

Inhaler Spacer Guidance for Care Homes

What is a spacer?

Spacers are empty tubes that are usually made of plastic. They attach to the mouthpiece of a pressurised metered dose inhaler (pMDI), these inhalers look like this (colours may vary):



Spacers **cannot** be used with dry powder inhalers or breath actuated inhalers.

The dose from the inhaler is delivered into the spacer device and the patient/resident uses the mouthpiece or a mask on the opposite end of the spacer to breathe through.

They help people get the most out of their inhaler by reducing the need for coordination between releasing the dose and breathing in, slowing the flow of the dose and increasing how much of the dose reaches the lungs. They may also help reduce side effects from inhaled corticosteroids such as oral thrush.

Which spacers are recommended in Sheffield?

1) Volumatic®

This is a large volume spacer device often used by people with asthma during asthma attacks.



2) AeroChamber Plus® Flow-Vu®

This is a smaller volume spacer device and is much easier to transport. There are a variety of spacers in the range including spacers with and without masks. Masks can often help patients/residents who may struggle to make a seal around the mouthpiece. The images here show the devices which should be used for adults.

The AeroChamber Plus Flow-Vu® has an indicator on the top of the device which can show if the person using it is inhaling through the device.



How to use a spacer device

Asthma UK have some excellent videos showing how to use spacer devices:

[How to use a spacer with a single breath and hold](#)

[How to use a spacer with tidal breathing \(multiple breath\)](#)

Important advice for care homes for spacer use and infection control

- **Spacers must NOT be cleaned and reused between residents**
- Spacer devices are licensed as single patient use items therefore each patient should have their own spacer
- If a spacer is shared between residents' legal liability for the safe performance of the product could be transferred from the manufacturer to the individual/employer
- Spacers are subject to microbial contamination and the care home may be legally liable if a resident contracted an infection due to sharing of spacer devices
- Wash each resident's spacer once a month (or sooner if visibly dirty) following the advice below
- Spacers should be replaced at least every year (sooner if any part looks damaged or any rubber parts are becoming brittle)
- If residents are attending respiratory reviews at a GP practice, they should take their own spacer with them
- Use a permanent waterproof marker pen to write the name of the resident and the date on the spacer when it is first used. Refresh this name/date when it is cleaned and if it becomes illegible following decontamination.

How to clean a spacer

- Take the spacer apart and gently clean it with warm water and a detergent, such as washing-up liquid. (Soak for 15 minutes)
- Use warm water instead of boiling water, as boiling water may damage the spacer.
- Be careful not to scrub the inside of the spacer as this might affect the way it works.
- Leave it to air-dry (without rinsing) as this helps to reduce static (an electrical charge that builds up) and prevent the medicine sticking to the inside of the spacer.
- When it's completely dry, put the spacer back together ready for use.
- Wipe the mouthpiece clean before it is used again.

Although some spacers can be cleaned in the top rack of a dishwasher, we recommend that the above advice is followed within the care home setting

Decontamination following infection

If the resident has had a chest infection the spacer will need disinfecting once the symptoms have resolved.

For Volumatic®

- Follow the detergent cleaning with disinfection with a chlorine releasing product at 1,000 parts per million (for example Milton).
- Use 50 mls Milton to 1 litre of cold water or Milton tablet (using dilution instructions on the packet)
- Please note the manufacturer states that the device can be cleaned with a sterilising solution of the type used to clean baby's bottles

For AeroChamber Plus® Flow-Vu®

- Follow the detergent cleaning with disinfection with a chlorine releasing product at 1,000 parts per million (for example Milton).
- Use 50 mls Milton to 1 litre of cold water or Milton tablet (using dilution instructions on the packet)
- These disinfectant solutions have been tested by the manufacturer; Milton, Dodie, Perasafe and Steris Revital-Ox Resert HLD High Level Disinfectant

How to store spacers

- Store the spacer in the resident's room away from dust and liquids (not the treatment room)
- Do not store spacers in a plastic bag as this will cause it to become static which reduces the effect of the asthma medicine.

References

Spacer devices for inhaled therapy: why use them, and how? Walter Vincken¹ , Mark L. Levy et al <https://openres.ersjournals.com/content/erjor/4/2/00065-2018.full.pdf>

Asthma UK <https://www.asthma.org.uk/advice/inhalers-medicines-treatments/inhalers-and-spacers/spacers/>

Information supplied by GSK and Trudell re cleaning

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Approved by FSG under delegated authority of APG: May 2022 Review Date: May 2027