GUIDELINE

Statewide Anaesthesia and Perioperative Care Clinical Network (SWAPNet)

Triage guidelines for pre-anaesthetic evaluation

Statement

Appropriate triage of patients undergoing anaesthesia ensures appropriate investigation, assessment and optimisation[1]. Many different models of assessment have been proposed over the years[2,3].

Traditional models of assessing all patients by an anaesthetist face to face prior to surgery in many cases is unnecessary, does not lead to better outcomes and may be inconvenient and expensive[4].

The COVID 19 global pandemic has led to significant changes in practice around pre-anaesthetic evaluation with a large shift to telehealth-based models. When deciding the most appropriate consultation type consideration should be given to the local transmission risk of COVID 19.

Purpose

To provide guidance on the selection of appropriate assessment methods for patients undergoing elective surgery in Queensland public hospitals. It provides guidance only and must be tailored to individual hospital requirements.

Scope

This guideline applies to the management of patients undergoing elective surgery within Queensland public hospitals. The scope of the guidelines is limited to adult patients only.

Related documents

- SWAPNet Preoperative Investigations Guideline
- SWAPNet Pre-anaesthetic Evaluation Framework Implementation Guideline
- Adult Integrated Pre-Procedure Screening Tool
- ANZCA guidelines on Pre-Anaesthesia Consultation and Patient Preparation (PS07)
- Diabetes Australia Best Practice Guidelines

Document details

Document title:	Perioperative Investigations Guideline
Publication date:	30 September 2021
Review date:	1 October 2024 (or as required)
Amendments:	Full version history is detailed on page 8
Author:	Statewide Anaesthesia and Perioperative Care Clinical Network
Endorsed by:	Statewide Anaesthesia and Perioperative Care Clinical Network Steering Committee and Statewide Surgical Advisory Committee
Contact:	SWAPNET@health.qld.gov.au

Disclaimer:

These guidelines have been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. Information in this guideline is current at time of publication.

Queensland Health does not accept liability to any person for loss or damage incurred as a result of reliance upon the material contained in this guideline.

Clinical material offered in this guideline does not replace or remove clinical judgement or the professional care and duty necessary for each specific patient case.

Clinical care carried out in accordance with this guideline should be provided within the context of locally available resources and expertise.

This Guideline does not address all elements of standard practice and assumes that individual clinicians are responsible to:

- Discuss care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes the use of interpreter services where necessary
- Advise consumers of their choice and ensure informed consent is obtained
- Provide care within scope of practice, meet all legislative requirements and maintain standards of professional conduct
- Apply standard precautions and additional precautions as necessary, when delivering care.
- Document all care in accordance with mandatory and local requirements.

TRIAGE GUIDELINES FOR PRE-ANAESTHETIC EVALUATION

Some Queensland Health hospitals have developed individual triage guidelines to reflect their specific circumstances and requirements.

This guideline provides a framework with examples of particular patient groups that may be suitable for different forms of assessment. It is important to note that all patients will be assessed by an anaesthetist prior to their procedure in line with Australian and New Zealand College of Anaesthetists (ANZCA) recommendations. The purpose of triaging is to decide when and how that assessment should take place (on the day of surgery or prior to the day of surgery).

Prior to the day of surgery, assessments may be face to face, via telephone or telehealth depending on the individual circumstances and hospital process. These assessments allow for patient optimisation, education and the development of care plans including advanced care planning.

Consideration should also be given to the current risk level of hospital attendance in relation to COVID-19 as well as difficulty patients may face in attending a face-to-face appointment.

1. The traffic light streaming system

The Traffic Light Streaming System is described in the Triage Assessment Tool.

Red Stream	This group of patients requires assessment by an anaesthetist prior to the day of surgery. This may be based on the surgical complexity or patient co-morbidities.
Amber Stream	This group of patients require escalation of their triage to a medical or senior medical officer or require further information/investigation prior to a Red or Green Stream being allocated. Patients cannot remain in the Amber stream, they must eventually be Red or Green.
Green Stream	This group of patients have been identified by the triage tool or medical review as not requiring assessment by an anaesthetist prior to the day or surgery.

2. Clinical information to support triage decision making

Clinical information to support triage decision making can come from multiple sources:

2.1 Theatre booking information

Should include as a minimum; the operation planned, estimated length of surgery and whether the procedure is planned as a day case or inpatient episode. It may also include special instructions or medication advice from the surgical team depending on the facility.

2.2 Clinical information systems

Systems include The Viewer, Electronic Discharge Summary (EDS), Automated Anaesthetic Record Keeping System (AARK), Electronic Medical Record (EMR) or Hospital Based Corporate Information System (HBCIS).

2.3 Adult Integrated Pre-procedure Screening Tool or equivalent

Should be completed by the patient when they are booked for surgery. It forms an essential part of the triage process. Failure to complete this documentation may delay triage or lead to inappropriate triage.

Patients may complete this document themselves and return it by post or the information may be collected by telephone to facilitate appropriate triage.

(Refer to Attachment 1, Adult Integrated Pre-Procedure Screening Tool)

3. Recommendations for specific surgery grades

3.1 Surgery grades

Surgical Grade	Examples
Minor	Excision of skin lesion Myringotomy tubes Hysteroscopy Endoscopy/Colonoscopy
Intermediate	Hernia repair Laparoscopic Cholecystectomy Arthroscopy Tonsillectomy
Major/Complex	Total abdominal hysterectomy TURP Thyroidectomy Joint replacement Colonic resection

3.2 Major or complex surgery

Patients undergoing major or complex surgery such as joint replacement, open abdominal surgery, colonic resection and thyroidectomy should be assessed by an anaesthetist prior to the day of surgery.

This consultation allows for risk assessment, optimisation and the discussion of possible anaesthetic techniques and their associated risks. Institutions could develop a local list of specific procedures that require prior anaesthetic assessment.

It may be possible for this consultation to be conducted via telephone or telehealth for patients who may experience significant difficulty in attending face to face appointments. Consideration must be given to the requirement for investigations prior to surgery and whether these can be conducted by an alternative provider closer to the patients' home.

Each facility should define a list of procedures which will automatically trigger an anaesthetic assessment prior to the day of surgery. The first section of the Triage Assessment Tool shown below can be used for this purpose.

Red Stream

This group of patients will always be assessed prior to the day of surgery by an anaesthetist.

The list of operations included in this category should reflect the Clinical Service Capability Framework of the facility. It should be developed in collaboration with anaesthetists, surgeons and perioperative staff.

Patients booked for surgeries in this list can be booked directly into a pre-admission appointment by administrative staff without further medical or nursing staff oversight.

List of operations always requiring face to face assessment by an anaesthetist	

3.3 Minor and intermediate surgical severity classifications

It is anticipated that all patients undergoing surgery will need some input from a pre anaesthetic evaluation service. Patients not requiring assessment by an anaesthetist prior to the day of surgery will need to be, as a minimum, contacted by a member of staff by telephone. This is to ensure that the clinical information provided is correct, confirm fasting instructions and answer any questions they may have about their upcoming surgery.

There are no consensus guidelines on what pre-morbid conditions or risk factors should warrant assessment by an anaesthetist prior to the day of surgery. One small study identified agreement amongst consultant anaesthetist that assessment prior to the day of surgery should be conducted in the following circumstances[5]:

- Angina weekly or more frequently
- Myocardial Infarction in the last 12 months
- Asthmas with attacks weekly or more frequently
- Stoke within 6 months
- Epilepsy with seizures weekly or more frequently
- Chest pain or breathlessness on climbing 2 flights of stairs at normal speed
- Problems with pain/stiffness of the neck or jaw limiting movement
- Personal or family history of anaesthetic related complications

These can be considered 'Red Stream' symptoms which should automatically trigger assessment by an anaesthetist.

4. Triaging using the Adult Integrated Pre-procedure Screening Tool

The Adult Integrated Pre-procedure Screening Tool provides questions that trigger the need for an assessment by an anaesthetist. The Triage Assessment tool allows facilities to individualise this process to suit their own needs.

To enable a patient to progress down the green pathway, they must have answered 'No' to all of the questions in the Adult Integrated Pre-Procedural Screening Tool or 'Yes' with a corresponding green pathway response.

Any red response results in the patient entering the red pathway and a booked PAC appointment with an anaesthetist.

- If a patient ticks 'Yes' without a corresponding green or red response, they will be designated as amber and require clinical triage by an anaesthetist to determine if they enter the green pathway or red pathway. All amber patients ultimately enter either the red or green pathway.

Question		Green pathway	Red pathway
1.	Have you or any of your blood relatives ever had a problem with an anaesthetic	Nausea/Vomiting Low blood pressure Slow to wake up	Suxamethonium apnoea Malignant Hyperthermia ICU admission
2.	Difficulty swallowing, opening your mouth or moving your neck		
3.	Difficulty walking up more than 2 flights of stairs	Minor Surgery	Major/Complex Surgery
4.	Dentures	Any response	
5.	Loose or chipped Teeth	Any response	
6.	High blood pressure	Diastolic <100	
7.	Angina		
8.	Arrhythmia or palpitations	Controlled AF	Ventricular.tachycardia

		Palpitations	
9.	Heart attack	>3 months ago and can walk 2 flights of stairs	Within 3 months
10.	Heart surgery, pacemaker, defibrillator inserted		
11.	Other heart problems		
12.	Heartburn or acid reflux		
13.	Liver disease, hepatitis, jaundice		
14.	Kidney disease		
15.	Blood clots in the legs or lungs	Previous DVT no longer on anticoagulation	PE within 3 months
16.	Diabetes		Diabetes
17.	Asthma	Well controlled, no hospital admission within last 3 months	Asthma
18.	COPD, emphysema, lung disease	Ability to climb 2 flights of stairs and no admission within 3 months.	COPD, emphysema, lung disease
19.	Sleep apnoea		Sleep apnoea
20.	Stroke or TIA		Stroke or TIA
21.	Epilepsy or fits		Epilepsy or fits
22.	Arthritis		Arthritis
23.	Bleeding, bruising disorders		Bleeding, bruising disorders
24.	Anaemia, previous blood transfusion	Previous blood transfusion	Anaemia, previous blood transfusion
25.	Have you ever smoked tobacco		Have you ever smoked tobacco
26.	Do you drink alcohol		
27.	Do you take recreational (party) drugs		
28.	Could you be pregnant		
29.	Do you suffer from anxiety, depression or emotional disorders		
30.	Other medical conditions or disabilities not mentioned		

5. Method of assessment

5.1 Face to face appointments with an anaesthetist

Facilities may wish to categorise face to face appointments based on their expected complexity.

Below are some suggested appointment categories that can be used. This may be useful in particular when a consultant is not always available for pre-anaesthetic assessment.

Short — Consultation is expected to take less than 15 minutes, be suitable to be carried out by a registrar without direct supervision, Likely lower complexity patients/surgery, but still require face to face assessment.

Medium	Consultation is expected to take approximately 30 minutes. They may be suitable for a registrar to see with consultant oversight.
Long	Is a complex patient and the consultation is likely to take longer than 30 minutes. Whilst a registrar may conduct the interview it is anticipated that specialist input will be required. These should only be booked to a clinic where a consultant is present

5.2 Non face to face appointments (telephone or telehealth)

Nurse	Is for low complexity patients undergoing minor or moderate surgical procedures who do not require assessment face to face. This may be suitable for patients who have been previously assessed but had surgery postponed.
Doctor	Can replace a short or medium face to face consultation. This is for patients who require consultation with an anaesthetist but are not required to attend in person. Likely patients include those undergoing more complex surgery but with few co-morbidities. Examples include – C/Section, ENT. Patients who require investigations such as ECG or Spirometry cannot be assessed by this method. If patients only require blood tests this may be possible as they could have them conducted at an alternative facility. Attachment 2 (flow chart), reflects the process outlined above.

6. Special circumstances

6.1 Risk of COVID -19

In circumstances where there increased transmission risk of COVID-19, in person attendance for pre-anaesthetic evaluation should be minimized. Wherever possible assessment should occur via telehealth with investigations obtained locally or on the day of surgery.

6.2 Recent anaesthetic

Patients who have undergone an anaesthetic evaluation for a similar procedure in the last 12 months are unlikely to need a further assessment if their health status has not changed.

6.3 Cataract surgery

The majority of patients presenting for ophthalmology surgery are elderly and have co-morbid disease. 80% of patients presenting for cataract surgery are >70 years old and 60% have pre-existing medical problems.

The majority of these procedures can be carried out under either topical or regional anaesthesia. This can either be with or without conscious sedation. This should have a lower morbidity and minimal disruption to a patient's daily routine than general anaesthesia.

The majority of patients do not need to be seen by an anaesthetist. They can be evaluated by nursing staff either face to face or via telephone using available clinical information. Patients requiring a general anaesthetic will most likely require anaesthetist review.

Some patients may not be suitable for Local/Regional techniques and may require a general anaesthetic. These include:

- An inability to lie flat for 30 minutes – This could be due to lumbar spinal problems, severe cardiorespiratory disease, chronic cough, movement disorders such as Parkinson's Disease among others
- Previous adverse reaction or serious complication with regional anaesthesia
- Patient preference
- Children
- Communication difficulties – severe deafness, dementia, learning difficulties, previous stroke

6.4 Severe claustrophobia or panic attacks

There may be surgical reasons for general anaesthesia such as previous retinal surgery.

These patients should be assessed by an anaesthetist prior to the day of surgery as they will most

likely require a general anaesthetic.

6.5 Frailty

As the population ages, increasing numbers of older adults are undergoing surgery. Frailty is prevalent in older adults and may be a better predictor of post-operative morbidity and mortality than chronological age. Patient who are at risk of frailty should be referred for anaesthetic review.

Tools such as a clinical frailty scale may be used to determine the level of frailty.

If an in-depth determination of frailty is deemed necessary, then more intensive methods can be used that include testing with the Edmonton Frail Scale, the Timed Up and Go test, and testing of grip strength.

7. Clinical references

1. Committee on S, Practice P, Apfelbaum JL, Connis RT, Nickinovich DG, American Society of Anesthesiologists Task Force on Preanesthesia E, et al. Practice advisory for preanesthesia evaluation: an updated report by the American Society of Anesthesiologists Task Force on Preanesthesia Evaluation. Anesthesiology. 2012;116(3):522-38.
2. Hines S, Munday J, Kynoch K. Effectiveness of nurse-led preoperative assessment services for elective surgery: a systematic review update. JBI Database System Rev Implement Rep. 2015;13(6):279-317.
3. Fischer SP. Development and effectiveness of an anesthesia preoperative evaluation clinic in a teaching hospital. The Journal of the American Society of Anesthesiologists. 1996;85(1):196-206.
4. Ireland S KB. Telephone pre-operative assessment for adults: reviewing the evidence through systematic review. ACORN; The Journal of Perioperative Nursing in Australia. 2013;26(4):23-9.
5. Hilditch WG, Asbury AJ, Crawford JM. Pre-operative screening: criteria for referring to anaesthetists. Anaesthesia. 2003;58(2):117-24.

8. Compliance monitoring and outcome evaluation

In the outpatient environment, audits / evaluations should be completed on an annual basis or as required to:

- Identify the deviations in compliance with the guideline and monitor preoperative testing prescribing

9. Version control

Version No	Modified by	Amendment schedule	Approved by
v0.1	Dr Owain Evans and Ms Corrina Green	Initial draft	Dr Ivan Rapchuk, Co-Clinical Chair, SWAPNet
v0.2	Dr Owain Evans and Ms Corrina Green	Final review following consultation	Dr Ivan Rapchuk, Co-Clinical Chair, SWAPNet
v0.3	Ms Karen Hamilton	Reviewed for compliance with Queensland Health policy / guidelines	Dr Ivan Rapchuk, Co-Clinical Chair, SWAPNet
v1.0	Ms Karen Hamilton	Endorsed on 1 September 2017	SWAPNet Steering Committee
V1.1	Dr Owain Evans	Amended to reflect feedback during trial site implementation	SWAPNet Steering Committee
v2.0	Dr Owain Evans	Reviewed to ensure alignment with current best practice	Dr Morne Terblanche and Ms Corrina Green, Co-Chairs, SWAPNet

		Endorsed on 10 September 2021	SWAPNet Steering Committee

CONTACT

For further information / assistance please contact:

SWAPNet Coordinator
Phone: (07) 3328 9164
Email: SWAPNET@health.qld.gov.au