



Assessment Public Report

Advanced Specialised Training in Emergency Medicine –

Structured Assessment using Multiple Patient Scenarios

AST EM StAMPS 2022A

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 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. The 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 AST EM StAMPS is based on the Advanced Specialised Training (AST) Emergency Medicine (EM) curriculum. The scenarios used in this assessment are based on real-life emergency medicine scenarios and are written by practising Fellows of ACRRM with extensive experience in emergency medicine; then reviewed by a panel of doctors who are also Fellows of ACRRM and/or the Australian College of Emergency Medicine (ACEM).

The first public report for the AST EM StAMPS assessment was released following the 2016B EM StAMPS exam.

Overall Outcome

A total of 37 candidates sat the 2022A exam, of which 24 candidates passed. The overall pass rate was 64.9%.

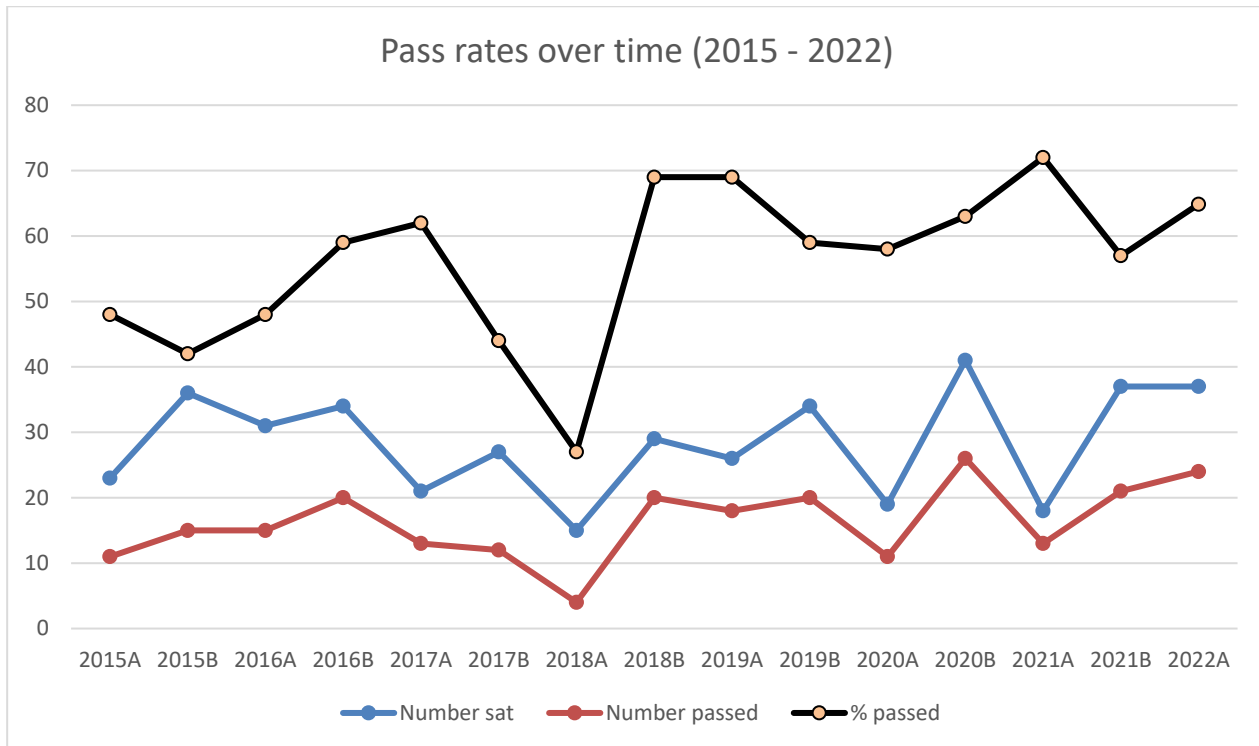
Assessment Statistics

The total number of candidates is consistent with other EM StAMPS exams. The pass rate of 64.9% is higher than the 2021B exam (56.8%), but slightly lower than the 2021A exam (72.2%). Note that due to smaller exam numbers, caution is urged in interpreting the percentage pass rates with such small numbers.

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



Figure 1: Historical Pass Rates between 2015 – 2022



Conduct of the Exam

The 2022A EM StAMPS was held on 2 July 2022 and delivered exclusively online (via the Zoom platform) across Australia.

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. Candidates are permitted to refer to the profile during the interval time and throughout the assessment. The 'Community Profile' is published on the ACRRM webpage and updated regularly.

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 virtual room link throughout the assessment with an ACRRM room monitor online and a nominated invigilator on-site. Assessors moved between the virtual rooms.

Assessors are a combination of Fellows of ACRRM with advanced skills in emergency medicine and Fellows of ACEM. Assessors are trained for the role. There were a number of trainee assessors who have completed training and examined at previous Mock and EM StAMPS exams. A quality assurance assessor undertakes parallel marking and co-marks with any trainee assessors over the assessment.

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.

Grading and Scoring Overview

This exam used the grading and scoring system adopted by CGT StAMPS in 2021.

Key features of the scoring system included:

- Scoring each part of each scenario individually (24 data points, weighted equally) instead of overall performance in each scenario as a whole (8 data points)
- Incorporating all scores into the outcome, instead of mainly the Overall Impression rating
- Simplified outcome determination based on a simple sum of scores achieved without any alteration or processing of results
- Anchoring scores to a pre-determined rubric and behavioural anchors
- Use of a linear interval scale instead of ordinal non-scaled categories
- Use of 8 graduations in the linear scale instead of 4 categories to allow finer definition of scores
- Use of Examiner Impression as a Quality Assurance measure
- Increased ability to perform robust statistical analysis for post-hoc validation

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

Curriculum Blueprint

The table below provides a brief overview of the 2021B scenarios, the **main** and **secondary** domains of the curriculum assessed in the AST EM StAMPS and percentage of candidates who assessors 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***

Scenarios were mapped to the AST curriculum and each scenario comprised three distinct issues which were linked by a common thread but also “stood alone” from a marking perspective i.e. ability to answer the second or third parts of the scenario was not dependent on providing a correct answer to the preceding part of the scenario.

Topics covered and percentage pass rate

Scenario	2022A Topics covered	Pass rate
1	Chest Trauma	75.7%
2	Preterm birth	56.8%
3	Ventricular tachycardia	70.3%
4	Respiratory sepsis	73.0%
5	Chemical restraint	83.8%
6	Severe Croup	86.5%
7	Procedural sedation	86.5%
8	Dislocated hip	91.9%

The pass rates of individual scenarios varied from 57 - 92%. This was similar to previous years, although scenario 2 was lower than usual. (In previous cohorts, 2020A, 2020B, 2021A and 2021B, the pass rates of individual scenarios ranged from 63-95%, 68-88%, 78-94% and 60-86% respectively).

Cronbach’s Alpha reliability analysis across 8 stations with scenario total scores was 0.82 (high).

Candidates and Educator Advice

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:

- 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).
- 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 and the Regional Training Organisations have a number of preparation activities available to candidates to prepare for this assessment including an online StAMPS module that is now 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.

Scenario Development

The 2022A EM StAMPS exam consisted of previously used scenarios which were extensively rewritten to reflect contemporary practice and be of AST standard as well as aligning to BARS format. This was the first EM StAMPS exam to use BARS.

As a quality assurance measure, all scenarios in this exam underwent review by the EM StAMPS review panel to confirm contemporary relevance and AST standard. This resulted in some updating, wording changes, adjustment of complexity and development of suggested 'probing questions' to be used by the examiners.

Once deemed suitable, all 8 scenarios for 2022A were put through a moderation process by the Lead Examiner with the examiners who delivered each scenario on the exam day.

Survey Feedback

Following the exam, assessors, 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 assessor experience for future exams.

Based on feedback received from the 2022A cohort of candidates and invigilators, the following themes were identified:



- Being in a familiar environment when answering questions
- Not having to travel and stay elsewhere
- The admin team was very professional and supportive
- Trouble shooting and dealing with technical issues are dealt with rapidly and efficiently by the ACRRM Assessment team
- Examiners are professional and friendly

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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