

MCQ Assessment

ASSESSMENT PUBLIC REPORT

2024B

Purpose

This public report provides information for candidates, supervisors, educators and training organisations and is produced following each Multiple-Choice Question (MCQ) exam. It includes information on the conduct, outcome, statistics and commentary for the most recent delivery of the exam. Past public reports are available on the [ACRRM website](#).

Introduction

The MCQ is a written assessment consisting of 125 questions which assesses recall, reasoning and applied clinical knowledge. In particular it focuses on assessing the ability to manage medical care in a rural or remote environment. The assessment aims to cover all domains of rural and remote practice and is one of the summative assessments for CGT.

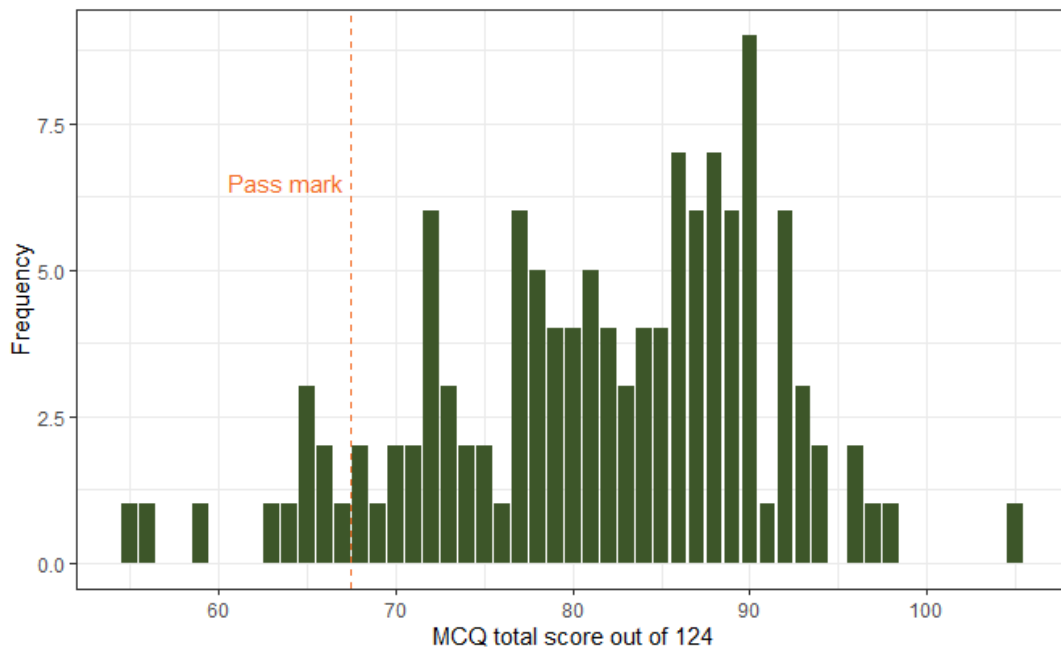
Overall Outcome

A total of 123 candidates sat the 2024B MCQ exam. 112 of the 123 candidates passed. The overall pass rate was 91.1%.

Assessment Statistics

All 125 questions were evaluated using psychometrics, resulting in 1 question being identified as poor performing and hence removed. The Angoff cut score was recalculated and grades were calculated accordingly. Below is a summary of the assessment statistics:

number of candidates	123	mean	81.59/124 (65.8%)	standard error of measurement	4.57/124 (3.7%)
number of questions	124	median	83/124 (66.9%)	test reliability (Cronbach's Alpha)	0.765
time allowed	3 hours	pass mark	68/124 (54.8%)	pass rate	112/123 (91.1%)
minimum score	55/124 (44.4%)	maximum score	105/124 (84.7%)	range of scores	50/124 (40.3%)



Cronbach Alpha (desirable if in the range 0.7-0.9) is the measurement of reliability and internal consistency, the effect of measurement error on the observed score of a student cohort rather than on an individual student.

2024B Cronbach Alpha = 0.765 (consistent with previous exams)

Standard error of measurement (SEM; smaller = better) is a measure of the “spread” of scores within a student had that had been tested repeatedly; the effect of measurement error on the observed score of an individual student.

2024B SEM = 4.57/124 = 3.7% (consistent with previous exams)

Conduct of the Exam

The 2024B exam was held on 3 July 2024 and was delivered online through a secure platform. with a total of 123 registered candidates. All 123 candidates completed this attempt.

Candidates were based around Australia, in a nominated location. Venues and invigilators are required to be officially approved by ACRRM and met the standards required for MCQ exams.

The MCQ exam is conducted over three hours and scheduled to commence at 1.00pm AEST (QLD time). A minor timing issue was identified by the College on the day of the 2024B exam and addressed. Steps have been taken to ensure it does not happen in future assessments. The incident was taken into consideration in the review of results and determination of exam outcomes.

Questions mostly consist of a clinical case presentation, a brief targeted lead-in question and four options from which candidates are required to choose the single best option. The stem of the clinical case may include text and images. Sample questions may be found on the ACRRM website. There are no negative marks for incorrect answers.

Further information may be found in the [Handbook for Fellowship Assessment](#).

Overview Grading and Scoring

The pass mark is set using the Modified Angoff method; therefore, the pass mark may vary between each exam depending on the difficulty of the questions. Standard post-examination analysis is performed to identify and manage statistically poorly performing questions.

Curriculum Blueprint

ACRRM Domains:

1. Provide expert medical care in all rural contexts
2. Provide primary care
3. Provide secondary medical care
4. Respond to medical emergencies
5. Apply a population health approach
6. Work with Aboriginal, Torres Strait Islander, and other culturally diverse communities to improve health and wellbeing
7. Practise medicine within an ethical, intellectual, and professional framework
8. Provide safe medical care while working in geographic and professional isolation

The table below provides a brief overview of the 2024B questions and percentage of candidates who passed the question. Note the exam composition, the domains of the curriculum assessed and percentage of candidates who passed the question may vary between exams.

Curriculum Learning Areas	Topics covered by questions on the 2024B Exam	% Correct
Aboriginal and Torres Strait Islander Health (ATS)	Appropriate investigation of potential immunosuppression Aboriginal and Torres Strait Islander patient	11%
	Management of trachoma	74%
	Medicare plan	63%
	Treatment of impetigo in Aboriginal remote communities	82%
Academic Practice (ACAD)	Driving after a seizure	36%
Addictive Behaviours (ADD)	Management of gambling addictions	80%
	Symptom of withdrawal medicine	51%
Adult Internal Medicine (AIM)	Antibiotic use in dental procedures	63%
	Anticoagulant management	70%
	Breast screening in relevant populations	46%
	Diagnosis and investigation MS	76%
	Diagnosis and investigation coeliac disease	86%
	Diagnosis of autoimmune disease	94%
	Diagnosis of chronic diarrhoea	62%
	Diagnosis of motor neurons disease	68%
	Diagnosis of serotonin syndrome	98%
	History taking in an allergic reaction	71%
	History taking in suspected eating disorder	54%
	Investigation of chest pain	78%

	Investigation of secondary hypertension	86%
	Investigations in hyperthyroidism	30%
	Laboratory findings on Paget's disease	93%
	Management of acute renal failure and hypertension	75%
	Management of colicky pain	90%
	Management of complex regional pain syndrome	27%
	Management of erectile dysfunction	36%
	Patient centred investigation in peripheral neuropathy	93%
	Patient centred investigations in hyperferritinaemia	89%
	Treatment of COPD	77%
	Treatment of rheumatic fever	88%
	Treatment of severe COPD	56%
	Treatment of trigeminal neuralgia	95%
Aged Care (AGE)	Assessment of tremor	85%
	Management of hyperkalaemia	77%
	SIADH diagnosis	93%
	Treatment cascade in congestive cardiac failure	93%
	Treatment of dementia	90%
Anaesthetics (ANA)	Choice of anaesthetic agent in the Emergency setting	86%
	Diagnosis of local anaesthetic toxicity	88%
	Fasting LSCS	39%
	Insertion of airway in an emergency setting	85%
	Perioperative Fasting	50%
	Perioperative medication management	76%
	Sedation	71%
Chronic Disease (CHRON)	Appropriate investigation of a leg ulcer	50%
	Assessment of osteoporosis	50%
	Investigation abnormal LFT	15%
	Management of chronic renal failure	72%
	Treatment of drug resistant hypertension	85%
Dermatology (DERM)	Comorbidities in psoriasis	63%
	Diagnosis of axillary skin rash	24%
	Management of BCC	85%

	Management of blister	72%
	Treatment of Keloid scar	67%
	Treatment of acute facial rash	57%
	Treatment of tinea after inappropriate use of steroid	77%
Emergency (EM)	Clinical examination findings is a patient who has collapsed	84%
	Complete heart block management	11%
	Diagnosis of cardiac arrhythmias	58%
	Diagnosis of dizziness	39%
	Diagnosis of vomiting in the neonate	93%
	Diagnosis of zoonotic tropical diseases	37%
	Emergency management of a snake bite	90%
	Emergency management of chest pain	77%
	Emergency management of hyperglycaemia	59%
	Emergency resuscitation of a child	30%
	Emergency treatment of haematemesis in the Emergency Department	43%
	Emergency treatment of tension pneumothorax	82%
	Fluid resuscitation in sepsis	55%
	Investigation in a patient with potential ischaemic bowel	77%
	Management of cat bit	59%
	Management of contacts of patient with meningitis	28%
	Management of fall in elderly	57%
	Management of overdose in Emergency Department	74%
	Management of paediatric seizure in emergency setting	76%
	Management of short breath	87%
	Paediatric Acute Behavioural Disturbance	70%
	Paediatric Foreign Body Airway Obstruction	90%
	Surgical airway anatomy	98%
	Transcutaneous pacing troubleshooting	89%
	Treatment of Vertigo	95%
Genetics (GEN)	Diagnosis delayed puberty	93%
Mental Health (MH)	Management of panic disorder	41%
	Monitoring of ADHD medication	84%

	Safe monitoring of lithium in severe depression	55%
	Switching antidepressants	22%
	Symptoms SSRI withdrawal syndrome	73%
Musculoskeletal (MSK)	Diagnosis of anterior knee pain in an adolescent	97%
	Management of heel pain in an athlete	52%
	Management of supracondylar fracture	86%
Obstetrics and Gynaecology (O&G)	Abnormal cervical screening result	80%
	Cervical Screening	68%
	Contraception	70%
	Diagnosis of menorrhagia	46%
	Diagnosis of post coital bleeding	74%
	Evaluation of ovulation in infertility	70%
	Follow up of gestational diabetes	63%
	Infectious diseases in pregnancy	51%
	Management of menopause	71%
	Management of post-partum thyroiditis	59%
	Medications to avoid in pregnancy	41%
	Pregnancy vaccination	91%
	Prescribing of combined oral contraceptive pill	43%
	Supplementation in pregnancy	4%
	Unwanted pregnancy	79%
Ophthalmology (OPH)	Safe issuing of a driving licence	46%
Paediatrics (PAED)	Diagnosis of children rash	30%
	Diagnosis of hip pain teenager	93%
	Treatment of suppurative otitis media	69%
Palliative Care (PALL)	Management of haemoptysis	79%
	Management of cough in the palliative care patient	27%
	Metastatic disease and Pain management	33%
	Therapeutic guidelines - End of life care	98%
Pharmaceuticals (PHARM)	Local anaesthetic infiltration pain	83%
	Local anaesthetic with adrenaline	59%
Population Health (POP)	Preventive health strategies in GP	10%
Sexual Health (SEXH)	Management of acute epididymo-orchitis	15%

	Management of premature ejaculation	88%
	Prostate cancer screening recommendations	20%
Surgery (SURG)	Diagnosis of pituitary mass	85%
	Diagnosis of testicular swelling	54%
	Management of urinary obstructive symptoms	92%
	Obtaining informed consent	55%
	Treatment of Peripheral artery disease	69%

Candidates and Educators guidance

The commentary is provided to assist candidates in preparation for this exam and educators who are supporting candidates. Brief individualised feedback (coaching reports) is routinely provided.

The Multiple-Choice Question Familiarisation Activity (MCQFA) is now available to trainees all year round. It provides candidates the opportunity to become familiar with the format of questions used in an actual MCQ assessment in addition to the online exam platform. Candidates can complete the activity over a number of hours; however, it is suggested that candidates attempt the MCQFA under ‘simulated assessment conditions’ and without accessing additional resources or support.

The questions appearing in the MCQFA have previously appeared on summative MCQ exams. The MCQFA now more closely resembles a summative MCQ examination, with respect to the level of difficulty and content assessed. The college plans to review its content in lead up to the 2025 MCQ exams.

In addition, ACRRM’s “Introduction to MCQ Assessment” online module on Canvas, available all year round to people with access to ACRRM’s online learning portal, was first made available in January 2020. This module gives insight into how an exam is assembled, how individual questions are structured, and offers guidelines to developing practice MCQs.

For a list of advised resources please refer to *page 27* of the [Handbook for Fellowship Assessment](#).

Survey Feedback

Following the assessment, candidates are encouraged to provide feedback via an online survey. Feedback is reviewed and considered accordingly and may be used to drive continuous improvement and improve candidate and examiner experience for future assessments.

Based on feedback of candidates from the 2024B cohort, the following themes were identified:

- The information provided by ACRRM was timely and clear, including understanding the process for locating an appropriate venue and invigilator Ability to sit the exam close to home was beneficial to candidates.
- Ease of enrolment process and provision of sufficient information to make an informed decision to enrol.
- The information and briefing sessions were found to be very useful to understand online format.
- Invigilators are supported and equipped with the necessary information necessary to assist with the assessment requirements.
- The MCQFA allowed candidates to become familiar with the question format and online platform although it was suggested the College review its content to ensure questions are current and like the summative exam.
- The questions ensured a broad coverage of the curriculum and was set at the appropriate level of difficulty to allow candidates to demonstrate their applied clinical knowledge.

Evaluation

Led by the Assessment Committee, ACRRM undertakes a cycle of quality improvement in its suite of assessments, including the CGT MCQ. ACRRM has an ongoing commitment to improve the transparency and reliability of its assessments and to ensure its assessment systems are comprehensible to Registrars and Educators. Work is ongoing to review and update preparation tools, recruitment and training of writers and standard setting experts, professional development, and to improve qualitative feedback for candidates.

Improvements have included the recruitment of more MCQ writers and inclusion of a resources list in the handbook for Fellowship Assessment. It is intended that the MCQFA be reviewed with the objective of providing more questions to candidates to use in preparation that are more similar to the summative MCQs.

Acknowledgements

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