

RACGP

RACGP Education

Exam report 2016.1 KFP



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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.

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, an internationally recognized standard setting process used in high stake assessments. The pass mark will vary between exams and different time periods in line with a criterion based standard setting method. The Objective Structured Clinical Examination (OSCE) pass mark is determined by the 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. 2016.1 psychometrics

Year	2016.1
Mean score (%)	60.01
Standard deviation (%)	6.57
Reliability (%)	78.57
Pass mark (cut score %)	60.16
Pass rate (%)	51.94
Number sat	1186

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.

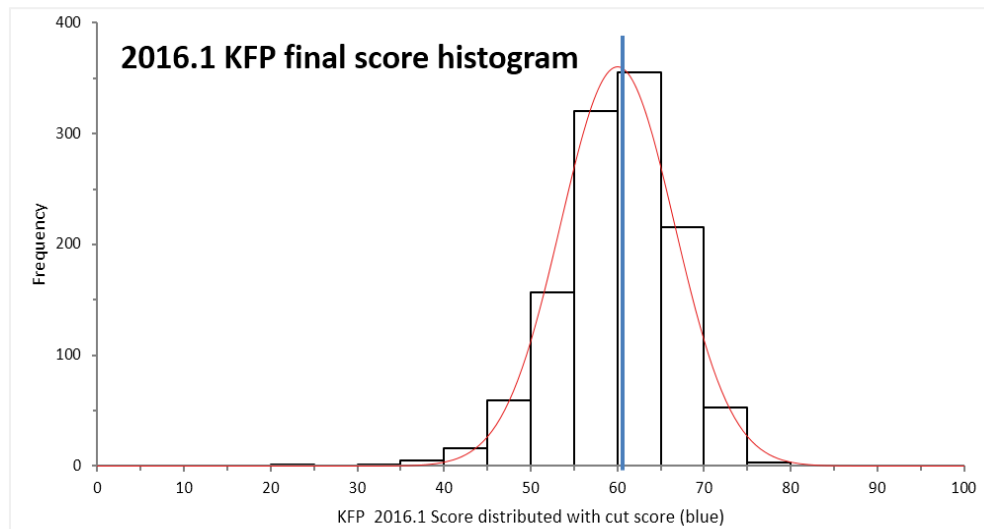


Figure 1. Final 2016.1 KFP score distribution

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	
KFP 2016.1	
Attempt	Pass rate (%)
1 st attempt	64.6%
2 nd attempt	37.8%
3 rd attempt	28.9%
4 th or greater attempt	16.24%

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 composed of questions selected from previous papers that reflect the range of questions candidates may encounter. The practice exam is delivered in exactly the same online platform as the real exam.

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. There are a number of factors that contribute to these statistics, indicating that success is not tied to attempts alone. However, attempting the practice exam is highly recommended.

Table 3. 2016.1 KFP online practice exam

Attempted the practice exam	Total (#)	Proportion of candidates (%)	Passed the real exam (#)	Pass rate (%)
No	147	12.4	31	21.1
Yes	1039	87.6	584	56.3
Grand total	1186	100%	711	

5. Candidate Performance - AKT & KFP

The following table shows the performance of candidates sitting both the 2016.1 AKT and the 2016.1 KFP exams. 880 candidates sat both the AKT and KFP exams this cycle.

Table 4. 2016.1 AKT and KFP pass/fail correlation

AKT	KFP	#	%
Pass	Pass	449	51.0%
Pass	Fail	154	17.5%
Fail	Pass	43	4.9%
Fail	Fail	234	26.6%
Total		880	100.0%

6. Feedback report on 2016.1 Key Feature Problem Exam

This feedback document will be published following each KFP exam in conjunction with candidate results. All of the questions in the KFP 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.

The KFP exam is designed to assess the clinical reasoning of the candidate; a core competency for all clinicians. It is important to remember that the KFP paper is not simply a short answer paper but requires the analysis of the clinical scenario, taking into account the initial information and any evolving information as the cases progress. The candidate is then required to answer focussed questions relating to the context of the given clinical scenario.

The paper reflects the breadth of clinical encounters seen in Australian General Practice and as such the answers should relate to Australian General Practice.

This feedback is being provided so that all candidates can reflect upon their own performance against each case and what was required. It is also being provided so that prospective candidates, as well as those assisting them in their preparation, can see the breadth of content in the exam as well as advice on how to approach the exam. This should be read in conjunction with the advice given in the *RACGP Examinations Guide*

Case 1

This case focuses on a patient presenting with a prolonged cough and an episode of haemoptysis who had recently emigrated from Papua New Guinea. The case explores the potential differential diagnoses and subsequent initial investigations.

Candidates gave a range of differential diagnoses but what was important was to focus on the key information in the scenario and provide the most likely answers. Whilst there may be many causes of a prolonged cough and haemoptysis the list of most likely differential diagnoses becomes much narrower in the context of a 21 year old male patient recently arrived from overseas. This is the '*Key Feature Problem paper*' and not a straightforward short answer paper. The answers to this and all the questions need to be focussed in the context of both the clinical scenario and the question, which in this case was the '*most likely differential diagnoses*' and not a list of all causes of haemoptysis.

Likewise the initial investigations need to assist in clarifying the diagnosis and form part of a rational management approach rather than second line investigations or those investigations that will not assist in assessing the differential diagnoses

Case 2

This case revolves around a 62yr old woman with acute onset of back pain after moving some books from a car. The case focuses on the ability to assess and manage a simple musculoskeletal injury whilst taking into consideration comorbidities of asthma and hypertension.

There were a broad range of answers provided by candidates, highlighting again the need for candidates to look at the *most likely* differential diagnoses. Not just listing all causes of back pain or providing answers relevant to the broad clinical context. Listing causes of back pain in a male patient such as metastatic prostate cancer would obviously not have scored. It is important exam

technique to ensure you read the scenario, and identify the key information about the patient, such as age and gender.

In managing the condition the question asked about the next steps after investigations. In the KFP paper candidates are requested to provide a specific number of answers, in this case there was a request for four answers. If candidates provide extra responses above this then there is a penalty for each answer above the four answers. Answers are meant to be short, and one answer per line. No request was made to explain, expand or justify the management steps given. In doing any of these, candidates risk being penalised for extra responses. It is good exam technique to review the answers and if you have used phrases/words such as, '*for example*', '*because*' or '*and*' or even need to use commas then the answer is most likely to contain extra responses and therefore attract penalties. (For further discussion on extra responses please refer to the *RACGP Examinations Guide*¹)

Case 3

This case presents an elderly female patient recently arrived in a retirement village and a new patient to the practice. The patient has suspected cardiac failure and the questions look at the assessment and management of the patient, both pharmacological and non –pharmacological.

In the KFP paper it is important to remember that giving answers that are in the case or question will not gain marks. For example, when being asked for history to establish the diagnosis, responding with their age or foot swelling (since these were in the case scenario) will not gain marks.

Candidates were asked to offer changes to her medication to better manage her heart failure. Many candidates offered changes to her management unrelated to her heart failure or offered management strategies not evidence-based given her age and condition. It is important to focus on the question and ensure answers match the information being asked for and are specific.

Case 4

In this case we find a 32 year old male with unilateral severe facial pain. Candidates are asked for a single diagnosis, given the classic presentation, and the subsequent assessment and management of this presentation.

Whilst a significant proportion of the candidates gave the diagnosis they could not identify further aspects of the assessment, either history or examination to clarify their diagnosis. Many candidates offered answers to assess any form of pain and so were not specific and did not gain marks.

In the management section candidates were asked to provide answers other than investigations. Despite this, there were many candidates who offered investigations, which whilst appropriate did not answer the question. This is a common error in the KFP: Providing answers not relevant to a focussed question such as, '*other than investigations how would you manage this patient's facial pain?*' Many answers were nonspecific such as '*analgesia*' or '*educate*'. Broad general answers will not gain marks, it is important to be specific: which analgesia/medication, educate about what? A good answer also focussed on all aspects of management and not simply listing all possible medications.

Case 5

This was a dermatology case with a patient presenting with two lesions, both requiring diagnosis and specific management.

Historically, dermatology questions are not answered well. In this case many candidates incorrectly focussed on the patient's history that involved a previous successful melanoma

¹ Available at <http://www.racgp.org.au/education/fellowship/exams/preparation/>

removal several years before and responded to both lesions as variants of melanoma and their management centred on referrals and so did not score marks

The questions asked for specific diagnoses and management of two classic lesions that are spot diagnoses. Good responses obviously centred on safe management, one requiring excision and biopsy/histopathology, and marks were gained for appropriate margins to the excision. The second lesion was benign and needed appropriate, specific advice on its benign nature and appropriate follow up/monitoring

There are many excellent online resources to assist candidates in reviewing the common dermatological presentations in Australian general practice and therefore what may be part of the KFP cases.

Case 6

This case presented a 29 year old female with a classic hamstring injury and the predisposing factors increasing the risk of this injury. The final part to the case presented an incidental finding on the patients shins and required candidates to consider the possible causes of the lesions in this patient.

Good answers were concise and specific, despite asking for a single '*most likely*' diagnosis, some candidates provided two diagnoses, often with conflicting answers and many used '*or*' between their answers. As discussed previously this will attract penalties and highlights the need to review answers to ensure the correct number of responses is given.

The final part of this case required candidates to correctly identify a classic presentation/appearance of erythema nodosum and then offer the most likely causes of this in the given clinical scenario; again not just a list of all causes but targeted to the patient in this case. The question did not ask for the diagnosis but required candidates to assess the photograph and history and then concisely list the most likely causes.

Case 7

This case centred on the differential diagnosis, assessment and management of a 34 year old with a 4 week history of a swollen scrotum. The case also described an episode of successfully treated syphilis over a decade before.

Whilst candidates were able to identify the most likely diagnoses, in describing appropriate examination findings many candidates gave a continuous list of examination stages. These stages were across the lines with multiple non-focussed answers with some giving 50% more answers than required and included history questions. A good response was focussed and concise and examination centred.

Case 8

In this case we see a 21 year old patient being diagnosed with gestational diabetes in the early stages of her pregnancy. The cases required subsequent management of the diabetes in the context of being pregnant as well as vitamin D deficiency identified at the same time.

In this question good answers were those that focussed on specific management for diabetes within pregnancy and not diabetes in general or general advice in pregnancy (such as smoking alcohol or dietary changes unrelated to diabetes). Regarding the Vitamin D deficiency, offering treatment in line with the appropriate published Australian guidelines gained more marks. Again being concise as well as focussed on what is required in the case of such deficiency during pregnancy.

Case 9

This case required the investigation, treatment and subsequent holistic management of a sexually transmitted infection in a 16 year old indigenous girl.

Good answers in this question identified the need for specific investigation and not simply listing all possible investigation or using broad terms such as '*PCR*', '*swabs*', '*smear*' etc. The treatment required the correct antibiotics as well as the dose/duration. When considering the management of this presentation the assessment of the risks to the patient and assessment of her safety given her sexual activity and infection as well as the appropriate follow up and advice.

Candidates were required to identify issues specific to her cultural background as well as advice relevant to all patients with this clinical presentation. Many candidates did not correctly identify these issues and so missed marks.

Case 10

This case focussed on the presentation of a 16 year old boy who is brought by his mother because she is concerned about his mental health. The scenario requires the appropriate assessment of suicide risk and the subsequent development of a suicide safety plan management of the situation presented.

This case was answered well with candidates identifying the risk factors in the given scenario and the appropriate management including the safety plan. The main issues in this case were the number of extra responses, with candidates giving lists of answers; trying to justify their answers with examples, giving broad non-specific answers or providing answers that were already in the case/scenario. The risk in providing examples is that you may get an example wrong and you may introduce more answers. This is a key feature paper and as such it is important to give the key answers which are focussed and critical to this case.

Case 11

In this case an 8 year old girl presents with a red watery eye and centres on the most likely differential diagnoses, subsequent key examination features and the assessment of a further unrelated eye problem in the same child at a further consult.

Good answers were relevant to the age of the child and not simply (as discussed previously) a knowledge dump of all causes of a unilateral red eye in a young child. Likewise the examination component was focussed on the examination of the eye, so listing vital signs, examination of joints or skin did not score. Many candidates provided up to 50% more responses than asked for because they either listed lots of examination issues or justified their answers with examples and further examination or explanation of their answers. It is important to remember that the examiners marking the questions are all practicing GPs and so no explanation of answers or expanding of answers is required but medical language appropriate to communication with a clinical colleague is appropriate

The final part require the correct identification of a classic presentation of an eye-lid namely a chalazion/meibomian cyst

Case 12

This case requires the management and identification of appropriate medications for poor pain control in an 81 year old female new resident of a nursing home along with the management of her polypharmacy. The case then progresses to the need to identify the appropriate drugs and symptom control for her palliative care.

Good answers in this case demonstrated applied knowledge to the case and co-morbidities and not a list of all possible analgesia options independent of the patient's presentation and the appropriate steps in reducing her polypharmacy in line with evidence-base and appropriate guidelines. Those not scoring well were generally in the final section by not reading the question and focussing on the palliative stage of treatment and the cessation of oral medication and the change to a syringe driver.

In all RACGP assessments it is important to ensure you have read the question thoroughly, at

least twice, to understand what is being asked. Furthermore it is important to identify the context in which the question is being asked before providing answers. Try to imagine the patient in front of you in general practice, rather than thinking about a textbook answer for a condition

Case 13

This case requires the assessment, investigation and management of a 2 year old boy presenting with a persistent cough that has progressed from a dry to a moist cough despite antibiotic treatment. The history describes features suggestive of an inhaled foreign body.

Good answers involved the identification of a possible inhaled foreign body and the subsequent appropriate investigation and management. This is a commonly missed diagnosis. In this case the most common error was not giving an appropriate timeline on the referral. It is important to demonstrate insight into the urgency of referrals where appropriate and furthermore identifying who the patient is being referred to. A simple answer of 'refer' would not score marks. This is a key feature exam and as such requires demonstration of insight into the critical nature of the presentation.

Case 14

In this case a 23 year old mother is presenting with her two week old baby concerned that she has poor milk supply and the baby is not growing. The case provides information to assess whether her concerns are correct and to offer the appropriate advice and management at this point and in a follow up appointment when the mother presents with symptoms and findings suggestive of early mastitis.

The case was answered well with candidates giving appropriate advice in the initial presentation but in the management section many candidates gave extra responses by justifying their answers or providing the rationale. Candidates also erroneously provided lists of treatments, sometimes also providing alternatives on the same line. It is important to remember that in the exam there is one line provided for each answer requested so there should only be one answer per line. In this part good answers included both continuing breastfeeding and the correct antibiotic along with evidence-based symptomatic management.

It is important for candidates to assess their current day to day practice and identify presentations or clinical areas they do not commonly see and ensure they review these areas as they prepare for the exam

Case 15

This case centred on the presentation of a 14 year old girl with her mother who is concerned that her daughter's menstrual pattern has changed. A differential diagnosis along with subsequent investigations is required and then the ongoing management of the patient in the light of normal results.

Good answers in this case required giving the right number of most important diagnoses to consider and not providing lists with examples or clarification. Candidates identified the most important investigations to assess the differential diagnoses. The management of the presentation, in light of normal results, and the information in the scenario pointed to the most likely diagnosis of an eating disorder. Those candidates not scoring well focussed on non-specific answers such as referral, contraceptive advice, and using screening tools for unrelated issues or giving answers that covered the same conceptual areas

Case 16

This case presents a new patient presenting with a migraine and letter from a previous GP stating that she requires pethidine for these migraines. The case focuses on the initial assessment of the patient and subsequent appropriate management.

A good answer in this case required candidates to demonstrate a safe and systematic as well as

a professional approach to patients presenting with drug seeking behaviours. This included the appropriate contact with her previous GP and agencies monitoring 'doctor shopping' as well as assessment of the presenting symptoms.

Candidates again provided lists of management options with justifications and were not concise at all and so were penalised with extra codes. If the candidates gave pethidine then they scored zero for that part of the case, not the whole case but for that part of the case as this is definitely not appropriate management.

Case 17

In this case a 78 year old female patient recently admitted to an aged care facility presents with an acute change in her behaviour and symptoms suggestive of delirium. The case requires the differential diagnosis of this presentation and appropriate investigations. The case also focuses on subsequent management of falls once the acute symptoms have settled.

In this case many candidates provided multiple answers including answers detailed in the case and question, there were many examples of providing lists with different answers and examples. Candidates are reminded to be concise, give one answer per line and not expand answers. Good answers looked at the range of possible causes for acute confusion/behaviour change rather than creating a list of one area such as different infections or types of intracranial pathology.

A good answer regarding management of this patient's falls risk demonstrated a holistic approach and understanding of the potential causes of falls in the elderly as well as providing concise responses. Some candidates looked at fracture minimization or treating osteoporosis and not at the reduction in falls, again it is important to read what the question is requiring.

Case 18

The case centred on the differential diagnosis, investigation and management of a 20 year old patient returning from a visit to family in Eastern Europe. While away he was unwell, was treated for tonsillitis and now presents with an isolated submandibular lymph node.

Good answers focussed on a concise list of most likely diagnoses in this returning traveller. Poor answers included providing lists of all possible causes for isolated lymphadenopathy irrespective of the given scenario. Candidates correctly identified the appropriate investigations and the most important management step of excision/biopsy of the affected node.

Case 19

This case described the respiratory history of a 62 year old indigenous female patient along with the report from the CT scan of her chest. The history and examination findings along with the CT descriptors were classic for bronchiectasis. The diagnosis along with the possible predisposing conditions other than those in the detailed introduction for her was required together with management steps focussed on maintaining optimal lung function.

A good answer identified the diagnosis and relevant predisposing conditions, specific to her presentation though a common error was to list things already provided as possible causes or give broad topics such as '*immunisation issues*', or '*previous chest problems*'. Some candidates focussed on COPD as an answer and subsequent causes. Likewise targeted answers scored well in the maintenance of her lung function and included mucous clearance, appropriate immunisation, medication and pulmonary rehabilitation.

Case 20

This case requires the identification and the appropriate immediate management of a 24 year old male patient presenting at the end of the day with facial trauma occurring earlier that day.

A good answer required candidates to demonstrate the important aspects of examination to exclude serious pathology in this presentation and identify the most likely diagnosis. The main

error was in not giving a specific diagnosis but broad answers such as facial bone fracture and on assessment giving lists of examination findings under different headings or categories, rather than one specific feature of examination on each line. Imagine the patient in general practice and what findings you would look for.

Case 21

In this case the wife of a 36 year old man contacts you to inform that he has been bitten by a snake at a remote location and deals with the immediate first aid advice and subsequent management of the bite.

The essential management was pressure banding immobilisation and immediate transfer to hospital. If candidates washed the wound then the candidate scored zero for the first part of the case as this can literally be a life or death action and is absolutely contradicted in all management guidelines for snake bite.

A good answer to the onsite management once at a medical facility included the swab of the bite, IV access, monitoring for signs of envenomation, assessing for coagulopathy/baseline coagulation tests.

Case 22

In this case a 19 year old female presents with symptoms suggestive of a pneumonia, or acute severe viral infection and the requirement to develop a list of most likely differential diagnoses and elements of history relevant to the presentation. A chest x-ray film was provided and a decision on the next most important management step required given the findings on the x-ray.

A good answer identified the most likely diagnoses and key history features relevant to this presentation. Given the high fever and chest x-ray finding candidates were required to identify that this was an infective process. Some candidates focussed on a possible PE and so on the elements of history focussed on immobilisation, contraceptive pill use, or calf pain.

The x-ray showed significant consolidation and this in conjunction with the patient's clinical findings and vital signs required immediate transfer to hospital for assessment and treatment. Some candidates provided diagnoses and their management options rather than the single most important management action. It is important to read the question and remember that if there if the question has a single most important step there will be one answer line and therefore to only provide one answer.

Case 23

A 12 year old girl presents with an itchy rash classic for a dermatomycosis and centres on the appropriate history and management of further lesions. The case then sees the girl being brought by her mother because of tender breast swelling and further information that there is a family history of breast cancer. The initial management of this new presentation is required.

Good answers identified the key features in the history confirming the diagnosis of a fungal infection as well as prior dermatological conditions and again required a concise and specific format, answers such as prior contact, bites or itch did not score as they were either too broad or given in the case.

This is a classic GP presentation and identifying the correct management is important and the development of further lesions is common and requires ongoing topical treatment and not referral or oral treatments.

The distractor of the family history of breast cancer does not require the patient to be investigated as the development of tender post areolar breast swellings is a normal pubertal occurrence and specific education/advice/reassurance to the fact that this is normal is all that is required. It is

important that candidates identify normal changes in the body and do not over investigate.

Case 24

This case sees the progression of symptoms in a 51 year old female patient with a history suggestive initially of simple gastro-esophageal reflux. The case progresses from the initial diagnosis to subsequent identification of further diagnoses when the symptoms persist despite treatment and the subsequent single most important management step.

Good answers correctly identified the condition and subsequent differential diagnoses and looked at the breadth of possible conditions in this patient with the history given. Common errors were around focussing on acute cardiac events when the history clearly states progressive chronic symptoms. It is important to consider all the information in the case and question. All the information given is important and relevant to the questions then asked.

Case 25

In this case whilst undertaking a driving license medical in a 75 year old gentleman an irregular pulse is noted and an ECG is provided. The diagnosis and investigation are required along with the subsequent management

A good answer required the identification of atrial fibrillation and not a description of the ECG – *absence of p waves, irregularly irregular etc.* Likewise giving diagnoses that could not be inferred for the history or the examination and ECG did not gain marks; candidates offered causes of atrial fibrillation rather than answering the specific question about the diagnoses shown on the ECG.

Investigations needed to focus on determining the cause of the atrial fibrillation. The question asked for immediate investigations and therefore stress echocardiography or stress testing were not appropriate. Likewise simple baseline bloods rather than focussed bloods did not attract marks.

In respect to the question focussing on the principles of managing the atrial fibrillation a good answer required controlling the rate, the rhythm and the risk of embolic events.

Case 26

In the final case we see a 35 year old indigenous patient that has advanced glioblastoma that her husband and family have brought home as they are concerned about her care in hospital. The case requires the assessment of what is required to manage this patient in the home environment and the specifically managing evolving symptoms as the patient deteriorates.

Good answers acknowledged the cultural setting and were sensitive to this and ensured appropriate engagement of agencies as well as considering the practicalities of ensuring holistic care in the home to address all aspects of patient care including physical, social, spiritual, legal aspects as well as appropriate symptom control. Also the demonstration of appropriate end of life planning was important. Poor answers focussed on one single aspect or symptom management, as well as not acknowledging the cultural needs of the patient and family.

7. Further information



Royal Australian College of General Practitioners