NHS
Suffolk and
North East Essex
Integrated Care Board

SNEE Spacers Formulary

Every patient treated with a metered dose inhaler (MDI)should regularly use a spacer and know how to use it properly. Spacers can significantly improve the amount of medication that reaches the lungs therefore enhancing medication effectiveness.

MDIs deliver ~20% of the emitted dose to the lower airways, leaving ~80% in the oropharynx. Suboptimal or incorrect technique such as breathing in too quickly, and co-ordination of inhalation and medication release further reduces this.

Spacers improve medication delivery to the lungs in the following ways:

- medication is broken into smaller droplets when released into the spacer. This allows more medication to be inhaled.
- less medication wasted by ending up in the mouth and throat. This also reduces oral side effects.
- more time to take a deep breath/controlled inhalation after medication is released, no need to coordinate inhalation precisely with release of medication.

Face masks

- A poor seal with the face may result in impaired or variable dosage delivery. When using a facemask, the dead space between the mouth and valve of the spacer should be minimised. The mask or spacer device will require change as children grow.
- **Prescribing the wrong sized face mask can result in medication loss.**
- A face mask is required until a child can breathe reproducibly using the spacer mouthpiece or suck through a straw.
- At around ages 3–5-years old most children should be able to use a spacer with mouthpiece.
- **Only prescribe a spacer with a face mask if appropriate.**

SNEE Formulary Spacers

- Compatible with all SNEE formulary inhalers
- Easy chamber and AeroChamber are antistatic. Can be used directly from packaging
- How to use a spacer - tidal breathing technique, single breath and hold technique, with a mask for a baby or child
- Check for a tight seal with the mouthpiece or mask to maximise dose
- Easy chamber and AeroChamber make a whistling sound if breathing too fast.
- If more than 1 dose is needed, advise to take the mouthpiece or mask away from the face, wait 30 seconds to a minute and shake the inhaler again and then repeat
- Advise on rinsing the mouth out with water to help prevent side effects
- Do not store a spacer in a plastic bag as this will cause it to build up static and medication to adhere to the spacer
- Cleaning a spacer -consult manufacturer's instructions. Easy chamber and AeroChamber are dishwasher safe up to 70C on the top rack, use a gentle cycle with no heat drying.
- Replace every 12 months or sooner if appear damaged

Easy chamber – volume 175mls - **Most cost effective. First line for adults**.

- Low-resistance silicone inspiratory cross-valve. Same valve is used in infant, child and adult spacers
- Can be re-cycled in specialist centres, this service is not currently available in this area. (mask silicone, spacer body resin code 7)
- Masks are detachable

Spacer Colour	Mask and recommended age for spacer use
Red	Infant mask for 0-24 months
Yellow	Child mask for ages 2-6 years
Blue	Adult mask form age 6 years plus
Blue	Adult no mask



EasyChamber - Anti static value holding chamber

AeroChamber plus FlowVu- volume 149mls **First line for children. Second line for adults if needed**
(same price as AeroChamber Plus which will be discontinued and replaced with AeroChamber plus FlowVu)
Consider for children due to low resistance valve and Flow-Vu indicator for breath counting.

- The Flow-Vu Inhalation Indicator moves with every inhalation -provides a visual cue the patient is using their inhaler and spacer correctly and enables breath counting. Useful for parents who are giving an inhaler to their children.
- Low resistance valve in all spacers. Youth and child spacers, the low resistance valve is thinner (0.3mm compared to 0.38mm in adult spacer) so more responsive.
- Masks are not detachable
- Non-recyclable currently.

Spacer Colour	Mask and recommended age for spacer use
Orange	Infant - small mask 0-18 months. Thinner low inhalation resistance valve
Yellow	Child - medium mask 1-5 years. Thinner low inhalation resistance valve
Green	Youth - 5 years plus no mask. Thinner low inhalation resistance valve
Blue	Adult - no mask
Purple	Adult small mask. Can be used for child 5 years plus unable to use a mouthpiece
Blue	Adult large mask



Volumatic (large volume spacer)- volume 837.51mls – **second line for children requiring a larger volume spacer**

- Available with and without a paediatric mask. No adult mask available.
- Paediatric mask is detachable
- Wash before initial use. Not suitable for dishwashers. Please refer to manufacturer instruction regarding cleaning Volumatic Adult Spacer - Patient Information Leaflet (PIL) - (emc) | 9726
- The mouthpiece valve will 'click' or rattle as the patient breathes in and out. This indicates the spacer is being used correctly.



References

Spacer devices for inhaled therapy: why use them, and how? - PMC

Cambridge and Peterborough Spacer Devices for Pressurised Metered Dose Inhalers – Prescribing Support Document