

Managing suspected or confirmed COVID-19 patients in positive pressure operating theatres

Not all facilities have access to a negative pressure room or have the option to convert rooms from positive to negative pressure settings. This document provides recommendations for managing suspected and confirmed COVID-19 patients in positive pressure operating theatres.

Where possible, operating theatres should be designated for COVID-19 and non-COVID-19 patients to minimise transmission risk and reduce turnover time between patients.¹ All local processes should be aligned to the statewide [Response and Escalation Framework](#). The [ACI Personal Protective Equipment in the Operating Theatre decision support tool](#) outlines the minimum standards for personal protective equipment (PPE) to be worn by each health worker in the operating theatre environment.

Where feasible, COVID-19 suspected patients should have rapid testing prior to an emergency procedure. It is vital to ensure all staff caring for COVID positive or suspected patients are fully vaccinated. For respiratory protection, staff must also be fit tested for the appropriate respirator and perform fit checking every time a respirator is donned.

Interim advice for the setup of a positive pressure theatre*

- **Verify that operating room ventilation, and especially air changes per hour, comply with specification.**
- **Have an understanding of the pressure differentials between the operating theatre and anaesthetic bay.**
- **Do not tape up doors and cracks as this will increase the jet effect from inside to outside (that is, change the air pressure and flow).**

- **Have a marked exclusion zone of 1.5m outside the operating theatre entry and exit doors. The exit zone can also double as the doffing zone for masks and eye wear when the door is closed.**

Principles of best patient care apply when a positive pressure operating room is the only option available to a healthcare facility while looking after a suspected or confirmed COVID-19 patient, or where a high risk aerosol generating procedure (AGP) is being undertaken.

- Preoperatively, the patient should be in the most suitable isolation areas available, with advice on hand hygiene and provided with a surgical mask to wear.
- Infection prevention and control precautions should be in place during transfer to the operating theatre, including appropriate PPE for staff involved in the transfer and a clear route.¹ Lifts should not be shared with any other patients, staff or visitors.
- Provision for rapid confirmation of the correct patient and correct procedure with prompt transfer to the operating theatre without waiting in holding areas or the anaesthetics bay.¹
- Minimise unnecessary equipment, and staff or company representatives, in the operating theatre and in the immediate vicinity of that operating theatre.¹
- Minimise staff in the room for any AGPs. Staff in the room for any AGPs should wear appropriate PPE as per current guidelines.¹

- At all times staff entering a room with a COVID or suspected COVID patient should wear appropriate PPE (minimum fitted P2/ N95 and eye protection, +/- protective gown and gloves). There is no requirement to wait any length of time after an AGP if staff are correctly wearing PPE.
- Any staff immediately outside the room, who are likely to be handed equipment from inside the operating theatre or will be required to hand equipment into the room, should wear PPE appropriate to the procedure.
- Consider recovering the patient in the procedural room. If workload does not allow, choose the most suitable single room or dedicated space if available.
- Transfer the patient back to the most appropriate space for ongoing care, with precautions for the transfer.
- Undertake cleaning and disinfection as per current guidelines.

Relevant resources

- [CEC COVID-19 Prevention and Control Manual](#)
- [CEC – COVID-19 Infection Prevention and Control – Health worker safety](#)
- [ACI Personal Protective Equipment in the Operating Theatre and Procedural Areas](#)
- [Critical Intelligence Unit - Non-Invasive Positive-Pressure Ventilation Evidence Check](#)

Evidence base

For the development of the document, a Google search was undertaken in May 2020, July 2021 and repeated in July 2022, using the key search terms positive pressure theatre, negative pressure theatre and COVID-19. No new evidence regarding practical guidance on managing in a positive pressure operating theatre was identified in the July 2022 search. Guidance from state and national bodies has been included in the document. This evidence was supplemented with experiential evidence from subject matters experts to provide practical advice to help solve an infection control issue.

The Anaesthesia Community of Practice Executive developed the document, with input from the broader Anaesthesia Community of Practice. Consultation was undertaken with the Surgery Community of Practice and Infection Prevention and Control Community of Practice. The final document was approved by the Clinical Lead of the Anaesthesia Community of Practice.

References

1. Clinical Excellence Commission. Infection Prevention and Control Manual – Chapter 6: Specific Healthcare Settings [Internet]. Sydney. CEC; 2021 [cited 13 July 2021]. https://www.cec.health.nsw.gov.au/_data/assets/pdf_file/0003/644007/Chapter-6-COVID-19-IPAC-manual.pdf

Document information	
Version number	3
Original publication date	21 July 2020
Developed by	Anaesthesia Community of Practice
Consultation	Surgery CoP, Infection Prevention and Control CoP
Endorsed by	Nigel Lyons
Review date	1 August 2022
Reviewed by	Anaesthesia Community of Practice, Surgery Community of Practice and Infection Prevention and Control Community of Practice
For use by	District and Network Chief Executives, Directors of Medical Services, Clinical Directors of Anaesthesia, Clinical Directors of Surgery, Surgery Operations Managers, Departments of Anaesthesia and Perioperative Service



© State of New South Wales (Agency for Clinical Innovation) 2020.

[Creative Commons Attribution-NoDerivatives 4.0 licence](#).

For current information go to: aci.health.nsw.gov.au

The ACI logo is excluded from the Creative Commons licence and may only be used with express permission.