

# Aerosol generating respiratory therapies

## Nebulisers



**Nebulisers generate high amounts of aerosolised particles which have the potential to transmit respiratory viruses to healthcare workers and other patients.**

**Please remember the points below when nebulisers are the most appropriate way to deliver treatment for your patient when they are unwell with an acute respiratory viral illness (including COVID-19).**

- 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, or MDI adapters in the case of patients requiring non-invasive (NIV) or invasive ventilatory support.
- The use of nebulisers in the treatment and management of patients with COVID-19 can be reviewed in the [Australian guidelines for the clinical care of people with COVID-19](#).
- For severe acute bronchospasm\* in:
  - adults and children 6 years and older**
    - salbutamol 12 puffs (100mcg per actuation) via MDI and spacer
    - ipratropium 8 puffs (21mcg per actuation) via MDI and spacer.
  - children 1–5 years old**
    - salbutamol 6 puffs
    - ipratropium 4 puffs (21mcg per actuation) via MDI and spacer.
- There are some 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, bronchiectasis and those with sputum retention.
- When nebulisers are the only appropriate therapy in a patient with suspected or confirmed respiratory viral illness (including COVID-19), administer in a negative pressure room if available, otherwise administer in a single room. Both settings require institution of contact, droplet and airborne precautions. If this is not possible, then efforts should be made to move the patient to a negative pressure or single room as soon as possible.
- 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. For more information, see [Infection Prevention and Control Novel Coronavirus 2019 \(2019-nCoV\) – Hospital setting](#) by the Clinical Excellence Commission.
- Local sites should also consider local COVID-19 screening questions and processes in the context of [local prevalence data](#) when using nebulisers.



**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.

If NIV plus nebulised therapies is required, prioritise the use of a negative pressure rooms where possible and ensure the use of contact, droplet and airborne precautions.

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