

Spacer Usage for Metered-dose Inhaler in Place of Nebuliser Therapy

Nebulisers are a high infectious risk aerosol generating device that should be avoided in order to protect staff, patients and the immediate environment.

Switching to a Spacer

Spacers are equally effective as nebulisers at treating asthma symptoms including acute exacerbation. They are used with a metered-dose inhaler (MDI) to deliver pressurised medication.

Spacers will now replace routine nebulised salbutamol (Ventolin) and ipratropium bromide (Atrovent). They are not suitable for Dry Powder Devices or soft mist devices (see chart below). Using a spacer is not an aerosol generating procedure, and is a much lower risk to staff than a nebuliser, while patients can be reassured it is just as effective .

How to safely handle the MDI and Spacer

Patients should be encouraged to assemble and handle the spacers themselves where possible.

Staff should perform hand hygiene before and after handling a spacer and/or inhaler.

Storing spacers & inhalers: Once used, the patient's spacer and any inhalers should be stored in the patient's own locked bedside drawer, NOT the WOW.



All metered dose inhalers (MDI's) can be used with a spacer device. Dry powder inhalers cannot be used with a spacer device.



How to Use a Spacer Device

Single breath method:

1. Assemble spacer (if necessary)
2. Remove inhaler cap
3. Hold inhaler upright and shake well
4. Insert inhaler upright into spacer
5. Put mouthpiece between teeth (without biting) and close lips to form good seal
6. Breathe out gently, into the spacer
7. Keep spacer horizontal and press down firmly on inhaler canister once
8. Breathe in slowly and deeply
9. Hold breath for about 5 seconds or as long as comfortable
10. While holding breath, remove spacer from mouth
11. Breathe out gently
12. Remove inhaler from spacer
13. If more than one dose is needed, repeat all steps starting from step 3, then replace inhaler cap.

Multiple breath method:

1. Assemble spacer (if necessary)
2. Remove inhaler cap
3. Hold inhaler upright and shake well
4. Insert inhaler upright into spacer
5. Put mouthpiece between teeth (without biting) and close lips to form good seal
6. Breathe out gently, into the spacer
7. Keep spacer horizontal and press down firmly on inhaler canister once
8. Breathe in and out normally for 3 or 4 breaths
9. Remove spacer from mouth
10. Breathe out gently
11. Remove inhaler from spacer
12. If more than one dose is needed, repeat all steps starting from step 3
13. Replace inhaler cap

Nebuliser therapy

If nebuliser therapy is unavoidable, it must be undertaken only after consultation with the appropriate senior medical officer. For further guidance on nebuliser therapy refer to QRG: <https://coronavirus.wh.org.au/wp-content/uploads/2021/06/Safe-use-of-respiratory-therapy-high-rates-community-transmission-V5-01.06.2021.pdf>

Important tips:

If a patient uses the 1 breath technique OR 4-breath technique is largely individual choice. Younger adult patients may prefer the 1-large breath technique, but older patients or patients coughing may find the 4-tidal breaths easier to manage.

You do NOT need to wash the spacer between drugs e.g. if ventolin & atrovent are both ordered, no washing between is necessary.

Spacers are single patient use only. They can be used for up to 12 months, and care instructions will be given by pharmacy on discharge,

For more information please look at the Clinical Guidelines <https://coronavirus.wh.org.au/clinical-guidelines/covid-19-patient-management/> and the following videos guiding administration.

How to Use A Spacer - 1 breath technique:

<https://www.youtube.com/watch?v=dIBS0IEKhqw&feature=youtu>

How to Use a spacer - 4 breaths technique:

https://www.youtube.com/watch?v=wSnR_70vwKg&feature=youtu
[be](https://www.youtube.com/watch?v=wSnR_70vwKg&feature=youtu)

How to Use a Spacer with a face mask - Very young or adults unable to use a mouth piece, e.g.dementia patients

https://www.youtube.com/watch?v=_o0M_dtxoS0&feature=youtu