correct answer is no change to current management.

Candidates selected a range of options including initiation of salbutamol MDI, initiation of long-acting beta agonist/long-acting muscarinic therapy, initiation of short-acting muscarinic therapy and pulmonary rehabilitation.

It is important to recognise that COPD severity guides both pharmacological and non-pharmacological therapy. The aim of treatment is to reduce and control symptoms, decrease exacerbations and improve exercise tolerance and patient quality of life. The patient described in the clinical scenario has mild airflow limitation but is asymptomatic with good exercise tolerance and quality of life, and has recently stopped smoking. Appropriate initial management in this patient is smoking cessation and exercise, which the patient has already undertaken.

6. *Further information*

Please refer to the RACGP [Examination guide](#) for further exam-related information.

Reference

1. Tavakol M, Dennick R. Making sense of Cronbach's alpha. *Int J Med Educ* 2011;2:53–55.



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