

Key principles for management of surgery during COVID-19 pandemic

Advice for NSW health services

This guideline outlines the key principles for managing surgical procedures to maintain service availability during a period of heavy demand for health system resources during an unprecedented national emergency.

During this emergency period, the Ministry of Health has advised performance management activities relating to surgery will be suspended, with a view to focussing on ensuring staff and patient safety and long term sustainability of services. This advice is to be promoted across public and private hospitals in NSW.

Principles for NSW surgical services during COVID-19 pandemic

More detail is outlined below for each key principle.

1. Maintain emergency surgery capability and capacity
2. Prioritise urgent elective surgery
3. Mobilise and protect the surgical workforce
4. Preserve capacity to support the health service COVID-19 response
5. Plans are dynamic, and will change as the COVID-19 pandemic unfolds.

More detail is outlined below for each key principle.

1. Maintain emergency surgery capability

- There will be continued demand for emergency surgery and these patients must receive optimal care. Consider designating hospitals for high complexity emergency cases.
- Where feasible, identify specific operating theatres or designated facilities, for patients who may have been exposed to COVID-19.

- If possible, all emergency surgery patients should be tested for COVID-19 so that they can be housed in appropriate wards to minimise cross infection.
- Review and assess availability of consumables and PPE daily to determine if demand can be met.
- Consider and plan contingences should emergency surgery need to be reduced.

2. Prioritise urgent elective surgery

- Postpone all non-essential elective surgery, including invasive and diagnostic procedures such as routine endoscopy and radiology performed in theatres, from 26 March 2020, in both public and private hospitals, to allow access for the most urgent patients.
- Prioritise Category 1 and urgent Category 2 elective surgery.
- Additional advice to support decision making is outlined below and further guidance on surgical subspecialties will be developed, however clinical prioritisation should be undertaken by the consultant surgeon, an independent peer, anaesthetist and surgery nurse manager or hospital administrator at a minimum.
- Where possible, undertake surgical interventions and diagnostic activities which are not able to be postponed in an outpatient setting or using a day only surgical care model. Careful prioritisation of clinical urgency and coordination of day only cases will be required, to ensure social distancing and personal protective measures are maintained and the risk of transmission of COVID-19 is minimised.

- It may be possible to bring forward semi-urgent surgery in the coming weeks using either existing facilities or purchasing services in the private sector. This may prevent future presentations to emergency departments, and free up valuable resources as demands on the health system escalate. Careful assessment of the impact of bringing these cases forward on other elements of the health service must be made prior to implementing this strategy.
- Consider the risk of cross-contamination of less urgent surgical patients with COVID-19 positive patients, particularly for those patients whose length of stay is expected to be longer.

3. Mobilise and protect the surgical workforce

Our workforce is the backbone of the health system and this pandemic response. Only through keeping them safe can services continue to function for patients.

- Convene a small group of clinicians, nurses and managers responsible for oversight of decision-making in relation to surgery, including assessment and prioritisation of elective surgery and management of high-risk or high complexity patients. To be effective this group must be clinician led.
- Maintain communication between all surgical services in NSW for collaborative response planning, identification of emerging issues, risks and novel service delivery models.
- Suspend usual surgical training programs and implement consultant and fellow-led surgery to maximise resource efficiency.
- Cease medical student placements to the hospital, except where fast-track programs for pre-intern roles are established.
- Limit non-essential hospital attendees such as visitors and volunteers.
- Follow infection control advice provided by the Clinical Excellence Commission.
- Educate all frontline staff to ensure competency in donning and doffing PPE.
- Create time in hours for teams to practice for complex scenarios.

- Identify procedures and interventions with higher transmission risk, e.g. ENT, dental surgery and airway manipulation or instrumentation, and those team members requiring PPE specific to this risk.
- Consider rotating rosters to protect and streamline surgical workforce. Subspecialty rosters may have to be suspended or amalgamated.
- Opportunity to retrain or upskill relevant theatre/medical staff to provide ward based care e.g. for patients requiring ventilator management.

4. Preserve capacity to support the health service COVID-19 response

It is vital that surgery works to preserve valuable resources needed by other parts of the health system.

- Review theatre session template and reallocate sessions according to bed demand and clinical need. Pooling of patients may be required to facilitate these changes.
- Consider whether elective surgery patients will need access to ICU beds.
- Identify cases which could be moved to the private sector and agree local access arrangements with private hospital partners.
- Identify available infrastructure for surge-level activity.
- Consider surgeon led assessment for surgical patients presenting to ED.
- Conserve PPE for targeted activity.
- Consider how operating theatres may be converted to care for ventilated patients in the event ICU capacity is exceeded by demand.
- Develop key messages for patients and the wider community about how the facility is managing surgery at the present time to assist staff to communicate with confidence and consistency.
- Consider mentorship and support mechanisms in the event surgical staff are required to undertake non-surgical roles.
- Consider strategies to organise staff into separate functional groups to minimise transmission risk and preserve backfill capacity.
- Identify telehealth capabilities for patient assessment and consultation.

5. Plans are dynamic, and will change as the COVID-19 pandemic unfolds

This guidance has been developed based on international experiences to date with the COVID-19 pandemic, and expert clinical and system-level advice. However, as the trajectory of the pandemic continues and capability of the health system to respond is realised, guidance will be adapted accordingly.

Surgical teams will need to work collaboratively with each other, their clinical colleagues, health service managers and system-level administrators. This is essential to ensure that a comprehensive and effective approach to managing urgent elective and emergency surgery is implemented, staff remain safe and service availability is maintained as best as possible for our communities. Clinician leadership is essential.

Recommendations for determining case progression of non-emergency surgery

The following principles are recommended to be applied in both public and private facility surgical services when determining if a non-emergency surgical case should proceed:

- At the time of decision making, both the clinical need of the patient, and capacity of the service to meet those needs, must be considered when making decisions to cancel, postpone or proceed with an elective surgical intervention.
 - The risk of delay or postponement, and therefore urgency of a case, must be assessed by a consultant with expertise in the relevant surgical specialty. This should include an aggregate assessment of the risk of proceeding and the risk of delay, where an expected delay of 8-12 weeks can be applied as a benchmark.
- The feasibility of performing the surgical intervention must be assessed in collaboration with clinicians and either managerial or administrative staff in light of the current availability of staff, bed, and equipment, safety of clinicians and include consultation to ensure that the impact on inter-related elements of the health service is fully assessed.
- Clinical need, risk of delay and assessment of feasibility should all inform the decision to cancel, postpone or proceed with an elective surgical intervention, and these decisions will be specific to the local health district or facility in question. Case-mix, resourcing, staff availability and degree of impact on the service from the COVID-19 pandemic will result in marked variation in decision making between facilities. The decision to proceed with surgery must be based on the needs of that individual patient balanced against the necessity not to jeopardise the hospital's capacity to manage the expected admission of COVID-19 patients in the coming months.

Document information	
Version number	3
Original publication date	24 March 2020
Developed by	Agency for Clinical Innovation State Health Emergency Operations Centres
Consultation	Surgical Services Taskforce
Endorsed by	Nigel Lyons
Review date	29 June 2020
Reviewed by	
For use by	District and Network Chief Executives, Directors of Medical Services, Clinical Directors of Surgery, Surgery Operations Managers, Departments of Anaesthesia and Perioperative Service