

Emergency Laparotomy Clinical Care Standard

Consultation Draft

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Quality statements

1. Rapid assessment and escalation

A patient with symptoms suggestive of a time-critical intra-abdominal condition – such as 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 and blood lactate is measured.

When sepsis is suspected, care is initiated urgently in accordance with the local sepsis pathway and the Sepsis Clinical Care Standard.

2. Diagnostic imaging

A patient with symptoms suggestive of a time-critical intra-abdominal condition has a CT scan as soon as possible, with intravenous contrast unless contraindicated. Critical findings are communicated verbally by the radiologist to the referring or responsible clinician, within one hour of the scan being performed. Acquiring a CT scan should not delay very urgent surgery.

3. Assessment of risk

A patient being considered for an emergency laparotomy has their risk assessed and documented before surgery, using a 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 as part of risk assessment.

This information about risk is used to help inform appropriate care pathways, interdisciplinary communication and discussions with patients and those supporting them.

4. Shared decision making and goals of care

When an emergency laparotomy is being considered, shared decision making occurs with the patient about their treatment plan, and with their family, support people or substitute decision-makers as appropriate. The patient's goals of care are discussed and documented prior to surgery, and throughout the perioperative period. When surgery may be non-beneficial, senior doctors are involved in shared decision making discussions which explore the benefits, risks and likely outcomes of both surgical and non-surgical treatment.

5. Timely access to surgery

A patient having an emergency laparotomy commences surgery within the timeframe specified by their assigned surgical urgency category.

6. Presence of consultant doctors during surgery

A high-risk emergency laparotomy patient (including a mortality risk score $\geq 5\%$) has a consultant surgeon and a consultant anaesthetist present in theatre during their surgery.

7. Postoperative admission to critical care

A high-risk patient is considered for critical care admission based on mortality risk, frailty, comorbidities and clinical judgement. Patients with a mortality risk score $\geq 10\%$ are routinely admitted to a critical care unit following surgery.

8. Proactive assessment and collaborative management of the older patient

An older patient who has an emergency laparotomy is proactively assessed and collaboratively managed by a geriatrician – or other physician – experienced in the perioperative care of older adults. Physician assessment occurs as early as practicable and no later than 72 hours following presentation to hospital.

9. 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. It is communicated to clinicians involved in their ongoing care, including their General Practitioner and other relevant care providers, at the time of discharge.

Indicators for local monitoring

The following indicators will support healthcare services to monitor how well they are implementing the care recommended in this Clinical Care Standard. These indicators are intended to support local quality improvement activities.

Quality statement 1. Rapid assessment and escalation

Indicator 1a: Proportion of patients who had an emergency laparotomy whose blood lactate was available at first surgical review.

Quality statement 2. Diagnostic imaging

Indicator 2a: Proportion of patients who had an emergency laparotomy whose CT scan results were communicated verbally by a radiologist, within one hour of the scan being performed.

Indicator 2b: Time (Median and Mean hours) from referral to performing a CT scan for patients who had an emergency laparotomy.

Quality statement 3. Assessment of risk

Indicator 3a: Proportion of patients who had an emergency laparotomy whose risk was assessed using a locally approved mortality risk prediction tool and documented prior to surgery.

Indicator 3b: Proportion of patients who had an emergency laparotomy and were aged 65 years or older, whose frailty was assessed using a validated tool and documented prior to surgery.

Indicator 3c: Proportion of patients who had an emergency laparotomy and were aged 65 years or older, who were screened for cognitive impairment using a validated tool and the results were documented prior to surgery.

Quality statement 4. Shared decision making and goals of care

Indicator 4a: Proportion of patients who had an emergency laparotomy and were aged 65 years or older, whose goals of care were documented in their healthcare record prior to surgery.

Quality statement 5. Timely access to surgery

Indicator 5a: Proportion of patients who had an emergency laparotomy within the timeframe specified by their assigned surgical urgency category.*

**According to the local framework for categorising/ prioritising emergency surgeries*

Quality statement 6. Presence of consultant doctors during surgery

Indicator 6a: Proportion of patients who had an emergency laparotomy with a preoperative mortality risk score $\geq 5\%$ where a consultant surgeon was present in theatre during surgery.

Indicator 6b: Proportion of patients who had an emergency laparotomy with a preoperative risk score $\geq 5\%$ where a consultant anaesthetist was present in theatre during surgery.

Quality statement 7. Postoperative admission to critical care

Indicator 7a: Proportion of patients who had an emergency laparotomy with a preoperative mortality risk score $\geq 10\%$ admitted to a critical care unit immediately following surgery.

Quality statement 8. Proactive assessment and collaborative management of the older patient

Indicator 8a: Proportion of patients who had an emergency laparotomy who were aged 65 years or older and were assessed within 72 hours of hospital presentation by a geriatrician, or other appropriate physician.

Indicator 8b: Evidence of local arrangements to enable geriatrician or appropriate physician involvement in the proactive assessment and collaborative management of older patients who had an emergency laparotomy.

The local systems, pathways and protocols should ensure, at a minimum

- Timely involvement of a geriatrician or other physician with skills in the care of the older surgical patient
- Involvement of a geriatrician or other physician skilled in the care of the older surgical patient in the assessment and management of:
 - multimorbidity, frailty and geriatric syndromes throughout the perioperative pathway
 - post operative complications, hospital-acquired deconditioning, postoperative cognitive disorders and medications
- Proactive discharge planning with multidisciplinary input
- Facilitated access to appropriate sub-acute and restorative care services
- Shared understanding of roles and responsibilities in relation to the local arrangements
- Assess adherence to the local arrangements

Quality statement 9. Transition from hospital care

Indicator 9a: Evidence of local arrangements for the development of a written individualised care plan that describes the ongoing care needs for a patient who had an emergency laparotomy, prior to discharge from hospital.

The local arrangements should specify the:

- Process to involve the patient and their family or support people in the development of the care plan
- Process to ensure involvement from members of the multidisciplinary team in the development of the care plan as needed
- Process for addressing the specific needs of patients who were transferred out of their local area for surgery or rehabilitation
- Information that should be documented in the patient's care plan
- Process to ensure that the patient's care plan is shared with the patient, their nominated primary care provider, and other regular clinicians and care providers at the time of discharge from hospital
- Process to assess adherence to the local arrangements.

Indicator 9b: Proportion of patients who had an emergency laparotomy whose discharge summary was sent to their nominated primary care provider at the time of discharge from the hospital.

Overall indicators

Indicator 10a: Proportion of patients who had an emergency laparotomy who had an unplanned readmission to any hospital within 30 days of discharge.

Indicator 10b: Proportion of patients who had an emergency laparotomy and died within 90 days of their admitted patient episode of care.

Indicator 10c: Proportion of patients who had an emergency laparotomy and died within 30 days of their admitted patient episode of care.

Clinical Care Standards

A Clinical Care Standard describes the care that patients should be offered by clinicians and healthcare services for a specific clinical condition, treatment, procedure or clinical pathway, regardless of where people are treated in Australia. Clinical Care Standards aim to address unwarranted variation in health care or patient outcomes by increasing evidence-based health care for priority aspects of care.

Clinical Care Standards include:

- Quality statements that describe the expected standard for key components of patient care
- Explanations of what each quality statement means for
 - patients – so that people receiving care know what care may be offered and can make informed decisions in partnership with their clinician
 - clinicians – to support decisions about appropriate care
 - healthcare services – to inform them of the policies, procedures, and organisational factors that can enable the delivery of high-quality care
- Indicators to support local quality improvement, allowing clinicians and healthcare services to monitor the care described in the Standard.

Clinical Care Standards are developed by the Australian Commission on Safety and Quality in Health Care (the Commission). By working in partnership with the Australian Government, states and territories, the private sector, clinical experts, and patients and carers, the Commission aims to ensure that the health system is better informed, supported and organised to deliver safe and high-quality care.

National Safety and Quality Standards

Clinical care standards support quality improvement. Information about the role of clinical care standards for healthcare services providing care consistent with the [National Safety and Quality Health Service \(NSQHS\) Standards](#)¹ and the [National Safety and Quality Primary and Community Healthcare Standards \(Primary and Community Healthcare Standards\)](#)² can be found online.

See the Commission's [Fact sheet: Applicability of Clinical Care Standards](#)³ for more information.

About the Emergency Laparotomy Clinical Care Standard

Goals

The goals of this Clinical Care Standard are to:

- Optimise outcomes for patients having an emergency laparotomy including survival, quality of life and functional independence
- Ensure high-quality, timely assessment, diagnosis and management of patients undergoing emergency laparotomy
- Support good practice in decision making about a patient's treatment, consistent with their preferences, values and goals of care.

Scope

The Standard relates to the care that patients aged 18 and over should receive when they require emergency abdominal surgery on the gastrointestinal tract. This includes patients for whom surgery is indicated but who do not go on to have surgery. It applies from first presentation to an emergency care setting (or first recognition of deterioration on the ward) with potentially time-critical abdominal pathology, through to discharge planning and transition to primary and community care.

What is not covered

The Standard does not cover:

- Trauma laparotomy
- Emergency appendicectomy or cholecystectomy
- Primary emergency gynaecological or urological procedures

While patients aged below 18 years are not in scope for this Standard, it is recognised that patients aged 16-18 years of age are able to make decisions and provide consent to medical treatment in certain circumstances. Health services may choose to apply this Standard to patients under 18 years (mature minors) who are making decisions about their care when this is necessary and appropriate.

Healthcare settings

This Standard is particularly relevant to:

- Surgeons
- Anaesthetists
- Intensivists
- Geriatricians and general physicians
- Emergency physicians
- Radiologists
- Rural generalists
- Aboriginal and/or Torres Strait Islander health workers, health practitioners and liaison officers
- Nurses including emergency nurses
- Health service managers.

Not all quality statements within this Clinical Care Standard will be applicable to every healthcare service or clinical unit. Healthcare services should consider their individual circumstances in determining how to apply the statement.

When implementing this Clinical Care Standard, healthcare services should consider:

- The context in which care is provided
- Local variation
- Quality improvement priorities of the individual healthcare service.

Healthcare services in rural and remote settings may need different strategies to implement the Standard such as the use of hub-and-spoke models linking larger and smaller health services and the use of telehealth.

Evidence

Key sources that underpin the Standard include the following current clinical guidance:

- Enhanced Recovery After Surgery (ERAS) Society including the following Guidelines for Emergency Laparotomy:
 - [Part 1 - Preoperative: Diagnosis, Rapid Assessment and Optimization](#)⁴
 - [Part 2 – Emergency Laparotomy: Intra- and Postoperative Care](#)⁵
 - [Part 3 – Organisational Aspects and General Considerations for Management of the Emergency Laparotomy Patient](#)⁶
- Royal College of Surgeons of England (RCS) 2018 report, [The High-Risk General Surgical Patient: Raising the Standard](#)⁷
- National Emergency Laparotomy Audit (NELA) standards, indicators and reports including the [Ninth Patient Report](#)⁸
- Australia and New Zealand Emergency Laparotomy Audit – Quality Improvement (ANZELA-QI) [standards, key performance indicators and annual reports](#)⁹

See the Commission's Emergency Laparotomy Clinical Care Standard webpage for a full list of the evidence sources that support this Clinical Care Standard.

Terminology

Key terms used in the context of this Clinical Care Standard are described below. See also the [Glossary](#).

Term	How it is used in this document
patient	<p>The patient is the person receiving care. When the word ‘patient’ is used in this standard, it may include the person’s carer, family member, support people, or substitute decision-maker.</p> <p>Only the patient or their substitute decision-maker, such as a legal guardian, can give consent for care. However, carers, families and support people who are not substitute decision-makers may also support the patient in their decision making and actively participate in their care. These people should be given information and included in discussions when the patient wishes this to occur.</p>
clinicians	<p>Clinicians are all types of healthcare providers who deliver direct clinical care to patients. They include surgeons, anaesthetists, intensivists, emergency physicians, geriatricians, general physicians, nurses, pharmacists, Aboriginal and Torres Strait Islander health workers, Aboriginal and Torres Strait Islander health practitioners and allied health professionals.</p>
healthcare services	<p>Healthcare services are those responsible for leading and governing the service. They are the organisations responsible for implementing clinical governance, administration and financial management of one or more service units providing health care to patients.</p> <p>Health care is delivered in a wide range of settings. Services may vary in size and organisational structure from single healthcare providers to complex organisations.</p>

Supporting resources

See the Commission’s Emergency Laparotomy Clinical Care Standard webpage for supporting documents, including:

- Guide for consumers
- Information for clinicians
- Information for healthcare services
- Links to other implementation resources, templates and information.

Using indicators

Measurement is a key part of quality improvement. The indicators in this Clinical Care Standard allow clinicians and healthcare services to monitor and improve the care they provide as part of local quality improvement activities.

The specifications for each indicator are described in METEOR: [Metadata Online Registry](#). These define how to collect and calculate indicator data and describe the applicable healthcare settings.

When using the indicators note that:

- Indicators are listed with the related quality statement
- The Commission does not set benchmarks for the Clinical Care Standard indicators
- Services may use other relevant measures in addition to, or instead of, these indicators that relate to their needs and the needs of their patients.

Clinical quality registries support health services to monitor variation in care to improve patient outcomes and can support implementation of the Clinical Care Standards. Health service organisations can participate in the clinical quality registry for Emergency Laparotomy, the Australian and New Zealand Emergency Laparotomy Audit – Quality Improvement (ANZELA-QI). The indicators in ANZELA-QI capture information relevant to this clinical care standard. Participants can compare their performance on each indicator, with ANZELA-QI publishing trends such as the national average for participating organisations in their reports.

See the Commission's website for more information on [clinical quality registries](#) and quality measures, including [patient-reported outcome measures \(PROMs\)](#) and [patient experience measures](#).

General principles of care

This Clinical Care Standard should be implemented as part of an overall approach to improving safety, quality, and appropriateness of care. Some principles and key actions are described in other Commission standards and guidance and are not reproduced here. These include:

- Effective clinical governance
- [Person-centred care and partnering with consumers](#)
- [Shared decision making and informed consent](#).

For more information, see:

- [NSQHS Standards](#)¹
- [National Safety and Quality Primary and Community Healthcare Standards](#)²
- [User Guide for Reviewing Clinical Variation](#)
- [Clinical Care Standards](#).

Cultural safety and equity

Person-centred care recognises and respects differences in individual needs, beliefs, and culture. The Commission:

- Is committed to supporting healthcare services to provide culturally safe and equitable healthcare to all Australians
- Acknowledges that discrimination and inequity are significant barriers to achieving high-quality health outcomes for some patients from culturally and linguistically diverse communities.

Culturally safe service provision and environments are those where the places, people, policies and practices foster mutual respect, shared decision making, and an understanding of cultural, linguistic and spiritual perspectives and differences. Cultural safety is supported by organisations and individuals that recognise cultural power imbalances and actively address them by:

- Ensuring access to and use of interpreter services or cultural translators when this will assist the patient and aligns with their wishes
- Providing visual or written information in a language that the patient, their family and carers will understand
- Providing cultural competency training for all staff
- Encouraging clinicians to review their own beliefs and attitudes when treating and communicating with patients¹⁰
- Identifying variation in healthcare provision or outcomes for specific patient populations, including those based on ethnicity, and responding accordingly.¹¹



Cultural safety and equity for Aboriginal and Torres Strait Islander peoples

Health outcomes for Aboriginal and Torres Strait Islander peoples can be improved by addressing systemic racism and other root causes that reduce access to care. Historical and current contributing factors include a lack of culturally safe care, culturally appropriate health education and sociocultural determinants such as differences in employment opportunities.

The considerations for improving cultural safety and equity in this Clinical Care Standard focus primarily on overcoming cultural power imbalances and improving outcomes for Aboriginal and Torres Strait Islander people through better access to health care.¹²

Cultural safety and equity recommendations in this document have been developed in consultation with Aboriginal and Torres Strait Islander individuals, clinicians and representative health service organisations. However, it is recognised that cultural safety is determined by the Aboriginal and Torres Strait Islander individuals, families and communities experiencing the care.¹³

Recommendations

When implementing this Clinical Care Standard, cultural safety can be improved through embedding an organisational approach such as described in the recommendations below. Specific considerations for cultural safety for people undergoing emergency laparotomy are provided throughout this Standard.

When providing care for Aboriginal and Torres Strait Islander people, particular consideration should be given to the following recommendations.

Building culturally safe systems

- Ensure systems and processes support people to self-report their Aboriginal and Torres Strait Islander status and to record self-identification.
- Ensure all staff engage regularly in cultural safety training.
- Implement the six actions for Aboriginal and Torres Strait Islander Health from the NSQHS Standards.¹⁰

Flexible and connected service delivery

- Provide flexible service delivery to optimise attendance and help develop trust with Aboriginal and Torres Strait Islander people and communities.
- Establish robust communication channels and referral pathways with primary healthcare providers (including Aboriginal Community Controlled Health Organisations [ACCHOs]).
- Where possible, provide outreach services close to home, on Country or in collaboration with ACCHOs or other community healthcare providers.

Communication and person-centred care

- Take a collaborative approach to ensure that interventions are suitably tailored to the individual's personal needs and preferences for care.
- Encourage the inclusion of support people, family and kin or the person's trusted healthcare provider (such as their ACCHO) in all aspects of care, including decision making and planning treatment and management.
- Engage culturally appropriate interpreter services and cultural translators when this will assist the patient.
- Involve Aboriginal and Torres Strait Islander Health Workers or Aboriginal and Torres Strait Islander Health Practitioners as part of a patient's multidisciplinary team and involve Aboriginal and Torres Strait Islander Liaison Officers in hospital settings.
- Use culturally and linguistically appropriate materials to aid in communication and discussion, accounting for varying levels of health literacy.

Related resources

- [*NSQHS Standards User Guide for Aboriginal and Torres Strait Islander Health*](#) – a guide to help improve the quality of care and health outcomes for Aboriginal and Torres Strait Islander people based on the National Safety and Quality Health Service Standards¹⁰
- [*National Agreement on Closing the Gap*](#) – an agreement built around [*four priority reforms*](#) for transforming the way governments work with, and for, Aboriginal and Torres Strait Islander peoples to improve outcomes
- [*Cultural respect framework 2016–2026 for Aboriginal and Torres Strait Islander health*](#) – a framework that commits the Australian Government and all states and territories to embed cultural respect principles into their health systems¹²
- [*Clinical Yarning*](#) – a patient-centred framework to improve communication in Aboriginal health care¹⁴
- [*Communicating positively: a guide to appropriate Aboriginal terminology*](#) – a guide developed by NSW Health to use when working with Aboriginal people and communities, and when developing policy and programs¹⁵
- [*Plain English Health Dictionary*](#) – a resource developed by the Northern Territory Government as a resource for Aboriginal Interpreter Services.¹⁶

Environmental sustainability and climate resilience in health care

Health is a fundamental human right that is undermined by climate change.¹⁷ However, healthcare activity generates carbon emissions which contribute to climate change. It is estimated that the health system is responsible, either directly or indirectly, for 5% of Australia's greenhouse gas emissions.¹⁸ Clinical care contributes more than half of these emissions.¹⁸

The Commission seeks to support clinicians and healthcare services to deliver environmentally sustainable health care that improves patient health outcomes, finds ways to reduce carbon emissions and manages resources effectively. Involving patients and consumers, including Aboriginal and Torres Strait Islander peoples, is an important part of this process.

Actions to improve the quality of care often have a related benefit of improving sustainability and reducing carbon emissions. Sustainable healthcare practices are important for protecting and promoting the health and wellbeing of all Australians, while reducing the environmental impact of the health system.¹⁷

The Commission, in partnership with the interim Australian Centre for Disease Control and Australian medical colleges, has released a [Joint Statement](#) to signify the shared commitment to work together to achieve sustainable high-quality health care.¹⁸ The statement highlights the need to develop low-emission, climate-resilient and culturally safe models of care that deliver on the three principles of sustainable health care:

- Investing in prevention, to improve health while reducing healthcare demand and associated emissions
- Minimising potentially harmful and wasteful care, which accounts for around 30% of the emissions footprint of clinical care¹⁹
- Minimising emissions associated with the delivery of high-value care.¹⁷

The statement aligns with the principles and objectives of Australia's [National Health and Climate Strategy](#).¹⁷

Emergency Laparotomy

Each year, more than 15,000 Australians undergo an emergency laparotomy, or emergency abdominal surgery on the gastrointestinal tract, for time-critical conditions such as bowel obstruction, perforation, internal bleeding and ischaemia.²⁰

Emergency laparotomy is a high-risk procedure with mortality estimates in Australia ranging from 6.2% to more than 20% in older adults and those with comorbidities.^{21, 22} Extended hospital stays and postoperative complications such as infection and pneumonia are common.^{21, 23} Many patients will experience poor functional outcomes and loss of independence following hospitalisation.^{4, 24-26} The financial burden of emergency laparotomy is also significant at an estimated cost to the Australian health system of around \$400 million per year.²⁰

More than half of patients who have an emergency laparotomy are aged over 65.²¹ Many have a high degree of frailty and multiple comorbidities, and more than 20% have sepsis on presentation.²⁶ These patient groups are at particularly high risk of poor outcomes following an emergency laparotomy.

Aboriginal Australians are twice as likely to be admitted for emergency surgery as non-Indigenous Australians²⁷ and are more likely to experience chronic health conditions that can complicate recovery – often at a younger age.²⁸

In rural and remote Australia, for patients with time-critical intra-abdominal conditions, access to appropriate investigations and treatment is limited. When required, transfer is clinically and logistically complex, often involving long distances and delaying time to surgery.

International and Australian evidence shows that a structured approach to the care of patients undergoing emergency laparotomy can substantially improve outcomes. The UK's National Emergency Laparotomy Audit (NELA) has measured care against key standards since 2012 and is credited with substantial improvements in outcomes including a reduction in mortality from 11.8% to 9.3% in its first five years.⁴

Timely recognition and treatment of sepsis, preoperative assessment of mortality risk and frailty, planned postoperative critical care for high-risk patients, and geriatrician involvement in the care of older patients are amongst the key components of care that have driven improved outcomes for patients undergoing emergency laparotomy.^{7, 8, 21} Shared decision-making and meaningful, patient-centred discussions about goals of care and limitations on medical treatment are also key elements of high-quality care for patients undergoing emergency laparotomy. These are especially important for high-risk patients for whom surgery may offer limited benefit in terms of survival or quality of life.

1 Since 2018, the Australian and New Zealand Emergency Laparotomy Audit – Quality
2 Improvement (ANZELA-QI) has been providing feedback to participating Australian hospitals
3 on their performance against key indicators, similar to those used by NELA. Australian data
4 from ANZELA-QI have demonstrated considerable inter-hospital variation and highlighted the
5 potential for quality improvement approaches to drive improved care processes and
6 outcomes. Notable findings include the following:²⁹

- 7 • Although 76% of patients undergoing emergency laparotomy were assigned a surgical
8 urgency of 18 hours or less, just 51% of these patients arrived in theatre within the
9 appropriate timeframe.²¹
- 10 • Just 17% of older patients were assessed postoperatively by a geriatric medicine
11 specialist or team, despite evidence showing that such reviews are associated with lower
12 mortality.^{21, 30}
- 13 • Around 65% of highest-risk patients were admitted to an intensive care or high
14 dependency unit postoperatively, even though planned postoperative admission to critical
15 care is known to support earlier recognition and management of postoperative
16 complications.^{21, 23}

17 There is a clear opportunity for timely, appropriate and standardised processes and pathways
18 of care to drive improved outcomes – including survival and post-surgery quality of life – for
19 patients undergoing emergency laparotomy in Australia.

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Quality statements

Quality statement 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 and blood lactate is measured.

When sepsis is suspected, care is initiated urgently in accordance with the local sepsis pathway and the *Sepsis Clinical Care Standard*.

Purpose

Ensure the patient with potentially time-critical intra-abdominal pathology, including sepsis, is identified early and their further assessment and treatment is expedited appropriately.

What the quality statement means

For patients

A laparotomy is a major operation where a long incision (cut) is made in the abdomen (tummy) to carry out surgery. An emergency laparotomy is done for urgent and possibly life-threatening conditions such as:

- A hole in the bowel (perforation)
- A blockage of the bowel (obstruction)
- Significant internal bleeding
- Reduced blood flow to the intestines (a serious condition called ischaemic bowel)
- An infection in the abdomen
- Sepsis (a life-threatening condition that can occur in response to infection – see the links below for more information about sepsis).

If your symptoms mean you could have one of these conditions, you might need urgent surgery. You will need to be examined and have some tests as quickly as possible. Based on your test results, you may need to see a surgeon immediately to help decide on the most suitable treatment for you.

If you are showing signs of sepsis, your treatment for this should be started immediately. This usually involves fluids and medicines such as antibiotics being given directly into your veins through a drip. It may also include surgery to control the infection. Timely treatment is essential to prevent complications from sepsis.

For clinicians

While acute abdominal presentations are common and often due to non-critical and self-limiting conditions, delayed recognition and treatment of the patient with time-critical intra-abdominal conditions – such as perforation, ischaemia, bleeding, bowel obstruction, infection and/or sepsis – are associated with increased mortality and morbidity.^{7, 31}

For the patient with symptoms suggestive of a time-critical intra-abdominal condition:

- Prioritise rapid assessment and escalate in line with local protocols.⁴ Clinical assessment and escalation will frequently occur simultaneously with resuscitation, diagnostic investigations and optimisation for surgery.^{6, 32}
- Consider sepsis when symptoms could indicate an intra-abdominal infection. When sepsis is suspected, urgently initiate care in line with the local sepsis pathway and the *Sepsis Clinical Care Standard*. This includes obtaining blood cultures and baseline blood tests including lactate, timely administration of appropriate antimicrobials, and prioritising surgical source control.^{4, 33}
- Seek surgical review without delay if clinical assessment or investigations suggest a possible need for urgent surgery. Ensure that blood lactate has been measured in critically unwell patients referred for surgical review.
- Do not delay surgical review due to pending lactate or other investigation results.
- If time-critical investigations and/or treatment require transfer to another facility, rapidly escalate to senior clinicians. See **Box 1** for considerations for patients requiring transfer.

Maintain a high index of suspicion for patients at risk of delayed diagnosis of time-critical intra-abdominal pathology and/or sepsis. This includes older patients, patients with a high degree of frailty or significant comorbidities, those with cognitive impairment, delirium or communication difficulties, and those who are immunocompromised.^{31 33}

For healthcare services

Implement protocols, procedures and pathways for patients presenting to an emergency care setting, or deteriorating on the ward, that support:

- Rapid assessment and escalation of patients with symptoms suggestive of time-critical intra-abdominal conditions
- Referral for surgical review and blood lactate measurement of critically unwell patients whose assessment and/or investigations indicate they may need an emergency laparotomy.

Ensure that a locally approved sepsis pathway has been implemented, and includes the essential elements described in the *Sepsis Clinical Care Standard* such as:

- Triggers and timeframes for escalation of care
- Time-sensitive interventions such as fluid resuscitation and administration of appropriate antimicrobials
- Urgent source control with surgical referral when required
- Involvement of clinicians with experience in recognising and managing sepsis.

1 Provide education and training on the time-critical nature of serious intra-abdominal
2 pathologies and the importance of early sepsis recognition and management, including source
3 control.

4 In services without access to investigations or suitable treatment for serious intra-abdominal
5 conditions, ensure that protocols, procedures and pathways support urgent escalation, shared
6 decision-making and appropriate transfer. See **Box 1** for further considerations regarding
7 transfer.

8 Measure, review and address potential sources of delay for the emergency surgery patient to
9 support continuous quality improvement.



11 Cultural safety and equity

12 Explain your concerns about the patient's condition, and the rationale for any tests and
13 interventions in a culturally safe way to the patient and their family, support people or
14 substitute decision-makers. Allow time for explanation and questions.

15 Consider the cultural safety recommendations on page 13, including those related to
16 communication and person-centred care including:

- 17 • Ensuring a collaborative approach tailored to the individual's personal needs and
18 preferences for care
- 19 • Involving support people, family and kin in decision making, and when planning treatment
20 and management
- 21 • Using culturally and linguistically appropriate materials to support communication,
22 accounting for varying levels of health literacy
- 23 • Engaging interpreters and cultural translators when this will assist the patient
- 24 • Involving Aboriginal and/or Torres Strait Islander health workers or health practitioners, or
25 liaison officers as appropriate and when this is what the patient wants.

26 When a patient may need to be transferred away from home or Country to access treatment:

- 27 • Ensure the patient's values and preferences, are considered during shared decision
28 making about transfer; family, culture and connection to Country may be important
29 considerations for patients that should be acknowledged.
- 30 • Arrange for a patient being transferred to have access to adequate support and advocacy
31 whilst in hospital away from home; involve Aboriginal and/or Torres Strait Islander health
32 workers or practitioners, or liaison officers, if this is what the patient wants.^{33, 34}

33 Related resources

- 34 • [What is sepsis?](#) (Sepsis Australia)
- 35 • [Sepsis Clinical Care Standard](#) (Australian Commission on Safety and Quality in Health
36 Care, 2022)
- 37 • [Fact sheet: Lactate in the deteriorating patient and sepsis](#) (Australian Commission on
38 Safety and Quality in Health Care, 2022)

Indicators for local monitoring

Indicator 1a: Proportion of patients who had an emergency laparotomy whose blood lactate was available at first surgical review.

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CONSULTATION DRAFT

1 **Box 1: Transfers and the potential emergency laparotomy patient**

For patients with acute abdominal symptoms who may require emergency laparotomy, transfers are a major source of risk, often delaying time-critical care and surgery. A transfer may be required to access:

- CT scan or other diagnostic investigations
- Surgery, including specialist surgical expertise appropriate to the patient's risk
- Critical care including planned postoperative admission for the high-risk patient.

For clinicians considering transfer of a patient

To support appropriate decision-making about transfers and patient-centred care:

- Escalate decision-making about transfers to senior clinicians within the originating service
- Assess the patient's risk (based on their mortality risk score, if possible, in addition to comorbidities, frailty and clinical judgement) to help inform decision-making about transfer and pathways such as the need for postoperative admission to critical care (see **Quality Statement 3**)
- Seek advice, and support for clinical decision-making as needed, from senior clinicians in the relevant tertiary or other receiving hospital
- Discuss the risks and benefits of transfer with the patient and their support people or substitute decision-makers to enable informed, shared decision-making. This should include, as appropriate, the risk of experiencing serious complications, loss of independence or dying away from home. Recognise that transfer may be inconsistent with some patients' goals, preferences or cultural needs and discuss alternative procedures or medical management options as appropriate, which may include palliative and supportive care (see **Quality Statement 4**)
- When considering the appropriate transfer destination, aim to send the patient to a facility where they can access all diagnostic and treatment needs, without the need for further transfer.

When a decision has been made to transfer a patient

- Ensure there is discussion between senior clinicians within the referring and receiving facilities, and the relevant retrieval service as appropriate, prior to transfer; these discussions should be consultant-to-consultant in all settings with access to a consultant. The referring and receiving facilities should document relevant discussions, decisions and care plans in the patient's notes.
- Ensure that goals of care and limitations on medical treatment have been discussed and are documented in the patient's transfer notes.

Rural and remote health services

While most transfers for emergency laparotomy occur between metropolitan hospitals, transfers from rural and remote facilities are common, and further complicated by issues such as distance, time, transportation, loss of continuity of care and separation from family and community support.^{35, 36}

The networks and systems required to facilitate timely, appropriate care for patients in these settings are challenging, complex, diverse, and resource-intensive. Local processes and pathways – including strong connections with tertiary hospitals and retrieval services – are essential to support timely, patient-centred decision-making, coordinated transfer for patients who may need an emergency laparotomy, and appropriate interventions before and during transfer.

Related resources

[Guideline for transport of critically ill patients 2025](#) (ACEM, ANZCA, CICM)

Quality statement 2

Diagnostic imaging

A patient with symptoms suggestive of a time-critical intra-abdominal condition has a CT scan as soon as possible, with intravenous contrast unless contraindicated. Critical findings are communicated verbally by the radiologist to the referring or responsible clinician, within one hour of the scan being performed. Acquiring a CT scan should not delay very urgent surgery.

Purpose

Ensure appropriate, timely diagnostic imaging is available to support diagnosis and decision-making.

What the quality statement means

For patients

If there is a chance you have a condition that might need an emergency laparotomy, you will have a computed tomography (CT) scan as soon as possible.

A CT scan uses a combination of x-rays and computer technology to make detailed pictures of the inside of your body. The pictures from the CT scan help your doctors see what is happening in your abdomen so that they can plan the right treatment.

During your scan, you might be given a dye called contrast material that helps show more detail in your CT scan pictures. The dye will be given directly into your vein through a drip.

A radiologist will review your CT scan and then quickly provide the results to your healthcare team.

If you need extremely urgent surgery, there may not be time for a CT scan.

If CT scanning is not available where you are, you will usually be transferred to another service for your scan. Your healthcare team will talk to you and your support people about what this involves.

For clinicians

Computed tomography (CT) with intravenous (IV) contrast is the optimal imaging to assist with accurate diagnosis and determine appropriate management for the patient who may require emergency laparotomy.^{4, 37}

For referring clinicians

Refer the patient with acute abdominal symptoms suggestive of a time-critical intra-abdominal condition as soon as possible for CT, with IV contrast unless contraindicated. Be aware of current guidance for the use of contrast media in renal impairment: do not delay emergency imaging requiring IV contrast for the purpose of obtaining renal function testing results.³⁷⁻³⁹ Seek radiology advice if there is any uncertainty regarding the preferred imaging; and for any patient who is pregnant.

Communicate the urgency of the referral, and that the patient may need an emergency laparotomy, to ensure it is prioritised.

Ensure that accessing CT or awaiting results does not delay very urgent surgery.

If the patient needs to be transferred to another facility for CT, immediately involve a senior clinician at the referring site. See **Box 1** for considerations regarding transfer.

For radiologists

Advise the referring clinician on appropriate imaging for the patient as needed.

Expedite review of images and communicate critical findings within an hour of the scan for patients with suspected time-critical pathology. Communicate findings verbally to the referring and/or responsible clinician; this must be directly to a clinician who can take appropriate clinical action. Document the discussion in the patient's medical imaging report, including who the results were discussed with. Ideally there will be discussion between the reporting radiologist and the responsible surgeon preoperatively. Ensure ongoing availability to discuss findings with the surgeon as needed.^{40, 41}

Observe local protocols regarding the required training for radiologists reporting on emergency abdominal CTs. Where emergency laparotomy may be indicated, review and reporting by a consultant radiologist before surgery is preferred. In some services, particularly overnight, this may be provided by a senior radiology trainee under appropriate supervision. A suitably experienced radiologist should always be available to provide advice and a second opinion as needed for less experienced radiologists.

For healthcare services

Implement policies, procedures and pathways that ensure:

- Timely and appropriate CT referral and imaging
- Access to radiology advice on the appropriate imaging approach, when required
- Appropriate communication of critical imaging results including timely, verbal communication of critical findings to the referring and/or responsible clinician, and discussion with the consultant surgeon as needed
- Documentation of discussions about results, including who the results were discussed with
- Timely availability of images to the referring and/or responsible clinician and continued access to radiology advice to discuss these when required.
- Clarity regarding local scope of practice and roles and responsibilities for reporting on emergency abdominal CT.

In services where radiology reporting is outsourced, ensure that service agreements support the local policies and procedures including timely provision of images and reports, and the availability of appropriately experienced radiologists to advise on test selection and discuss imaging results for urgent surgical cases.

1 Monitor, review and address potential sources of delay related to imaging for patients
2 undergoing emergency laparotomy to support continuous quality improvement.

3 In hospitals where CT is not available onsite, ensure that protocols, procedures and pathways
4 support timely escalation, shared decision-making and patient transfer. See [Box 1](#) for
5 considerations regarding transfer.



7 Cultural safety and equity

8 Explain how CT scanning will benefit the patient and what it involves. Involve the patient's
9 family, support people or substitute decision-makers in discussions. Listen and identify
10 concerns in a culturally safe way.

11 Consider the cultural safety recommendations on page 13, including those related to
12 communication and person-centred care.

Indicators for local monitoring

Indicator 2a: Proportion of patients who had an emergency laparotomy whose CT scan results were communicated verbally by a radiologist, within one hour of the scan being performed.

Indicator 2b: Time (Median and Mean hours) from referral to performing a CT scan for patients who had an emergency laparotomy.

Indicator 2c: Time (Median and Mean hours) from hospital arrival to performing a CT scan for patients who had an emergency laparotomy

Quality statement 3

Assessment of risk

A patient being considered for an emergency laparotomy has their risk assessed and documented before surgery, using a 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 as part of risk assessment.

This information about risk is used to help inform appropriate care pathways, interdisciplinary communication and discussions with patients and those supporting them.

Purpose

Ensure that patients' perioperative risk is objectively assessed to help inform appropriate pathways, facilitate interdisciplinary communication and support shared decision making.

What the quality statement means

For patients

An emergency laparotomy is major surgery to treat very serious health conditions, and so there are risks involved. Before having surgery, it is important for you, your family and support people, and the surgical team to understand the risks.

For some people the risks are greater because of the seriousness of their condition, their age and other health needs they may have.

If your doctors think you might need an emergency laparotomy, they will use a scoring system to help estimate how risky the surgery might be for you. Based on information about your condition and overall health, the tool will generate a risk score that can help your healthcare team get a snapshot of your overall health and fitness for surgery to help plan your care with you.

If you are older, your healthcare team will also:

- Assess your level of frailty which is about how strong or weak your body is. It is important to know about frailty because it can affect your risk of complications and how well you recover from surgery. Depending on how frail you are, you may need additional support and advice from your healthcare team.
- Check whether you have issues with your memory or thinking that mean you might be at risk of delirium.

All of this information will be used to help guide the care that is offered to you. It will also help you and your healthcare team to have discussions about your treatment and what is most important to you. It can guide the care you receive before, during and after surgery. For some people this may mean deciding not to have surgery.

For clinicians

Preoperative risk assessment for the patient who may require emergency laparotomy supports informed decision-making about treatment and enables care to be planned according to the patient's risk.

Assess and document the patient's mortality risk using a validated preoperative risk prediction tool that has been agreed for local use. Commonly used tools include the:

- National Emergency Laparotomy Audit (NELA) risk calculator - which has been validated for use in Australia⁴²⁻⁴⁴
- American College of Surgeons' National Surgical Quality Improvement Score (ACS-NSQIP) calculator
- Surgical Outcome Risk Tool (SORT)
- Portsmouth Physiological and Operative Severity Score for the enUmeration of Mortality (P-POSSUM).

Frailty is independently associated with higher morbidity and mortality following emergency laparotomy and may not be reflected in all mortality risk score calculators. Patients who have a high degree of frailty should be considered high risk independent of their calculated mortality risk.^{4, 8, 45} Perioperative delirium is associated with increased mortality, readmissions, perioperative complications and long-term cognitive decline. The presence, or risk, of delirium will affect the patient's management plan. Refer to the [Delirium Clinical Care Standard](#) for more information.^{4, 46-48}

Before surgery, in patients aged 65 years or older:

- Assess and document frailty using a locally agreed, validated frailty assessment tool such as the Clinical Frailty Scale (CFS)
- Identify and document cognitive impairment and delirium using a brief, validated tool such as the 4AT.

Consider assessment of cognitive impairment and delirium on an individual basis for patients younger than 65 years including Aboriginal and Torres Strait Islander patients aged 45 years and above, and patients with complex healthcare needs.

Use risk scores – in combination with clinical judgement – to support interdisciplinary communication, help determine care pathways such as postoperative ICU admission, and inform important discussions with patients and their support people about treatment decisions and consent for surgery.^{4, 7} While risk scores can help guide discussions, they should be presented as an estimate and communication individualised to the patient, noting that mortality risk models may over- or under-estimate risk at the individual level.^{4, 42}

For healthcare services

Implement policies, protocols and procedures to ensure that for all patients being considered for emergency laparotomy there is:

- Preoperative assessment and documentation of risk using a mortality risk prediction tool in addition to clinical judgement
- Preoperative assessment and documentation of frailty, cognitive impairment and delirium:
 - For all patients aged 65 years and older
 - On an individual basis for younger patients including for Aboriginal and Torres Strait Islander patients aged 45 years and older, and patients with complex healthcare needs

- Consistent use of locally agreed, appropriate tools such as:
 - NELA mortality risk calculator which was developed specifically to predict outcomes for patients undergoing emergency laparotomy and which has been validated for use in Australia
 - Clinical Frailty Scale (CFS) for patients aged 65 years and older, commonly used in emergency medicine due to its brevity and ease
 - The 4AT for the rapid initial detection of cognitive impairment and delirium.
- A shared understanding of responsibilities for conducting and documenting these assessments.

Provide clinicians with appropriate education and training on the use of the locally selected tools.

Ensure that consideration of risk is incorporated into relevant clinical processes and pathways. For example, risk scores and frailty assessments should help inform shared decision-making discussions about treatment options and transfer as well as decisions about pathways such as postoperative admission to critical care and the involvement of an appropriate geriatrician or general physician in the patient's care.



Cultural safety and equity

Consider the cultural safety recommendations relating to communication and person-centred care when discussing risk with the patient – see page 13. Provide information in a way that the patient, and their support people, family and kin understand and is culturally safe. Allow time for explanation and questions. Use plain language and visual aids where appropriate, and involve Aboriginal and/or Torres Strait Islander health workers or health practitioners, or liaison officers to the extent that the patient wishes

Use screening and assessment tools that are culturally appropriate. The 4AT screening tool for delirium has been translated into [21 languages](#). The [Kimberley Indigenous Cognitive Assessment](#) (KICA) has been developed specifically for Indigenous Australians and includes a remote and urban version.

Related resources

- [Frailty and surgery information sheet](#), British Geriatrics Society and the Centre for Perioperative care
- [Delirium patient information sheet](#), NSW Health Agency for Clinical Innovation

Indicators for local monitoring

Indicator 3a: Proportion of patients who had an emergency laparotomy whose risk was assessed using a locally approved mortality risk prediction tool and documented prior to surgery.

Indicator 3b: Proportion of patients who had an emergency laparotomy and were aged 65 years or older, whose frailty was assessed using a validated tool and documented prior to surgery.

Indicator 3c: Proportion of patients who had an emergency laparotomy and were aged 65 years or older, who were screened for cognitive impairment using a validated tool and the results were documented prior to surgery.

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CONSULTATION DRAFT

Quality statement 4

Shared decision making and goals of care

When an emergency laparotomy is being considered, shared decision making occurs with the patient about their treatment plan, and with their family, support people or substitute decision-makers as appropriate. The patient's goals of care are discussed and documented prior to surgery, and throughout the perioperative period. When surgery may be non-beneficial, senior doctors are involved in shared decision making discussions which explore the benefits, risks and likely outcomes of both surgical and non-surgical treatment.

Purpose

Ensure patients, their families, support people and substitute decision-makers are supported to make appropriate and informed decisions about their care, consistent with their values, goals and preferences.

What the quality statement means

For patients

It is important that you are involved in decisions about your care. If emergency laparotomy is being considered as a treatment option, your doctors will talk with you and your family or support people about your condition, the benefits and risks of surgery and any alternative treatment options so that you can decide on the care that is right for you.

Your doctors will ask about your goals, values and preferences. They will want to understand what is important to you so that they can offer treatment that aligns with your wishes. These are called goals of care discussions, and they will be documented in your healthcare record. Your goals of care may change while you are in hospital and your doctors and other members of your healthcare team will continue to talk to you and your family and/or support people about what is important to you.

If you are too unwell to make decisions yourself, your doctor will involve your substitute decision-maker/s in discussions about your care. A substitute decision-maker is usually one or more trusted family members or friends who you have chosen to make decisions on your behalf if you are too unwell to decide for yourself. You may have legally appointed someone to take on this role but this is not always the case. If you have an advance care plan, this can also help guide your doctors to ensure decisions and your future care is in line with your values and preferences.

If there is a chance that an emergency laparotomy may not be the most suitable treatment option for you, a senior doctor will talk to you and your family, support people or substitute decision-makers about other options, which might include choosing not to have surgery at all. This conversation is especially important when you don't want to have an operation, or surgery may not lead to the outcome you hope for. For example, your other health issues may mean that the surgery may not extend your life or could mean you lose your independence which you may consider an unacceptable outcome. Together, you, your support people and your healthcare team can make decisions that reflect your goals and what matters most to you.

For clinicians

Shared decision making is an essential component of patient-centred perioperative care and patients should be involved in decision-making about their care to the extent that they are able. When a patient is unable to participate in decisions about their care, identify and involve family, support people and substitute decision-makers in accordance with the patient's expressed wishes, and state or territory legislative frameworks.⁴⁹

Ensure there is sensitive, clear and direct communication with the patient, their family or substitute decision-makers about their clinical situation, their treatment options, and the risks, benefits and likely outcomes of these.⁴⁹ Risk assessment scores can help inform these discussions but should be adapted and individualised to assist patients, their family or substitute decision-makers to understand. Explore the patient's values, goals and preferences. Use structured and standardised approaches as appropriate to support meaningful, realistic discussions and decisions about treatment alternatives, such as:

- The BRAN methodology ('benefits, risks, alternatives, do nothing')⁴
- Best case / worst case scenarios framework.⁵⁰

Documenting goals of care supports a shared understanding between patients, their support people, and the healthcare team during the hospital admission. Goals of care assist with setting clinical expectations and articulating the values and preferred outcomes of the patient. Ensure that, in particular for patients aged 65 and above, and other patients with a high degree of complexity, frailty and/or comorbidity:

- Goals of care and limitations on medical treatment are discussed, documented and re-evaluated throughout the perioperative period
- Local goals of care forms, or similar clinical directive forms, are utilised and readily available on the patient's healthcare record, noting that they do not replace the need for meaningful, timely discussion.⁵¹

When surgery may be non-beneficial or cannot realistically achieve the patient's preferred outcomes, ensure that senior doctors are involved in shared decision-making discussions. These discussions should consider whether to proceed with an emergency laparotomy, and explore alternative procedures or medical management options, which may include palliative and supportive care. Tailor discussions based on the patient's decision:

- If the patient is proceeding with surgery, discuss the range of possible outcomes. Ensure that the outcomes acceptable to the patient are understood and reflected in their documented goals of care and limitations on medical treatment^{4, 6, 52-54}
- If the patient is proceeding with medical management, ensure that likely outcomes are explained, including whether surgical management will be re-evaluated
- Consider referrals to appropriate services to co-ordinate ongoing treatment and support. This may include referral to palliative care for patients approaching the end of life.

For healthcare services

Implement policies, protocols and procedures that support:

- Shared decision-making with patients and their families and substitute decision-makers
- Discussion and consistent documentation of goals of care and limitations on medical treatment before surgery, especially for patients aged 65 years and older, and re-evaluation of these throughout the perioperative period as required
- The use of a locally approved goals of care form and ready access to the completed form on patients' healthcare records.

Provide access to structured shared decision-making tools such as BRAN (benefits, risks, alternatives, do nothing) and information resources to support communication with patients and their substitute decision-makers about their treatment.⁵⁵

Provide access to education and training for clinicians on goals of care discussions and shared decision-making strategies and skills including communication skills to support sensitive, direct and clear discussions about risk and prognostic issues.

Ensure clinicians' roles and responsibilities in relation to shared decision-making and goals of care are defined and communicated. This should include the requirement for senior clinicians to be involved in shared decision-making for patients where surgery may be non-beneficial.



Cultural safety and equity

Consider the cultural safety recommendations relating to communication and person-centred care when discussing risk with the patient – see page 13. Provide information in a way that the patient and family understand and is culturally safe. Allow time for explanation and questions. Use plain language and visual aids where appropriate.

Recognise and accommodate the important role that family, community and connection to Country can play throughout a patient's surgical journey.^{34, 56} Involve family in decision-making and informed consent discussions to the extent that the patient wishes. Involve interpreters and Aboriginal and/or Torres Strait Islander health workers, health practitioners or liaison officers when this will benefit the patient.

Consider that cultural factors may influence who is involved in decision-making. Aboriginal and Torres Strait Islander patients may require or prefer the involvement of multiple decision-makers. The term 'family' may have varying meanings in different cultures; for example, family may include people who are not first- or second-degree relatives but culturally have a close tie to the person or are important in their culture and link to Country. These considerations may also influence who appropriate substitute decision-makers are if the person does not have capacity.

Recognise that patients may have diverse and important religious beliefs or cultural practices related to surgery, ageing, traditional medicines as well as end-of-life care and palliative care. Patients approaching end of life may prefer to die on Country. Always ask patients about their needs and preferences, and do not make assumptions about the care they should receive.^{34, 49, 56}

1 **Related resources**

2 **For patients**

- 3 • [What is advance care planning?](#) – Information for consumers about advance care plans
4 and substitute decision makers (Advance Care Planning Australia, 2025)
5 • [Australian charter of healthcare rights](#) (Australian Commission on Safety and Quality in
6 Health Care, 2024)

7 **For clinicians**

- 8 • [Guideline for the care of patients at the end-of-life who are considered for surgery or
9 interventional procedures](#) (ANZCA, 2022)
10 • [A framework for perioperative care in Australia and New Zealand](#) (ANZCA, 2021)
11 • [Identifying goals of care: tips for clinicians](#) (ACSQHC, 2019)
12

Indicators for local monitoring

Indicator 4a: Proportion of patients who had an emergency laparotomy and were aged 65 years or older, whose goals of care were documented in their healthcare record prior to surgery.

Quality statement 5

Timely access to surgery

A patient having an emergency laparotomy commences surgery within the timeframe specified by their assigned surgical urgency category.

Purpose

Ensure patients undergoing emergency laparotomy receive timely surgery to optimise outcomes.

What the quality statement means

For patients

Once it is decided that you will have an emergency laparotomy, your healthcare team will aim to get you to surgery within a safe and appropriate timeframe. Your doctor will give you a surgical urgency category that helps the hospital team understand how quickly you need surgery so that your operation can be prioritised appropriately.

Your doctor will communicate with the rest of your healthcare team about the urgency of your surgery to make sure everything is in place for your operation and recovery.

If you have sepsis, it is important to act fast. You will usually need surgery very quickly – often within 3 to 6 hours – depending on how serious your condition is.

For clinicians

Delay to surgical intervention for patients requiring emergency laparotomy is associated with increased mortality and morbidity, particularly for patients with sepsis. Triage, investigations and diagnosis, optimisation for surgery and inter-facility transfer will all affect the timeliness of surgery.

To help minimise unwarranted delay between the decision to operate and the commencement of surgery:

- Assign a surgical urgency category in accordance with the local framework, to support the appropriate differentiation of urgency and prioritisation of theatre access
- Communicate with the perioperative team about the urgency of surgery to maximise the time available to arrange resourcing and prepare for surgery, and to arrange critical care postoperatively when needed
- Document the date and time of the decision to operate in the patient's healthcare record to enable accurate calculation of timely theatre access
- Utilise local escalation protocols if issues arise such as conflicts regarding surgical priorities, theatre access or decision-making about transfers.^{57,58}

Further considerations for the patient who needs to be transferred for surgery are outlined in **Box 1**.

For patients with an intra-abdominal source of sepsis, mortality rises with every hour of delay.^{59, 60} Recognise and respond to the urgent need for source control for patients with a confirmed or suspected intra-abdominal source of sepsis and prioritise their surgery accordingly. Guidelines recommend that patients:

- With septic shock receive source control as soon as possible and within three hours
- With sepsis and without septic shock, receive surgery within six hours.^{4, 7}

For healthcare services

In hospitals with the clinical capability to perform emergency laparotomy

- Ensure that theatre access and resourcing supports timely surgery for patients requiring an emergency laparotomy in accordance with their clinical need and assigned surgical urgency category. Systems should support the prioritisation of critically ill patients for emergency surgery before patients receiving non-critical or elective surgery.
- Ensure that sepsis pathways facilitate the urgent surgical referral of patients who may require surgical source control of intra-abdominal sepsis
- Ensure that local escalation processes are in place to support decision-making and accountability with respect to managing demand and conflicting surgical priorities
- Ensure that local pathways and processes are in place to support timely, patient-centred decision-making and transfer when required.
- Ensure systems and procedures facilitate capture of the date and time of the decision to operate in the patient's healthcare record
- Monitor the demand and timeliness of surgery for patients requiring an emergency laparotomy to inform continuous quality improvement and facilitate planning and appropriate resource allocation. Identify and address sources of delay at all stages of the patient journey.

Indicators for local monitoring

Indicator 5a: Proportion of patients who had an emergency laparotomy within the timeframe specified by their assigned surgical urgency category.*

**According to the local framework for categorising/ prioritising emergency surgeries*

Quality statement 6

Presence of consultant doctors during surgery

A high-risk emergency laparotomy patient (including a mortality risk score $\geq 5\%$) has a consultant surgeon and a consultant anaesthetist present in theatre during their surgery.

Purpose

Ensure that high-risk patients receive care from clinicians whose expertise matches their needs.

What the quality statement means

For patients

If you have an increased risk of complications from your emergency laparotomy, you will have a more experienced surgeon and anaesthetist directly involved in your operation. These more experienced doctors are often called consultants. The experience and expertise of these doctors will help them to manage any complications that may occur during surgery and to make the best decisions about your treatment and recovery.

If you are in an area where these higher-level specialists may not be available, your doctor will consider transferring you to a hospital with the right surgical team. If a transfer is not safe or practical because of your medical condition, your care will be guided by what is best for you, including your condition, how far you would need to travel, and what matters most to you.

For clinicians

For the high-risk emergency laparotomy patient, ensure that a consultant surgeon and consultant anaesthetist perform, or are present in theatre, during the patient's surgery and anaesthesia respectively. See **Box 2** for definitions of consultant surgeon and anaesthetist. If it is considered appropriate for a non-consultant to perform the surgery or provide anaesthesia under supervision, the supervising consultant should be physically present in theatre and free of other commitments.^{7, 57}

The 'high-risk' patient is determined based on their overall risk, including their preoperative mortality risk score (where a risk score $\geq 5\%$ * is considered 'high-risk'), frailty and comorbidities, and clinical judgement. See **Quality Statement 3** for more information on assessment of risk.

* Estimated risk of death within 30 days of emergency laparotomy surgery.

1 In services without a consultant surgeon and/or consultant anaesthetist, arrange for the high-
2 risk patient to be transferred to a facility with a suitably experienced surgical team. In some
3 cases, transfer may not be appropriate, or a decision may be made to delay transfer until after
4 surgery. These exceptions will be identified based on a risk-benefit analysis that considers
5 factors such as the stability of the patient and urgency of their condition, the time involved in
6 the earliest possible transfer, and the patient's goals, values and preferences. The decision to
7 perform surgery for a high-risk patient prior to transfer must involve discussion between the
8 senior clinician responsible for the patient and the consultant of the surgical team likely to
9 receive the patient after surgery. See [Box 1](#) for further considerations in relation to the
10 transfer of patients.

Box 2: Defining 'consultant' for the Emergency Laparotomy Clinical Care Standard

There is some variability across Australia in the use of the terms 'Consultant surgeon' and 'Consultant anaesthetist'. When they are used in this Standard, they should be considered, respectively, to mean the following:

- **Consultant surgeon:** A surgeon who has been granted specialist registration by Ahpra and the Medical Board of Australia, and who has been appointed to a Consultant position or equivalent senior position by a healthcare service, reflective of their experience and seniority.
- **Consultant anaesthetist:** An anaesthetist granted specialist registration by Ahpra and the Medical Board of Australia, who has been appointed to a Consultant position or equivalent senior position by a healthcare service, reflective of their experience and seniority. This may also be a Rural Generalist Anaesthetist who has been appointed to a Consultant Anaesthetist position by their healthcare service, although this is uncommon.

For healthcare services

The absence of consultants in emergency surgical care is associated with increased patient morbidity and mortality, and increased length of stay.⁵⁸

Implement policies, procedures and rostering arrangements to:

- Ensure the presence of a consultant surgeon and consultant anaesthetist in theatre for high-risk patients undergoing emergency laparotomy. Consultant surgeons on the general surgery on-call roster should have adequate experience in gastrointestinal surgery.
- Monitor and review how frequently consultant doctors are present during surgery to facilitate quality improvement as appropriate.

In services where a consultant surgeon or consultant anaesthetist is not available locally, ensure that arrangements are in place to:

- Support escalation, shared decision-making and timely transfer of the high-risk emergency laparotomy patient to a facility with a suitably experienced surgical team
- Enable local clinicians to access virtual advice and support from senior clinicians at an appropriate tertiary centre to assist with decision-making and clinical management. See [Box 1](#) for further information about transfers.

Indicators for local monitoring

Indicator 6a: Proportion of patients who had an emergency laparotomy with a preoperative mortality risk score $\geq 5\%$ where a consultant surgeon was present in theatre during surgery.

Indicator 6b: Proportion of patients who had an emergency laparotomy with a preoperative risk score $\geq 5\%$ where a consultant anaesthetist was present in theatre during surgery.

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CONSULTATION DRAFT

Quality statement 7

Postoperative admission to critical care

A high-risk patient is considered for critical care admission based on mortality risk, frailty, comorbidities and clinical judgement. Patients with a mortality risk score $\geq 10\%$ are routinely admitted to a critical care unit following surgery.

Purpose

Ensure that high-risk patients are appropriately supported and monitored following emergency laparotomy.

What the quality statement means

For patients

If you are at very high risk of serious complications from your surgery, your doctors will organise for you to have extra monitoring after your operation. If you have extra monitoring, it will usually be in an intensive care unit (ICU) or high dependency unit (HDU). ICUs and HDUs have specialised nurses and doctors and medical equipment so you can be continuously monitored and treated quickly if any problems arise.

If there is no ICU or HDU available where you are, your doctors may suggest transferring you to another hospital depending on your condition and what matters most to you.

For clinicians

Proactive admission of high-risk emergency general surgery patients to intensive care is associated with reduced mortality and length of stay.^{5, 6, 61} Following an emergency laparotomy, many patients will benefit from the continuous monitoring and higher staffing ratios available in critical care units (ICU or HDU), to prevent or rapidly manage complications.^{5, 61}

Consider the most appropriate postoperative care location for the patient following emergency laparotomy based on risk, taking into account their preoperative mortality risk score, frailty, comorbidities, and clinical judgement. See **Quality Statement 3** for more information on assessment of risk. Ensure an admission to critical care is in keeping with the patient's goals of care. See **Quality statement 4** for more information about goals of care.

1 Communicate directly with senior critical care clinicians before surgery about the need for
2 direct postoperative admission of the high-risk patient. In consultation with critical care:

- 3 • Arrange admission to a critical care unit for the patient with a preoperative mortality risk
4 score $\geq 10\%$ *
- 5 • Consider and decide whether admission is appropriate on an individual basis for other
6 high-risk patients – such as those with preoperative mortality risk scores between 5 and
7 10%.

8 Patients should not be denied access to critical care on the basis of age or frailty alone.

9 If a patient with a preoperative risk score of 10% or more is not admitted to a critical care unit
10 postoperatively, document the reason in their healthcare record.

11 Ensure appropriate monitoring of patients outside the critical care setting to enable prompt
12 recognition and escalation of deterioration in accordance with local protocols and the *National
13 Safety and Quality Health Service (NSQHS) Standard for Recognising and Responding to
14 Acute Deterioration*.⁶² Where available, an enhanced care environment may be an appropriate
15 location for continuous postoperative monitoring of some high-risk patients when a critical care
16 bed cannot be accessed.⁶³

17 In services without an ICU or HDU onsite, for a high-risk patient who will require postoperative
18 critical care, arrange for pre- or postoperative transfer to an appropriate location.

19 Communicate as early as possible with senior critical care clinicians at the tertiary or other
20 receiving hospital, and with relevant transport and/or retrieval services when required. Ensure
21 decisions about transfer are informed by a risk-benefit assessment that considers the impact
22 of the surgical procedure, the patient's ongoing therapeutic requirements and their goals and
23 preferences. Refer to **Box 1** for further considerations regarding transfer.

24 For healthcare services

25 Implement protocols, procedures and pathways that:

- 26 • Enable planned postoperative admission of high-risk emergency laparotomy patients to
27 critical care based on their preoperative risk score, frailty and comorbidities, and clinical
28 judgement. Protocols should support routine postoperative admission of highest risk
29 patients (such as risk score $\geq 10\%$), and consideration of critical care on an individual basis
30 for other high risk patients.
- 31 • Ensure documentation of the reasons patients at high risk are not admitted to critical care.
- 32 • Facilitate appropriate monitoring of the patient not admitted to critical care following
33 emergency laparotomy to ensure prompt recognition and escalation of deterioration in
34 accordance with the *National Safety and Quality Health Service (NSQHS) Standard for
35 Recognising and Responding to Acute Deterioration*.

36 In services without critical care onsite, ensure that protocols, procedures and pathways
37 facilitate timely shared decision making, and pre- or postoperative transfer of the high-risk
38 emergency laparotomy patient for critical care when this is in the best interests of the patient,
39 and aligned with their goals of care. See **Box 1** for further considerations regarding transfer.

* Estimated risk of death within 30 days of emergency laparotomy surgery.

Indicators for local monitoring

Indicator 7a: Proportion of patients who had an emergency laparotomy with a preoperative mortality risk score $\geq 10\%$ admitted to a critical care unit immediately following surgery.

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CONSULTATION DRAFT

Quality statement 8

Proactive assessment and collaborative management of the older patient

An older patient who has an emergency laparotomy is proactively assessed and collaboratively managed by a geriatrician – or other physician – experienced in the perioperative care of older adults. Physician assessment occurs as early as practicable and no later than 72 hours following presentation to hospital.

Purpose

Ensure that older patients who undergo an emergency laparotomy receive appropriate, timely medical co-management from suitably experienced physicians.

What the quality statement means

For patients

Older adults will benefit from having a doctor on their healthcare team with expertise in the care of older patients having surgery. This may be a geriatrician or general physician. Ideally, you will see this doctor in the first few days that you are in hospital. They can work with you, your family and support people, and your other healthcare providers to address your overall health needs and support your recovery. For example, they can help with:

- Preventing or managing complications such as delirium
- Understanding any challenges you may have related to frailty
- Understanding and working with other healthcare providers to best support nutrition
- Changes to your medicines
- Helping you and your support people to make important decisions about your care
- Coordinating care with the rest of your healthcare team.

For clinicians

Comprehensive Geriatric Assessment (CGA) is a multi-dimensional, interdisciplinary process used to assess an older person's medical, psychosocial and functional capabilities and develop a comprehensive management plan.⁴⁸ Comprehensive geriatric assessment and management is associated with improved outcomes for older emergency general surgery patients, including reduced mortality and length of stay.^{6, 26, 30, 48}

In line with local protocols, arrange for the patient aged 65 years or older undergoing emergency laparotomy to be assessed by an appropriate physician as early as possible

postoperatively – and preoperatively where feasible and of benefit to the patient – with assessment occurring no later than 72 hours following presentation to hospital. Timely assessment by an appropriate physician is also required for a patient undergoing emergency laparotomy following deterioration on the ward, or on step-down from a critical care unit. The appropriate physician will be a geriatrician or general physician with expertise in the perioperative care of older adults; in rural settings this may be a suitably experienced general practitioner or rural generalist.

Aboriginal and Torres Strait Islander people may experience chronic health conditions that can impact their recovery earlier in life; physician input to their care should also be considered on an individual basis from 45 years. Similarly, other younger patients with complex care needs will benefit from physician assessment and co-management.

The involvement of an appropriately skilled geriatrician or general physician in jointly managing the older patient undergoing emergency laparotomy can support:

- Assessment and management of multimorbidity, age-related physiological decline and geriatric syndromes (such as frailty, malnutrition, cognitive impairment and polypharmacy) throughout the perioperative pathway^{45, 48}
- Assessment and management of postoperative complications, hospital-acquired deconditioning, postoperative cognitive disorders and medications
- Shared decision making and values-based discussions about goals of care and limitations on medical treatment including in the postoperative period (see **Quality Statement 4**)
- Coordinated multidisciplinary management (for example by nurses, physiotherapists, occupational therapists and pharmacists)
- Early identification of the most appropriate service to deliver rehabilitation, if indicated
- Goal setting and proactive discharge planning (See **Quality Statement 9**)⁵¹

For healthcare services

Ensure that local systems, pathways and protocols support collaborative involvement of physicians in the assessment and management of older patients undergoing emergency laparotomy – including adult patients aged 65 years and older, and Aboriginal and Torres Strait Islander patients aged 45 years and older on an individual basis.

Local arrangements – tailored to service size and complexity, and the needs of local, older surgical patients – should ensure, at a minimum:

- Assessment of the older patient undergoing emergency laparotomy, as early as practicable and no later than 72 hours following presentation, by a geriatrician – or other physician – with expertise in the perioperative care of older adults (in rural and remote services, this may be a suitably experienced general practitioner or rural generalist)
- Appropriate physician involvement in the assessment and management of:
 - multimorbidity, frailty and geriatric syndromes throughout the perioperative pathway
 - postoperative complications, hospital-acquired deconditioning, postoperative cognitive disorders and medications
- Proactive discharge planning with multidisciplinary input
- Facilitated access to appropriate subacute and restorative care services
- Shared understanding of roles and responsibilities in relation to the local arrangements.

Examples of service models supporting collaborative management of older patients include Perioperative Medicine Teams and Perioperative Care of Older Persons undergoing Surgery (POPS) services.^{53,26, 64}

1 Consider, and implement as appropriate, the systems and processes needed to support
2 collaborative management of younger, complex patients who also need comprehensive
3 assessment and co-management by an appropriate physician.

4 Provide access to education and training for clinicians, appropriate to their role, in the care of
5 older surgical patients.

6 Related resources

- 7 • [A framework for perioperative care in Australia and New Zealand](#), ANZCA 2021

Indicators for local monitoring

Indicator 8a: Proportion of patients who had an emergency laparotomy who were aged 65 years or older and were assessed within 72 hours of hospital presentation by a geriatrician, or other appropriate physician.

Indicator 8b: Evidence of local arrangements to enable geriatrician or appropriate physician involvement in the proactive assessment and collaborative management of older patients who had an emergency laparotomy.

Quality statement 9

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, it is communicated to their general practice, and to clinicians and other care providers involved in their ongoing care.

Purpose

To support ongoing individualised care and recovery after discharge for patients who have had an emergency laparotomy.

What the quality statement means

For patients

Before you leave hospital, your healthcare team will talk with you and your family and/or support people and discuss a plan for your recovery and the ongoing care you will need. Other clinicians like physiotherapists, nurses or other doctors may also help to develop the plan which will address things like:

- Your goals for recovery
- Medicines you need to take including any changes to your existing medicines
- Changes you may need to make to your lifestyle including your diet
- Things you can do to help manage your other health conditions and prevent complications
- What you can do if you have any mental health concerns such as anxiety
- Who to contact if you experience complications or are concerned about your recovery
- Rehabilitation services and equipment you require
- Follow-up appointments you will need and other useful contacts such as community supports.

You will get a copy of your plan before you leave hospital, and a copy will be sent to your General Practitioner (GP) or other primary care provider and any other clinicians who will be helping you with your recovery.

For clinicians

Develop an individualised care plan with the patient and their support people and/or family before the patient leaves hospital and explain what they can expect during the recovery

period, including follow-up appointments. Present the plan in a way that the patient and their support people can understand. Key considerations for inclusion in the care plan are outlined in **Box 3**.

For older patients, patients with frailty and other patients with complex care needs, ensure multidisciplinary team involvement in discharge planning. As needed, this may include but is not limited to, input from a geriatrician or other appropriate physician, pharmacy, nursing, physiotherapy, occupational therapy, dietetics and social work.

Consider the needs of patients who were transferred from their local area for surgery and/or postoperative management. Involve them and their support people in decisions about the appropriate location for rehabilitation and other follow up care. Arrange for follow-up care to be provided as close to home as possible. Consider the suitability of alternative service delivery models such as telehealth where these may help meet the patient's needs and preferences.

Include the care plan in the patient's discharge summary for handover to primary care, or as part of the documented handover to the hospital providing follow up care. Provide the plan to the patient's general practice and other regular clinicians and care providers on discharge. Enable uploading to the patient's My Health Record. This allows other clinicians to access details about the patient's care, which can be vital for informing ongoing care in the community.

Box 3. Key considerations for inclusion in an individualised care plan on discharge⁶⁵

- Goals for recovery
- Information about medicines (including any new or changed medicines) and ongoing pain management strategies
- Guidance on nutrition, wound care and mobilisation
- Guidance on managing comorbidities during recovery, and on managing persistent delirium if present; strategies to prevent complications such as those related to infection or venous thromboembolism^{33, 46, 66}
- Rehabilitation equipment needed and contact details for rehabilitation services including referral as required
- Advice on responding to mental health concerns such as anxiety and loss of confidence
- Advice about accessing restorative care and/or multidisciplinary community care if needed, for example through a hospital in the home program or a GP Chronic Condition Management Plan
- Follow-up appointments required, including with their general practitioner and rehabilitation services if relevant, and contact details for appropriate community supports
- Contact details and other information about what to do if the patient becomes acutely unwell or has questions about their recovery
- For patients who have had sepsis, information on post-sepsis syndrome and available supports (See [Sepsis Clinical Care Standard](#), Quality Statement 7).³³

For healthcare services

Ensure that systems, protocols and procedures are in place to:

- Facilitate multidisciplinary input into discharge planning as needed, particularly for older patients, patients with frailty and other patients with complex care needs
- Support clinicians to develop an individualised care plan with patients prior to discharge, addressing the key considerations outlined in **Box 3** as appropriate
- Refer patients to the relevant services and supports as required

- Consider the specific needs of patients who were transferred out of their local area for surgery and/or postoperative management, and who are returning home on discharge, or following a period of rehabilitation.

Ensure that clinical information systems support clinicians in providing the discharge summary and care plan to the patient, and communicating the content to their general practitioner, and other care providers (such as residential aged care facilities, or community aged care providers) at the time of discharge. Where local clinical information systems allow, upload information to the patient's My Health Record to support appropriate sharing of information on the care provided in hospital and the patient's ongoing care needs.



Cultural safety and equity

Consider the patient's cultural needs, preferences and goals and their impact on the individualised care plan. It is important for the care plan to reflect the lived realities of the person and consider what supports are available within the family and community. Consider the culturally appropriate services, supports and contacts available for patients leaving hospital after an emergency laparotomy.

Ensure that information about recovery and the care plan is provided in a way that the patient and their support people understand and is culturally safe.

Consider the structured support that may be needed for people to safely return to their home when they have had surgery away from their community or Country.

Where accessing follow up care may be difficult due to distance or other access issues, offer to contact the patient's nominated primary care provider to advise that they are being discharged and discuss suitable support arrangements. For Aboriginal and Torres Strait Islander patients and their support people, Aboriginal Community Controlled Health Organisations (ACCHOs) and Aboriginal Medical Services can play an important role in providing access to relevant support after discharge, especially in rural and remote areas. Involve an Aboriginal and Torres Strait Islander health worker, practitioner or liaison officer when this is the patient's preference.

Indicators for local monitoring

Indicator 9a: Evidence of local arrangements for the development of a written individualised care plan that describes the ongoing care needs for a patient who had an emergency laparotomy, prior to discharge from hospital.

Overall indicators

Indicator 10a: Proportion of patients who had an emergency laparotomy who had an unplanned readmission to any hospital within 30 days of discharge.

Indicator 10b: Proportion of patients who had an emergency laparotomy and died within 90 days of their admitted patient episode of care.

Indicator 10c: Proportion of patients who had an emergency laparotomy and died within 30 days of their admitted patient episode of care.

Other Commission-endorsed indicators to support local monitoring

Sepsis Clinical Care Standard³³

Quality statement 3. Management of antimicrobial therapy

Indicator 3b: Proportion of patients with signs and symptoms of infection-related organ dysfunction who started their first dose of an empirical antimicrobial within 60 minutes of recognition.

Delirium Clinical Care Standard⁴⁶

Quality statement 4. Assessing and diagnosing delirium

Indicator 4a: Proportion of admitted patients who screened positive for cognitive impairment on presentation to hospital who were then assessed for delirium using a validated tool

Quality statement 5. Identifying and treating underlying causes

Indicator 5a: Proportion of patients with delirium who had a comprehensive assessment that includes relevant multidisciplinary consultation to investigate the cause(s) of delirium.

Indicator 5b: Proportion of patients with delirium who received multicomponent interventions to treat delirium.

Other indicators for consideration

- Elapsed time from hospital arrival to surgery (knife to skin)
- Destination on discharge from hospital
- Days alive and out of hospital (30/90)⁶⁷

1 Glossary

Term	How it is used in this document
advance care plan	A document that captures an individual's beliefs, values and preferences in relation to future care decisions, but which does not meet the requirements for statutory or common law recognition due to the person's lack of competency, insufficient decision-making capacity or lack of formalities (such as inadequate person identification, signature and date) ⁴⁹
clinicians	Clinicians are all types of healthcare providers who deliver direct clinical care to patients. They include surgeons, anaesthetists, intensivists, emergency physicians, geriatricians, general physicians, nurses, pharmacists, Aboriginal and Torres Strait Islander health workers, Aboriginal and Torres Strait Islander health practitioners and allied health professionals.
cognitive impairment	Deficits in one or more of the areas of memory, communication, attention, thinking, problem solving and judgement. Cognitive impairment can be temporary or permanent. It can affect a person's understanding, their ability to carry out tasks or follow instructions, their recognition of people or objects, how they relate to others and how they interpret the environment. Dementia and delirium are common forms of cognitive impairment seen in older people in all healthcare settings. Cognitive impairment can also be a result of several other conditions such as acquired brain injury, stroke, intellectual disability, licit or illicit drug use, or medicines. ⁶⁸
critical care unit	An intensive care unit (ICU) or high dependency unit (HDU) that provides intensive nursing and medical care of critically ill patients. Critical care units are characterised by continuous supervision and the use of advanced monitoring and resuscitative equipment. (See definitions for Intensive care unit and High dependency unit .)
cultural safety	<p>Cultural safety is determined by Aboriginal and Torres Strait Islander individuals, families and communities.</p> <p>In health care, culturally safe practice is the ongoing critical reflection of knowledge, skills, attitudes, practising behaviours and power differentials in delivering safe, accessible and responsive health care free of racism.</p> <p>Essential features of cultural safety are individuals and organisations:</p> <ul style="list-style-type: none"> • Acknowledging colonisation and systemic racism, and social, cultural, behavioural and economic factors which impact individual and community health • Acknowledging and addressing individual racism, and their own biases, assumptions, stereotypes and prejudices, and providing care that is holistic, and free of bias and racism • Recognising the importance of self-determined decision making, partnership and collaboration in health care which is driven by the individual, family and community • Fostering a safe working environment through leadership to support the rights and dignity of Aboriginal and Torres Strait Islander people and colleagues.
delirium	A disturbance of consciousness, attention, cognition and perception that develops over a short period of time (usually hours or days) and tends to fluctuate during the course of the day. Recovery is expected to be complete if the underlying cause (for example, physical illness, drug toxicity) is promptly corrected or self-limited. ⁴⁶
emergency laparotomy	Laparotomy is a major operation where the abdomen is cut open to examine or treat a problem inside the gastrointestinal tract. It encompasses surgical exploration of the acute abdomen for a number of underlying pathologies. In an emergency context, common causes are intestinal obstruction, perforation and

	exploratory laparotomy with or without wound debridement or abscess drainage'. ⁴ For the Clinical Care Standard, and the ERAS Society guidelines which underpin the Standard, the term “emergency” is applied to all patients with a non-elective, potentially life-threatening intra-abdominal condition requiring surgery, excluding trauma laparotomies, vascular conditions, appendectomy, and cholecystectomy.
frailty	A state in which an individual is more vulnerable to increased dependency and/or mortality when exposed to a physiological or psychological stressor. ⁶⁹
gastrointestinal tract	The organs that food and liquids travel through when they are swallowed, digested, absorbed, and leave the body as faeces - including the stomach, small intestine, large intestine, rectum, and anus.
geriatric syndromes	Clinical conditions common in older people with substantial implications for functioning and quality of life such as delirium and cognitive impairment, polypharmacy, falls and immobility. ^{48, 70}
goals of care	Clinical and other goals for a patient's episode of care that are determined in the context of a shared decision making process.
healthcare services	<p>Healthcare services are those responsible for leading and governing the service. They are the organisations responsible for implementing clinical governance, administration and financial management of one or more service units providing health care to patients.</p> <p>Health care is delivered in a wide range of settings. Services may vary in size and organisational structure from single healthcare providers to complex organisations.</p>
high dependency unit	A specially staffed and equipped area of a hospital that provides a level of care intermediate between intensive care and the general ward care. Hospitals with a designated ICU may have HDU beds located within them.
intensive care unit	A designated area of a hospital which is staffed and equipped to provide observation, care and treatment to patients with actual or potential life-threatening illnesses, injuries or complications, from which recovery is possible. The ICU provides special expertise and facilities for the support of vital functions and utilises the skills of medical, nursing and other staff trained and experienced in the management of these problems. ⁷¹
lactate	A test or non-specific marker of illness severity in acutely ill patients. ³³
limitations on medical treatment	<p>Medical decisions that may be made to limit the treatments that are, or could be, provided when they will not benefit the person. A decision to not attempt cardiopulmonary resuscitation if a person suffers a cardiopulmonary arrest is one example of a limitation of medical treatment. Decisions to limit medical treatment may avoid prolongation of dying but will not cause a person's death.</p> <p>Similar terms that are in common use include withdrawal or withholding of medical treatment.⁴⁹</p>
non-beneficial treatment	Interventions that will not be effective in treating a person's medical condition or improving their quality of life. Non-beneficial treatment may include interventions such as diagnostic tests, medicines, artificial hydration and nutrition, intensive care, and medical or surgical procedures. Non-beneficial treatment is sometimes referred to as futile treatment, but this is not a preferred term. ⁴⁶
older adult	Where care is described in this clinical care standard for older adults or older patients, 'older adults' refers to all people aged 65 years and above; it applies to Aboriginal and Torres Strait Islander people on an individual basis aged 45 years and above, recognising that Aboriginal and Torres Strait Islander people may experience chronic health conditions that can impact their recovery earlier in life.

palliative care	An approach to treatment that improves the quality of life of people and their families facing life-limiting illness by preventing and relieving suffering. It involves early identification, and assessment and treatment of pain and other problems (physical, psychosocial, and spiritual). ⁴⁹
patient	<p>The patient is the person receiving care. When the word ‘patient’ is used in this standard, it may include the person’s carer, family member, support person, or substitute decision maker.</p> <p>Only the patient or their substitute decision maker, such as a legal guardian, can give consent for care. However, carers, families and support people who are not substitute decision makers may also support the patient in their decision making and actively participate in their care. These people should be given information and included in discussions when the patient wishes this to occur.</p>
sepsis	Sepsis is a time-critical medical emergency that arises when the body’s response to an infection damages its own tissues and organs leading to failure of multiple organs, and death if not recognised and not treated promptly ¹ . Sepsis can occur in response to various types of infections, including bacterial, viral or fungal infections which are acquired both in community or healthcare settings. ⁷²
shared decision making	A discussion and collaboration between a person and their healthcare worker that brings together the person’s values, goals and preferences with the best available evidence about benefits, risks and uncertainties of treatment, in order to reach the most appropriate healthcare decisions for that person. ¹
source control	The identification and removal of the infection source to halt the ongoing microbial contamination of a normally sterile organ, tissue, or body cavity. ⁶⁰
substitute decision-maker	A person appointed or identified by law to make health, medical, residential and other personal (but not financial or legal) decisions on behalf of a patient whose decision-making capacity is impaired. A substitute decision-maker may be appointed by the patient, appointed for (on behalf of) the person, or identified as the default decision-maker by legislation, which varies by state and territory.

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References

1. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards (second edition). Sydney: ACSQHC; 2017.
2. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Primary and Community Healthcare Standards. Sydney: ACSQHC; 2021.
3. Australian Commission on Safety and Quality in Health Care. Fact sheet 11: Applicability of Clinical Care Standards. Sydney: ACSQHC; 2023.
4. 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.
5. 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.
6. 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.
7. The Royal College of Surgeons of England. The High-Risk General Surgical Patient: Raising the Standard 2018 2018.
8. NELA Project Team. Ninth Patient Report of the National Emergency Laparotomy Audit. London: 2024.
9. Royal Australasian College of Surgeons. ANZ Emergency Laparotomy Audit – Quality Improvement. [Internet]: RACS; 2025 [cited 4/09/2025] Available from: <https://www.surgeons.org/research-audit/morbidity-audits/morbidity-audits-managed-by-racs/anz-emergency-laparotomy-audit-quality-improvement>.
10. Australian Commission on Safety and Quality in Health Care. NSQHS Standards User Guide for Aboriginal and Torres Strait Islander Health. Sydney: ACSQHC; 2017.
11. Australian Commission on Safety and Quality in Health Care. User Guide for Reviewing Clinical Variation. Sydney: ACSQHC; 2023.
12. Australian Health Ministers' Advisory Council's National Aboriginal and Torres Strait Islander Health Standing Committee. Cultural respect framework 2016–2026 for Aboriginal and Torres Strait Islander health. Canberra: AHMAC; 2016.
13. Australian Health Practitioner Regulation Agency. Aboriginal and Torres Strait Islander Health Strategy [Internet]. Ahpra; 2023.
14. Lin I, Green C, Bessarab D. 'Yarn with me': applying clinical yarning to improve clinician-patient communication in Aboriginal health care. Aust J Prim Health. 2016 Nov;22(5):377-382.
15. Centre for Aboriginal Health. Communicating positively: A guide to appropriate Aboriginal terminology. Sydney: NSW Health; 2019.
16. Northern Territory Government. Plain English health dictionary. Darwin: Aboriginal Interpreter Service; 2023.
17. Department of Health and Aged Care. National health and climate strategy [Internet]. Australian Government; 2023.

- 1 18. Australian Commission on Safety and Quality in Health Care. Joint Statement: Working
2 Together to Achieve Sustainable High-quality Health Care in a Changing Climate.
3 Sydney: ACSQHC; 2024.
- 4 19. Barratt AL, Bell KJ, Charlesworth K, McGain F. High value health care is low carbon
5 health care. *Med J Aust*. 2022 Feb 7;216(2):67-68.
- 6 20. Burmas M, Aitken RJ, Broughton KJ. Outcomes following emergency laparotomy in
7 Australian public hospitals. *ANZ J Surg*. 2018 Oct;88(10):998-1002.
- 8 21. Australia and New Zealand Emergency Laparotomy Audit - Quality Improvement. Second
9 ANZELA-QI program summary report 1 January 2020 - 31 December 2021. 2022.
- 10 22. Fagan G, Barazanchi A, Coulter G, Leeman M, Hill AG, Eglinton TW. New Zealand and
11 Australia emergency laparotomy mortality rates compare favourably to international
12 outcomes: a systematic review. *ANZ J Surg*. 2021 Dec;91(12):2583-2591.
- 13 23. Peacock O, Yanni F, Kuryba A, Cromwell D, Lockwood S, Anderson I, et al. Failure to
14 rescue patients after emergency laparotomy for large bowel perforation: analysis of the
15 National Emergency Laparotomy Audit (NELA). *BJS Open*. 2021 Jan 8;5(1).
- 16 24. Saunders DI, Sinclair RCF, Griffiths B, Pugh E, Harji D, Salas B, et al. Emergency
17 Laparotomy Follow-Up Study (ELFUS): prospective feasibility investigation into
18 postoperative complications and quality of life using patient-reported outcome measures
19 up to a year after emergency laparotomy. *Perioper Med (Lond)*. 2021 Jul 26;10(1):22.
- 20 25. Khanderia E, Aggarwal R, Bouras G, Patel V. Quality of life after emergency laparotomy:
21 a systematic review. *BMC Surg*. 2024 Feb 26;24(1):73.
- 22 26. Aitken RM, Partridge JSL, Oliver CM, Murray D, Hare S, Lockwood S, et al. Older patients
23 undergoing emergency laparotomy: observations from the National Emergency
24 Laparotomy Audit (NELA) years 1-4. *Age Ageing*. 2020 Jul 1;49(4):656-663.
- 25 27. O'Brien P, Bunzli S, Lin I, Bessarab D, Coffin J, Dowsey MM, et al. Addressing surgical
26 inequity for Aboriginal and Torres Strait Islander people in Australia's universal health
27 care system: a call to action. *ANZ J Surg*. 2021 Mar;91(3):238-244.
- 28 28. Australian Institute of Health Welfare. Health and wellbeing of First Nations people.
29 Canberra: AIHW, 2024.
- 30 29. James Aitken R, Griffiths B, Van Acker J, O'Loughlin E, Fletcher D, Treacy JP, et al. Two-
31 year outcomes from the Australian and New Zealand Emergency Laparotomy Audit-
32 Quality Improvement pilot study. *ANZ J Surg*. 2021 Dec;91(12):2575-2582.
- 33 30. Oliver CM, Bassett MG, Poulton TE, Anderson ID, Murray DM, Grocott MP, et al.
34 Organisational factors and mortality after an emergency laparotomy: multilevel analysis of
35 39 903 National Emergency Laparotomy Audit patients. *Br J Anaesth*. 2018
36 Dec;121(6):1346-1356.
- 37 31. Royal College of Emergency Medicine. RCEM Advisory Statement Regarding the
38 Management of Adults Presenting to the Emergency Department Who May Require an
39 Emergency Laparotomy. 2024.
- 40 32. Australasian College for Emergency Medicine. Guidelines on the implementation of the
41 Australasian Triage Scale in emergency departments. *ACEM*, 2022.
- 42 33. Australian Commission on Safety and Quality in Health Care. Sepsis Clinical Care
43 Standard. Sydney: 2022.
- 44 34. Waugh EB, Hefler M, Pascoe S, Mayo M, Hare MJ, Story DA, et al. What do Aboriginal
45 people in the Northern Territory value during the operation journey? A qualitative study.
46 *Med J Aust*. 2025 Jul 7;223(1):30-37.

35. Limmer AM, Edye MB. Interhospital transfer delays emergency abdominal surgery and prolongs stay. *ANZ J Surg.* 2017 Nov;87(11):867-872.
36. Australian and New Zealand College of Anaesthetists. Joint Guideline for the Transport of Critically Ill Patients. ACEM, ANZCA and CICM, 2025.
37. American College of Radiology. ACR Appropriateness Criteria Acute Nonlocalised Abdominal Pain ACR, 2018.
38. 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.
39. The Royal Australian and New Zealand College of Radiologists. Iodinated Contrast Media Guideline. Sydney: RANZCR, 2018.
40. The Australian and New Zealand College of Radiologists. Position statement: Clinical radiology critical results and adverse outcomes notification v1.1. RANZCR, 2024.
41. The Royal Australian and New Zealand College of Radiologists. Standards of Practice for Clinical Radiology, Version 11.2. Sydney: RANZCR, 2020.
42. 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.
43. 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.
44. Barazanchi A, Bhat S, Palmer-Neels K, Macfater WS, Xia W, Zeng I, et al. Evaluating and improving current risk prediction tools in emergency laparotomy. *J Trauma Acute Care Surg.* 2020 Aug;89(2):382-387.
45. British Geriatrics Society. BGS Position Statement: Older Patients Undergoing Emergency Laparotomy. 2020.
46. Australian Commission on Safety and Quality in Health Care. Delirium Clinical Care Standard. ACSQHC, 2021.
47. Tiegies Z, MacLulich 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.
48. Australian and New Zealand Society for Geriatric Medicine. ANZSGM Position Statement Perioperative Care of Older People. ANZSGM; 2022.
49. Australian Commission on Safety and Quality in Health Care. National consensus statement: Essential elements for safe and high-quality end-of-life care. 2023.
50. 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.
51. Centre for Perioperative Care (CPOC). Guideline for Perioperative Care for People Living with Frailty Undergoing Elective and Emergency Surgery. 2021.
52. Anstey MH, Senthuran S. The what-if approach to perioperative planning. *Anaesth Intensive Care.* 2023 May;51(3):168-169.
53. Australia and New Zealand College of Anaesthetists. A framework for perioperative care in Australia and New Zealand. 2023.

- 1 54. Australian and New Zealand College of Anaesthetists. PG67(G) Guideline for the care of
2 patients at the end-of-life who are considered for surgery or interventional procedures
3 2022. ANZCA, 2022.
- 4 55. Barnett G, Swart M. Shared decision making for high-risk surgery. *BJA Educ.* 2021
5 Aug;21(8):300-306.
- 6 56. Bonus C, Northall T, Hatcher D, Montayre J. Experiences of perioperative care among
7 ethnically diverse older adult patients: An integrative review. *Collegian.* 2022 08/01;29.
- 8 57. Royal Australasian College of Surgeons. RACS Position Paper: Emergency Surgery.
9 2015.
- 10 58. NSW Agency for Clinical Innovation. NSW emergency surgery guidelines and principles
11 for improvement. Sydney: ACI, 2021.
- 12 59. Boyd-Carson H, Doleman B, Cromwell D, Lockwood S, Williams JP, Tierney GM, et al.
13 Delay in Source Control in Perforated Peptic Ulcer Leads to 6% Increased Risk of Death
14 Per Hour: A Nationwide Cohort Study. *World J Surg.* 2020 Mar;44(3):869-875.
- 15 60. De Waele JJ. Importance of timely and adequate source control in sepsis and septic
16 shock. *J Intensive Med.* 2024 Jul;4(3):281-286.
- 17 61. Vester-Andersen M, Lundstrøm LH, Møller MH, Waldau T, Rosenberg J, Møller AM.
18 Mortality and postoperative care pathways after emergency gastrointestinal surgery in
19 2904 patients: a population-based cohort study. *Br J Anaesth.* 2014 May;112(5):860-870.
- 20 62. Australian Commission on Safety and Quality in Health Care. National consensus
21 statement: Essential elements for recognising and responding to acute physiological
22 deterioration. 2021.
- 23 63. Ludbrook G, Lloyd C, Story D, Maddern G, Riedel B, Richardson I, et al. The effect of
24 advanced recovery room care on postoperative outcomes in moderate-risk surgical
25 patients: a multicentre feasibility study. *Anaesthesia.* 2021 Apr;76(4):480-488.
- 26 64. Partridge J, Sbai M, Dhesi J. Proactive care of older people undergoing surgery. *Aging*
27 *Clin Exp Res.* 2018 Mar;30(3):253-257.
- 28 65. Silva L, Crole Rees C, Watts T, Bisson J, Cornish J. SP4.2.2 Recovery after Emergency
29 Laparotomy – what do patients want? *British Journal of Surgery.*
30 2022;109(Supplement_5).
- 31 66. Australian Commission on Safety and Quality in Health Care. Venous Thromboembolism
32 Prevention Clinical Care Standard. Sydney: ACSQHC; 2020.
- 33 67. Spurling LJ, Moonesinghe SR, Oliver CM. Validation of the days alive and out of hospital
34 outcome measure after emergency laparotomy: a retrospective cohort study. *Br J*
35 *Anaesth.* 2022 Mar;128(3):449-456.
- 36 68. Department of Health and Aged Care. Glossary for the guiding principles and user guide.
37 Australian Government, 2022.
- 38 69. Church S, Rogers E, Rockwood K, Theou O. A scoping review of the Clinical Frailty
39 Scale. *BMC Geriatr.* 2020 Oct 7;20(1):393.
- 40 70. Inouye SK, Studenski S, Tinetti ME, Kuchel GA. Geriatric syndromes: clinical, research,
41 and policy implications of a core geriatric concept. *J Am Geriatr Soc.* 2007 May;55(5):780-
42 791.
- 43 71. Australian Institute of Health and Welfare. Intensive care unit. [Internet]: AIHW; 2018
44 [cited 8 Sep 2025] Available from: <https://meteor.aihw.gov.au/content/327234>.
- 45 72. Australian Commission on Safety and Quality in Health Care. National sepsis program.
46 [Internet]: ACSQHC; [cited 8 Sep 2025] Available from:
47 <https://www.safetyandquality.gov.au/our-work/national-sepsis-program>.

