

# Guideline: Aerosol generating respiratory therapies - Nebulisers



*Endorsed by Queensland Statewide Respiratory Clinical Network*

**Nebulisers generate a high level of aerosolised particles that spread widely and can infect staff and other patients.**

**Please make sure there is no alternative to delivering medication via a nebuliser for your patient with acute respiratory illness (including COVID-19).**

The purpose of this document is to provide guidance and support clinicians considering using nebulisers during the COVID-19 pandemic.

## Remember

- Metered dose inhalers (MDIs) are the most effective way to deliver bronchodilators for asthma or chronic obstructive pulmonary disorder (COPD) and are much safer.
  - MDIs should be used in conjunction with spacer devices.
  - MDI adapters should be preferentially used rather than nebulisation in patients requiring non-invasive (NIV) or invasive ventilatory support.
  - For severe acute bronchospasm\* in:
    - salbutamol 12 puffs (100mcg per actuation) via MDI and spacer
    - ipratropium 8 puffs (21mcg per actuation) via MDI and spacer.
- adults and children 6 years and older**
- Nebulised therapy should be approved by senior clinicians before initiation and require a detailed management plan for review and cessation of nebulisers – including end of life planning when appropriate.
  - For patients with COVID-19 receiving respiratory support, use single and negative pressure rooms wherever possible. If none are available, other alternatives are single rooms, or shared ward spaces with cohorting of confirmed COVID-19 patients. Ensure contact, droplet and airborne precautions are in place. Healthcare workers should be fully vaccinated and wearing fit-tested N95 masks. The additional relative risk of infection to healthcare workers associated with specific oxygen therapies and respiratory support is uncertain but is thought to add minimal additional risk in an environment where transmission of infection with COVID-19 is already high. [Australian guidelines for the clinical care of people with COVID-19 \(magicapp.org\)](https://www.magicapp.org/).
  - Any room which has had an aerosol generating procedure in it requires airborne precautions for a minimum of 30 minutes after.
  - The exact time depends on air changes per hour. See: Queensland Health [Interim infection prevention and control guidelines for the management of COVID-19](#) in healthcare settings.
- children 1–5 years old**
- salbutamol 6 puffs
  - ipratropium 4 puffs (21mcg per actuation) via MDI and spacer.
- \* National Asthma Council. [Australian Asthma Handbook: Managing acute asthma in clinical settings](#)

There are limited circumstances where nebulisers are the only way to deliver aerosolised medications to patients. These include severe life-threatening exacerbations of asthma, nebulised adrenaline for croup in children, or aerosolised medications used in treatment of cystic fibrosis.

**Additional consideration should be given to the use of nebuliser therapies in conjunction with NIV.**

**Use of these therapies in combination is potentially much higher risk as they could transfer a high load of infectious aerosols over a greater distance.**

**For patients with COVID-19 receiving respiratory support, use single and negative pressure rooms wherever possible. If none are available, other alternatives are single rooms, or shared ward spaces with cohorting of confirmed COVID-19 patients. Ensure contact, droplet and airborne precautions are in place. Healthcare workers should be fully vaccinated and wearing fit-tested N95 masks. The additional relative risk of infection to healthcare workers associated with specific oxygen therapies and respiratory support is uncertain but is thought to add minimal additional risk in an environment where transmission of infection with COVID-19 is already high. [Australian guidelines for the clinical care of people with COVID-19 \(magicapp.org\)](https://www.magicapp.org)**

## Version Control

Version	Date	Author	Changes	Date approved by CSRG	Proposed Review Date
0.1	12/03/2020	Statewide Respiratory Clinical Network Steering committee	New document		
1.0	27/10/2021	Changes made and endorsed by the Statewide Respiratory Steering Committee	Updated content. Format changes have occurred for a cleaner document.		27 April 2022
2.0	9/12/2021	Statewide Respiratory Clinical Network Steering committee	Endorsed by the COVID System Response Group (CSRG).		27 April 2022
2.1	13/12/2021	Changes made and endorsed by the Statewide Respiratory Steering Committee	Purpose statement and Workforce and funding considerations added. Renamed Guideline.	22/12/2021	27 April 2022
2.2	12/01/2022	Statewide Respiratory Clinical Network	Changes (highlighted) to align with Australian Guidelines for the clinical care of people with COVID-19 – Respiratory Management.	25/01/2022	27 April 2022