Australian Commission on Safety and Quality in Health Care

Clinical Care Standards

Evidence Sources: Emergency Laparotomy Clinical Care Standard 2026

Introduction

The quality statements for the *Emergency Laparotomy Clinical Care Standard* were developed in consultation with the Emergency Laparotomy Clinical Care Standard Topic Working Group based on best available evidence and guideline recommendations.

Literature searches are conducted by the Australian Commission on Safety and Quality in Health Care (the Commission) at different stages during the development and review of a Clinical Care Standard and include searching for current and relevant:

- Australian clinical practice guidelines, standards and policies
- International clinical practice guidelines
- Other high-level evidence, such as systematic reviews and meta-analyses.

Where limited evidence is available, the Commission consults with a range of stakeholders to explore issues and develop possible solutions.

An overview of the key evidence sources for the *Emergency Laparotomy Clinical Care Standard* is presented in Table 1. A full list of the evidence sources for each quality statement (QS) is also included.

Overview of key evidence sources

Table 1 Overview of the key evidence sources for the Emergency Laparotomy Clinical Care Standard*

Evidence source	Relevance to the draft quality statements (QS)								
	QS1. Rapid assessment and escalation	QS2. Diagnostic imaging	QS3. Assessment of risk	QS4. Shared decision making and goals of care	QS5. Timely access to surgery	QS6. Presence of consultant doctors during surgery	QS7. Postoperative critical care	QS8. Proactive assessment and collaborative management of the older patient	QS9. Transition from hospital care
Australian guidelines and standards									
Australian Commission on Safety and Quality in Health Care. Sepsis Clinical Care Standard. Sydney: 2022.	✓								
Australia and New Zealand College of Anaesthetists. A framework for perioperative care in Australia and New Zealand. 2023.				✓					
Australian and New Zealand College of Anaesthetists. PG67(G) Guideline for the care of patients at the end-of-life who are considered for surgery or interventional procedures 2022.				✓					

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International guidelines and standards									
Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS®) Society Recommendations: Part 1 – Pre-operative: Diagnosis, Rapid Assessment and Optimization.	✓	✓	✓	✓	✓				
Consensus Guidelines for Perioperative Care for Emergency Laparotomy ERAS Society Recommendations Part 2 – Emergency Laparotomy: Intra- and Postoperative Care.				✓			✓	✓	✓
ERAS Society Consensus Guidelines for Emergency Laparotomy Part 3 – Organizational Aspects and General Considerations for Management of the Emergency Laparotomy Patient	✓			✓		✓	✓	✓	
Royal College of Surgeons of England. The high-risk general surgical patient: raising the standard. London: 2018.	✓		✓			✓	✓		

* Only key Australian and International sources are included in this table. Other evidence sources are listed in the following tables for each quality statement.

EVIDENCE SOURCES FOR EACH QUALITY STATEMENT

QS 1: Rapid assessment and escalation	**A patient with symptoms suggestive of a time-critical intra-abdominal condition – including infection, perforation, bleeding, obstruction or ischaemia – is rapidly assessed and escalated in line with local protocols. If clinical assessment or initial investigations indicate the patient may need an emergency laparotomy, they are promptly referred for surgical review. In critically ill patients, investigations include blood lactate measurement.** **When sepsis is suspected, care is initiated urgently in accordance with the local sepsis pathway and the *Sepsis Clinical Care Standard*.**

QS1 evidence sources

Australian guidelines and standards
Australasian College for Emergency Medicine. Guidelines on the implementation of the Australasian Triage Scale in emergency departments. ACEM, 2022.
Australian Commission on Safety and Quality in Health Care. Sepsis Clinical Care Standard. Sydney: 2022.
International guidelines and standards
Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Balfour A, Foss NB, et al. Enhanced Recovery After Surgery (ERAS®) Society Consensus Guidelines for Emergency Laparotomy Part 3: Organizational Aspects and General Considerations for Management of the Emergency Laparotomy Patient. World J Surg. 2023 Aug;47(8):1881–1898.
Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Bang Foss N, Cooper Z, et al. Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS) Society Recommendations: Part 1–Preoperative: Diagnosis, Rapid Assessment and Optimization. World J Surg. 2021 May;45(5):1272–1290.
Royal College of Emergency Medicine. RCEM Advisory Statement Regarding the Management of Adults Presenting to the Emergency Department Who May Require an Emergency Laparotomy. 2024.
Royal College of Surgeons of England. The high-risk general surgical patient: raising the standard. London: 2018.
Jobin SP, Maitra S, Baidya DK, et al. Role of serial lactate measurement to predict 28-day mortality in patients undergoing emergency laparotomy for perforation peritonitis: prospective observational study. J Intensive Care. 2019;7:58.

QS2: Diagnostic imaging	A patient with symptoms suggestive of a time-critical intra-abdominal condition has a computed tomography (CT) scan as soon as possible, with intravenous contrast unless contraindicated. The radiologist verbally communicates critical findings to the referring or responsible clinician, within one hour of the scan being performed. Acquiring a CT scan should not delay very urgent surgery.

QS2 evidence sources

Australian guidelines and standards
The Royal Australian and New Zealand College of Radiologists. Standards of Practice for Clinical Radiology, Version 11.2. Sydney: RANZCR, 2020.
The Royal Australian and New Zealand College of Radiologists. Position statement: Clinical radiology critical results and adverse outcomes notification v1.1. RANZCR, 2024.
The Royal Australian and New Zealand College of Radiologists. Iodinated Contrast Media Guideline. Sydney: RANZCR, 2018.
International guidelines and standards
American College of Radiology. ACR Appropriateness Criteria Acute Nonlocalised Abdominal Pain ACR, 2018.
Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Bang Foss N, Cooper Z, et al. Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS) Society Recommendations: Part 1–Preoperative: Diagnosis, Rapid Assessment and Optimization. World J Surg. 2021 May;45(5):1272–1290.
Royal College of Emergency Medicine and Royal College of Radiologists. Joint Advisory Statement between Royal College of Radiologists & Royal College Emergency Medicine regarding Emergency Computed Tomography scans and the use of Intravenous Iodinated Contrast Agents. 2023.

QS3: Assessment of risk	**A patient being considered for an emergency laparotomy has their risk assessed and documented before surgery, using a locally endorsed, validated mortality risk prediction tool in addition to clinical judgement. In older patients, frailty, cognitive impairment and delirium are identified and documented preoperatively using brief, validated tools.** **This information helps inform care pathways, interdisciplinary communication and discussions with patients and those supporting them.**

QS3 evidence sources

International guidelines and standards
Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Bang Foss N, Cooper Z, et al. Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS) Society Recommendations: Part 1–Preoperative: Diagnosis, Rapid Assessment and Optimization. World J Surg. 2021 May;45(5):1272–1290.
Royal College of Surgeons of England. The high-risk general surgical patient: raising the standard. London: 2018.
Additional sources
British Geriatrics Society. BGS Position Statement: Older Patients Undergoing Emergency Laparotomy. 2020.
Hunter Emergency Laparotomy Collaborator Group. High-Risk Emergency Laparotomy in Australia: Comparing NELA, P-POSSUM, and ACS-NSQIP Calculators. J Surg Res. 2020 Feb;246:300-304.
Tieges Z, Maclullich AMJ, Anand A, Brookes C, Cassarino M, O'Connor M, et al. Diagnostic accuracy of the 4AT for delirium detection in older adults: systematic review and meta-analysis. Age Ageing. 2021 May 5;50(3):733-743.
Tran ET, Ho KM. Utility of the National Emergency Laparotomy Audit prognostic model in predicting outcomes in an Australian health system. Anaesth Intensive Care. 2023 Jan;51(1):51-58.

QS4: Shared decision making and goals of care	**When an emergency laparotomy is being considered, there is shared decision making about the patient's treatment plan with the patient and their family, support people or substitute decision-makers as appropriate. The patient's goals of care are discussed and documented before surgery, and updated throughout the perioperative period.** **When surgery may be non-beneficial, senior doctors are involved in discussing the likely outcomes, benefits and risks of surgical and non-surgical approaches to support shared decision making.**

QS4 evidence sources

Australian guidelines and standards

Australia and New Zealand College of Anaesthetists. A framework for perioperative care in Australia and New Zealand. 2023.

Australian and New Zealand College of Anaesthetists. PG67(G) Guideline for the care of patients at the end-of-life who are considered for surgery or interventional procedures 2022. ANZCA, 2022.

Australian Commission on Safety and Quality in Health Care. National consensus statement: Essential elements for safe and high-quality end-of-life care. 2023.

International guidelines and standards

Centre for Perioperative Care (CPOC). Guideline for Perioperative Care for People Living with Frailty Undergoing Elective and Emergency Surgery. 2021.

Peden CJ, Aggarwal G, Aitken RJ, et al. Enhanced Recovery After Surgery (ERAS®) Society Consensus Guidelines for Emergency Laparotomy Part 3: Organizational Aspects and General Considerations for Management of the Emergency Laparotomy Patient. World J Surg. 2023 Aug;47(8):1881–1898.

Peden CJ, Aggarwal G, Aitken RJ, et al. Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS) Society Recommendations: Part 1–Preoperative: Diagnosis, Rapid Assessment and Optimization. World J Surg. 2021 May;45(5):1272–1290.

Additional sources

Anstey MH, Senthuran S. The what-if approach to perioperative planning. Anaesth Intensive Care. 2023 May;51(3):168-169.

Kruser JM, Nabozny MJ, Steffens NM, Brasel KJ, Campbell TC, Gaines ME, et al. "Best Case/Worst Case": Qualitative Evaluation of a Novel Communication Tool for Difficult in-the-Moment Surgical Decisions. J Am Geriatr Soc. 2015 Sep;63(9):1805-1811.

QS5: Timely access to surgery	A patient having an emergency laparotomy commences surgery within the timeframe specified by their assigned surgical urgency category.

QS5 evidence sources

International guidelines and standards
Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Bang Foss N, Cooper Z, et al. Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS) Society Recommendations: Part 1–Preoperative: Diagnosis, Rapid Assessment and Optimization. World J Surg. 2021 May;45(5):1272–1290.
Royal College of Surgeons of England. The high-risk general surgical patient: raising the standard. London: 2018.
Additional sources
Boyd-Carson H, Doleman B, Cromwell D, Lockwood S, Williams JP, Tierney GM, et al. Delay in Source Control in Perforated Peptic Ulcer Leads to 6% Increased Risk of Death Per Hour: A Nationwide Cohort Study. World J Surg. 2020 Mar;44(3):869-875.
De Waele JJ. Importance of timely and adequate source control in sepsis and septic shock. J Intensive Med. 2024 Jul;4(3):281-286.
NSW Agency for Clinical Innovation. NSW emergency surgery guidelines and principles for improvement. Sydney: ACI, 2021.
Royal Australasian College of Surgeons. RACS Position Paper: Emergency Surgery. 2015.

QS6: Presence of consultant doctors during surgery	A high-risk emergency laparotomy patient (mortality risk ≥5%) has a consultant surgeon and a consultant anaesthetist present in theatre during their surgery.

QS6 evidence sources

International guidelines and standards
Royal College of Surgeons of England. The high-risk general surgical patient: raising the standard. London: 2018.
Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Balfour A, Foss NB, et al. Enhanced Recovery After Surgery (ERAS®) Society Consensus Guidelines for Emergency Laparotomy Part 3: Organizational Aspects and General Considerations for Management of the Emergency Laparotomy Patient. World J Surg. 2023 Aug;47(8):1881–1898.
Additional sources
Royal Australasian College of Surgeons. RACS Position Paper: Emergency Surgery. 2015.

QS7: Postoperative critical care	A patient’s postoperative critical care needs are considered based on mortality risk, frailty, comorbidities and clinical judgement. A patient with a mortality risk ≥10% is discussed with a consultant intensivist for consideration of direct postoperative admission to critical care.

QS7 evidence sources

Australian guidelines and standards

Australian Commission on Safety and Quality in Health Care. National consensus statement: Essential elements for recognising and responding to acute physiological deterioration. 2021.

International guidelines and standards

Scott MJ, Aggarwal G, Aitken RJ, Anderson ID, Balfour A, Foss NB, et al. Consensus Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS®) Society Recommendations Part 2-Emergency Laparotomy: Intra- and Postoperative Care. World J Surg. 2023 Aug;47(8):1850–1880.

Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Balfour A, Foss NB, et al. Enhanced Recovery After Surgery (ERAS®) Society Consensus Guidelines for Emergency Laparotomy Part 3: Organizational Aspects and General Considerations for Management of the Emergency Laparotomy Patient. World J Surg. 2023 Aug;47(8):1881–1898.

Additional sources

Ludbrook G, Lloyd C, Story D, Maddern G, Riedel B, Richardson I, et al. The effect of advanced recovery room care on postoperative outcomes in moderate-risk surgical patients: a multicentre feasibility study. Anaesthesia. 2021 Apr;76(4):480-488.

Vester-Andersen M, Lundstrøm LH, Møller MH, Waldau T, Rosenberg J, Møller AM. Mortality and postoperative care pathways after emergency gastrointestinal surgery in 2904 patients: a population-based cohort study. Br J Anaesth. 2014 May;112(5):860-870.

QS8: Proactive assessment and collaborative management of the older patient	**An older patient who has an emergency laparotomy is proactively assessed and collaboratively managed by an appropriate physician, such as a geriatrician, skilled in the perioperative care of older adults. This assessment occurs as early as practicable and no later than 72 hours following presentation to hospital.**

QS8 evidence sources

Australian guidelines and standards
Australia and New Zealand College of Anaesthetists. A framework for perioperative care in Australia and New Zealand. 2023.
Australian and New Zealand Society for Geriatric Medicine. ANZSGM Position Statement Perioperative Care of Older People. ANZSGM; 2022.
International guidelines and standards
British Geriatrics Society. BGS Position Statement: Older Patients Undergoing Emergency Laparotomy. 2020.
Centre for Perioperative Care. Guideline for Perioperative Care for People Living with Frailty Undergoing Elective and Emergency Surgery. London: CPOC; 2021
Peden CJ, Aggarwal G, Aitken RJ, Anderson ID, Balfour A, Foss NB, et al. Enhanced Recovery After Surgery (ERAS®) Society Consensus Guidelines for Emergency Laparotomy Part 3: Organizational Aspects and General Considerations for Management of the Emergency Laparotomy Patient. World J Surg. 2023 Aug;47(8):1881–1898.
Scott MJ, Aggarwal G, Aitken RJ, Anderson ID, Balfour A, Foss NB, et al. Consensus Guidelines for Perioperative Care for Emergency Laparotomy Enhanced Recovery After Surgery (ERAS®) Society Recommendations Part 2-Emergency Laparotomy: Intra- and Postoperative Care. World J Surg. 2023 Aug;47(8):1850–1880.
Additional sources
Aitken RM, Partridge JSL, Oliver CM, Murray D, Hare S, Lockwood S, et al. Older patients undergoing emergency laparotomy: observations from the National Emergency Laparotomy Audit (NELA) years 1-4. Age Ageing. 2020 Jul 1;49(4):656-663.
Boden I, Sullivan K, Hackett C, Winzer B, Hwang R, Story D, et al. Intensive physical therapy after emergency laparotomy: Pilot phase of the Incidence of Complications following Emergency Abdominal surgery Get Exercising randomized controlled trial. J Trauma Acute Care Surg. 2022 Jun 1;92(6):1020-1030.
Oliver CM, Bassett MG, Poulton TE, Anderson ID, Murray DM, Grocott MP, et al. Organisational factors and mortality after an emergency laparotomy: multilevel analysis of 39 903 National Emergency Laparotomy Audit patients. Br J Anaesth. 2018 Dec;121(6):1346-1356.
Partridge J, Sbai M, Dhesi J. Proactive care of older people undergoing surgery. Aging Clin Exp Res. 2018 Mar;30(3):253-257.

QS9: Transition from hospital care	**Before a person leaves hospital following an emergency laparotomy, an individualised care plan is developed describing their ongoing care needs. The plan addresses medicines, pain management, nutrition, wound care, and other services and supports needed to optimise recovery and reduce the risk of complications.** **The written plan is provided to the patient and their support people before they leave hospital. At the time of discharge, the plan is communicated to the patient's general practice, and to clinicians and other care providers involved in their ongoing care.**

QS9 evidence sources

Australian guidelines and standards
Australian Commission on Safety and Quality in Health Care. Delirium Clinical Care Standard. ACSQHC, 2021.
Australian Commission on Safety and Quality in Health Care. Sepsis Clinical Care Standard. Sydney: 2022.
Australian Commission on Safety and Quality in Health Care. Venous Thromboembolism Prevention Clinical Care Standard. Sydney: ACSQHC; 2020.
Additional sources
Silva L, Crole Rees C, Watts T, Bisson J, Cornish J. SP4.2.2 Recovery after Emergency Laparotomy – what do patients want? British Journal of Surgery. 2022;109(Supplement_5).