

Inhaler Spacer Devices

KEY MESSAGE: use spacers with pressurised Metered Dose Inhalers (pMDI) ^{1,2}:

NB NICE NG80 resource '[Asthma inhalers and climate change](#)' now encourages patients aged 12 years and over to **consider** using dry powder inhalers (which do **not** require the use of spacers)*






- In young children: a pMDI + spacer is the preferred method of delivery for β_2 agonists and inhaled corticosteroids (ICS)
 - Use a face mask until the child can breathe reproducibly using the spacer mouthpiece
- Children aged 5-12 and adults: For delivery of ICS a pMDI + spacer is as effective as other inhaler devices, **but**
 - Device choice should be based on patient preference and assessment of correct use
 - *For older children and adults lower carbon footprint devices should be considered
- **Ideally use a spacer for ALL patients prescribed an ICS via a pMDI but especially for those on high dose ICS**
- Use a pMDI + spacer (up to 10 puffs) instead of a nebuliser for treatment with beta 2-agonists in children and adults with mild to moderate exacerbations of asthma. It is important to use the same spacer device when titrating doses according to clinical response.
 - A change in spacer may alter the effective dose delivered.
 - Remember to check spacer compatibility if changing inhalers
- **For children – at every review check spacer / mask to ensure age appropriate**

What are the benefits of using a spacer with a pMDI?

- **More effective treatment:** better delivery directly into the lungs, avoids potential increased systemic side effects following swallowing, **may allow a lower dose of ICS to be effective in controlling asthma**
- **Reduces problems with co-ordination / poor inhaler technique** e.g., for the elderly and children
- Useful for treatment of first attacks of wheezing in patients who have **NOT** used inhalers before.
- Useful for administration of bronchodilator when **testing reversibility in the surgery** to establish the diagnosis of asthma. *NB disposable single use device available (DispozABLE®)*
- **Reduced prescribing costs** if improved delivery to the lungs results in a step down of ICS dose.

Use and care of spacers ^{1,3}

- Spacers should be **compatible with the pMDI** being used. See table overleaf for formulary spacers
- **Ensure the patient knows how to use, and care for, their spacer correctly.**
- Administer the drug by repeated **single** actuations into the spacer, **each followed by inhalation.**
 - Ensure the inhaler is shaken before each actuation and wait 30 seconds if two doses have been prescribed.
- Ensure **minimal delay** between pMDI actuation and inhalation.
- **Tidal breathing** (five breaths) is as effective as single deep breaths.
- **Clean monthly (see overleaf)** as per BTS¹. Some manufacturers' state weekly but this may increase static charge (unless antistatic spacer), and affect performance
- Plastic spacers should be **replaced at least every 12 months**, but some may need changing at six months. **Replacement, via acute prescription, could be linked to review appointments**

Local respiratory formulary spacer brand options	Easychamber®	A2A®	Space Chamber Plus®	Aerochamber Plus®		Volumatic®
	Antistatic		Standard & Antistatic	Standard & Flow-vu Antistatic		
<p><i>Click spacer names for links for further information / videos.</i></p> <p>Additional spacer information at www.asthmaandlung.org.uk</p>						
Cost (Drug Tariff Jan 24) Without mask	£3.98	£4.15	£4.34 / £4.53	£5.21 / £5.22 5+ years or adult	£3.88	
With mask	£6.53 - £6.59 Infant / child / adult	£6.68 Small / medium	£7.10 / £7.58 Small / medium / large	£8.69 / £8.72 Infant/child /adult	£6.83 Paediatric only	
Volume & size	Small 175ml 13.8cm x 5cm	Small 210ml 15 x 6.5cm (open)	Small 230ml or 160ml 18.5cm or 14.5cm	Small 149ml 14.5 x 4.6cm		Large volume 750ml 29.7cm x 17cm
Valve details	Visible valve to show movement when appropriate inhalation	Visible valve to show movement when appropriate inhalation	Visible valve to show movement when appropriate inhalation	-	Visual indicator above to show if correct use	Click / rattle on inhalation
*Compatibility (Jan 24) At least one of the following: Named in pMDI product licence ³ MIMs ⁴ listed universal (group a) Rightbreathe ⁵ listed compatible, or confirmed via spacer manufacturer	*All pressurised MDIs	*All pressurised MDIs	*All pressurised MDIs	*All pressurised MDIs		*All pressurised MDIs <i>except⁵ Airomir, Alvesco, Luforbec, Qvar, Symbicort pMDI</i>
Wash before 1st use	Not required	✓	✓	Not required	✓	Not required
Replacement	At least once every 12 months	At least once every 12 months	At least once every 12 months		At least once every 12 months	
Dishwasher safe**	X	X	✓		X	✓
Additional features	Masks are detachable, allowing for use without a mask if preferred. Whistles if inhaling too quickly	Collapsible & inhaler fits inside spacer. Pull to open, twist to close	Two sizes available		Whistles if inhaling too quickly	
**Wash spacers ONCE A MONTH¹ in mild detergent (washing up liquid), do not rinse, allow to drip dry in air (using a cloth can increase static charge). Wipe mouthpiece clean of detergent before use. Some are dishwasher safe (check instructions for maximum safe temperature)						

References:

1. British Thoracic Society, Scottish Intercollegiate Guidelines Network. [BTS /SIGN Guideline for the management of asthma 2019](#). Accessed 10.01.24.
2. NICE NG115 Chronic Obstructive Pulmonary Disease in over 16s. Accessed at <https://www.nice.org.uk/guidance/ng115> on 10.01.24.
3. Asthma UK. Accessed at www.asthma.org.uk/advice/inhalers-medicines-treatments/inhalers-and-spacers/spacers/ on 10.01.24.
4. Mims table on asthma and COPD preparations and compatible devices. Accessed at www.mims.co.uk/ 10.01.24.
5. Rightbreathe. Accessed at <https://www.rightbreathe.com> 10.01.24.

Title	KEY MESSAGES Bulletin 18 – Inhaler Spacer Devices
Description of policy	To inform healthcare professionals
Scope	Prescribing information related to the use of spacer devices
Prepared by	Prescribing & Medicines Management Team. SM.JC.MC
Evidence base / Legislation	Level of Evidence: <i>A. based on national research-based evidence and is considered best evidence</i> B. mix of national and local consensus <i>C. based on local good practice and consensus in the absence of national research based information.</i>
Dissemination	Is there any reason why any part of this document should not be available on the public web site? <input type="checkbox"/> Yes / No <input checked="" type="checkbox"/>
Approved by	NHSN&W Prescribing Reference Group (6/12/12). V2.0 Prescribing Senior Team 20.2.14, V2.1 19.1.16, v2.3 17.3.18 v3.1 14.12.22
Authorised by	NHSN&W Drug & Therapeutics Group (20.12.12) V2.0 Prescribing Senior Team 20.2.14, v2.1 19.1.16, v3.1 14.12.22 Respiratory Medicines Optimisation Working Group V3.2 13.2.24
Review date and by whom	Medicines Optimisation Team February 2026
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Version Control (To be completed by policy owner)

Version	Date	Author	Status	Comment
0.1	5/11/12	Prescribing & Medicines Management Team (SM.JC)	Draft	
0.2	13/11/12	Prescribing & Medicines Management Team (SM.JC.MC)	Draft	Updated with comments from Network Group.
0.3	10/12/12	Prescribing & Medicines Management Team (SM.JC.MC)	Draft	Updated with comments from Prescribing Reference Group.
1.0	7/1/13	Prescribing & Medicines Management Team (SM.JC.MC)	FINAL	Amendment to table 'which inhalers fit which spacers' – Clenil entry. Drug Tariff prices checked in line with Jan 12 prices.
1.1	21/1/14	Prescribing & Medicines Management Team (MC)	Draft	Transferred to new format. Slight Syntax changes. Costs updated. A2A added to spacer table. Salbutamol inh removed-discontinued. Spacer compatibility table checked, amended where information available and updated with A2A and new ref to Mims added. Ratified by Prescribing Senior Team 20.2.14 with minor wording change for bullet point 3.
2.0	24.2.14	Prescribing & Medicines Management Team (MC)	FINAL	
2.1	22.12.15	Prescribing & Medicines Management Team (SM,MC)	update	New logo. Inhaler and spacer info updated. Rewording of key message. Front page divided into 3 boxes to clarify messages. Addition of ref to NICE CG 101 COPD as spacers used in COPD and asthma. Reduced no. of spacer bullet points to include those in BTS only. Addition of info to shake inhaler and wait 30sec between actuations. Table reformatted to include vol. of spacer and cost. Also just compatible or not with Mims as ref. Addition of haleraid to table. 2 links removed as no longer work / out of date. References updated. Ratified by Senior Prescribing Team 19.1.16
2.2	25.1.18	Prescribing & Medicines Management Team (SM, EK)	update	Updated spacer device table including new costs and dishwasher safety (manufacturers contacted). References checked and updated. Some minor wording changes.
2.3	22.3.18	Prescribing & Medicines Management Team (SM) following discussion at Senior Team meeting		Aimed to have fewer spacers on the list – is for what fits where. Amended to “commonly used” devices in line the removal of less common/ more expensive.

				Cost-effective items highlighted as Green .Which devices can transport inhalers updated. Dishwasher safe use updated – Volumatic confirmed by email, do not put in dishwasher, cannot guarantee efficacy. List approved as per agreed changes
2.4	18.10.18	Medicines Optimisation Team (MC)	Draft update	Minor syntax changes to create space. Simplified key message just to use spacers. Added potential to step down along with reduced cost statement. Statement to use spacers with high dose ICS, amended to add ideally ALL patients on ICS (DF). 2 nd page changed to include just formulary spacer brands with increased information per spacer.
3.0	19.11.18	Medicines Optimisation Team (MC)	FINAL	
3.1	14.12.22	Medicines Optimisation Team (MC)	update	Logos updated. Updated with new guidance to consider lower carbon footprint inhalers. Haleraid information removed as discontinued. Reminders added to check appropriate spacer being used as children get older and if inhalers are changed. Costs updated
3.2	10.01.24	Medicines Optimisation Team (MC)	update	Add Easychamber as additional antistatic cost effective option. Links updated; costs updated.