Assessment Public Report

Advanced Specialised Training in Emergency Medicine - Structured
Assessment using Multiple Patient Scenarios

AST EM StAMPS 2023A

Purpose

This public report provides information for candidates, supervisors, educators and training organisations and is produced following each Emergency Medicine (EM) Structured Assessment using Multiple Patient Scenarios (StAMPS). It includes information on the conduct, outcome, statistics and commentary for the most recent delivery of the assessment. Past public reports are available on the [ACRRM website](#).

Introduction

The StAMPS assessment is an oral assessment in which the candidate is presented eight realistic rural medicine scenarios. Candidates are asked three questions over 10 minutes for each scenario. StAMPS aims to test higher order thinking skills in a highly contextualised framework. Candidates are expected to explain how they would approach a given situation, demonstrating clinical reasoning, not only knowledge of facts in the emergency setting.

The 2023A AST EM StAMPS was held on 22 April 2023.

Overall Outcome

A total of 20 candidates sat the 2023A exam, with 7 of the candidates passing. The overall pass rate was 35%.

This cohort of registrars was smaller than usual and with a higher percentage of candidates who had sat EM StAMPS previously. Most first-time candidates had received RPL for EM training time. It is important that future candidates for EM StAMPS have recent or current EM practice experience to support their preparation and maximise their chance of success in this assessment.

Assessment Statistics

The pass mark for 2023A was 196 out of a theoretical maximum of 336. Candidates who scored within 11 points of the cut score (i.e., 185 or higher) were formally reviewed. Just one candidate scored in this range and was reviewed. The pass rates are shown by attempt number in the table below.

Table 1: Breakdown of pass rates by number of attempts

Attempt number	Total Number	% of Cohort	Number Passed	Pass Rate (%)
1	7	35	2	28.6
2+	13	65	5	38.5
All	20	100	7	35.0

For historical context, the overall pass rates for previous exams are illustrated in the plot below:
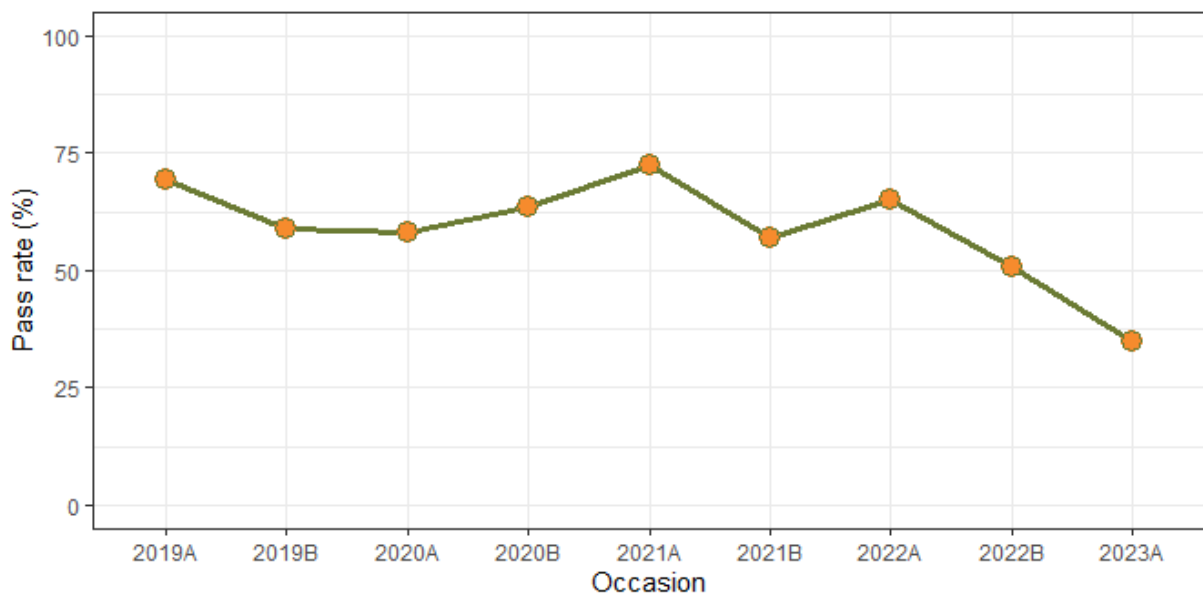
Conduct of the Exam

The assessment was conducted according to the previously established processes for EM-StAMPS delivery via the Zoom platform.

Candidates were provided a 'Community Profile' that described the demographics, logistics and health service availability of a simulated rural community in which the assessment is set. This ensures consistency of assessment delivery and marking for all candidates regardless of their actual practice location. The Community Profile used was unchanged from recent previous EM-StAMPS exams. The current Community Profile is published on the ACRRM website and available to view by the general public.

Candidates were provided with 10 minutes of reading time prior to the start of the first scenario to review the provided printed material. 10 minutes were scheduled between scenarios to ensure there was at least 5 minutes for reading time and a buffer to accommodate for any technical audio-visual issues and/or allow troubleshooting. Candidates remained on one continuous videoconference link throughout the assessment with an

ACRRM room monitor online and a nominated invigilator on-site. Examiners moved between the virtual rooms.

A single group of eight examiners, were selected based on their clinical expertise and their considerable experience with the StAMPS modality.

Further information may be found in the Handbook for Fellowship Assessment.

Quality Assurance

Extensive quality assurance and analysis is undertaken prior to, throughout and following the assessment to ensure that:

- scenarios are appropriate, at the correct level and consistent with previous AST EM StAMPS
- assessors mark fairly and consistently
- any process issues are considered

In the weeks prior to the assessment, moderation sessions are held with individual assessors to "fine tune" scenarios to minimise any ambiguities, develop appropriate probing questions, and to consider "Borderline" and "Fail" criteria to be in line with the level expected of AST in EM StAMPS candidates.

A QA examiner observed candidate performances and their scores were not included in the candidates' total scores and therefore did not affect the overall outcome, serving only a Quality Assurance function. All candidates' scenarios were videorecorded. These recordings are retained until reconsideration, review and appeal processes are completed and then are destroyed.

Grading and Scoring Overview

Following from its inception in 2021A for CGT StAMPS and 2022A for EM StAMPS, the BARS grading and scoring system was used in this exam.

Candidate performance is graded against a rubric and behaviour anchors on an 8-point linear scale. Each scenario offers the candidate the opportunity to earn up to 7 points on 6 items/domains which are scored independently.

1. Management in Part 1 that incorporates relevant medical and rural contextual factors
2. Management in Part 2 that incorporates relevant medical and rural contextual factors
3. Management in Part 3 that incorporates relevant medical and rural contextual factors
4. Problem Definition & Systematic Approach
5. Communication & Professionalism
6. Flexibility to changing context

Scenario Development

The 2023A EM StAMPS exam consisted of 8 scenarios aligned to the BARS format. New scenarios were written and standardised by the Lead Examiner and EM StAMPS review panel to confirm contemporary relevance and AST standard. Previously used scenarios were reviewed and this resulted in some updating, wording changes, adjustment of complexity and development of suggested 'probing questions' to be used by the examiners.

As a further quality assurance measure, all new scenarios for this exam underwent review by a Delphi panel of three examiners (selected to optimise diversity) who were asked to recommend changes, grade difficulty, and outline an expected satisfactory answer.

Once deemed suitable, all 8 scenarios were put through a moderation process with the Lead Examiner and the examiners who delivered each scenario on the exam day.

Curriculum Blueprint

The table below provides a brief overview of the 2023A scenarios, the domains of the curriculum assessed and percentage of candidates who examiners felt "met the standard" in each scenario.

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

Topics covered and percentage pass rate:

Scenario	Topics covered	Domains	Pass Rate
1	Complete Heart Block	1,4,8	30%
2	Perforated viscus/elderly patient	1,4,7,8	45%
3	Paediatric gastroenteritis/dehydration/hypoglycaemia	1,4,7,8	55%
4	Acute behavioural disturbance	1,4,7,8	55%
5	Urinary retention	1,4,8	70%
6	Laryngeal fracture	1,4,8	30%
7	MBA	1,4,8	35%
8	Respiratory Sepsis	1,4,8	70%

The Cronbach alpha for this assessment was 0.82 consistent with a high degree of internal consistency. Broken down further, within item domain the alpha values are shown in the following table.

Cronbach alpha within item domains:

Management	Structure	Communication	Flexibility
0.804	0.777	0.82	0.726

Although Cronbach's alpha is commonly calculated and reported, it should be noted that it is not a measure of validity or quality.

Candidate and Educator Guidance

The following commentary is provided to assist candidates in understanding their results, future candidates in preparation for this assessment and educators who are supporting candidates. Brief individualised feedback is routinely provided, but this does not entirely capture the differences between success and non-success. Therefore, it is recommended that individual results and feedback be read in conjunction with the comments below.

Passing the AST EM StAMPS requires a candidate to demonstrate their ability to manage emergency presentations as outlined below:

- Demonstrate a structured approach to autonomously stabilise and initially manage all emergency patients across all Australian Triage categories.
- Competently provide definitive emergency medical care for most emergency patients and determine when additional support from experienced colleagues is required (Which may be through distance telehealth technology).
- Interpret common EM investigations and be able to provide a contextualised differential diagnosis
- Describe the technique of performing procedural skills described in the curriculum documents or EM Logbook
- Provide continuity of care for patients in the Emergency Department pending admission to hospital, transfer to another facility, or awaiting discharge.
- Provide collegial support and clinical advice to colleagues in more remote settings via telehealth technology
- Take a leadership role in the Emergency Department as the most senior doctor on duty

Further information may be found in the Advanced Specialised Training Emergency Medicine Guidebook. In addition to the abilities required in the CGT curriculum for EM, doctors achieving AST in EM are required to be able to competently provide definitive emergency medical care including common emergency medicine procedural interventions for individual patients across all presentations including Australian Triage Category 1 and 2.

ACRRM has a number of preparation activities available to candidates to prepare for this assessment including a StAMPS Assessment online module that is available to all members.

It is noted that candidates who have significant current or recent EM experience appear to be significantly better prepared to sit the EM StAMPS exam.

Survey Feedback

Following the exam, examiners, candidates and invigilators 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, invigilator and examiner experience for future exams.

Based on feedback received from the 2023B cohort of candidates and invigilators, the following themes were identified:

- Strong preference for online delivery on a weekend allowing doctors to attempt exams from preferred locations without the burden of travel; however, can be difficult to find venue and/or invigilator during the weekend

- The exam was a positive experience and very well organised
- The assessment team was very professional and supportive; examiners are professional
- The study groups and mock stamps are useful preparation tools
- The exam was aligned to the curriculum and measured the clinical content at the expected level
- Trouble shooting and technical support was appropriate

Evaluation

Led by the Assessment Committee, ACRRM undertakes a cycle of quality improvement in its suite of assessments, including the EM StAMPS.

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 the 'Community Profile', assessor recruitment, training, professional development, feedback and to improve qualitative feedback for candidates.

Acknowledgements

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