

# Spacer Support for Pharmacists

**This guide has been created to support pharmacists' conversations with patients prescribed a pMDI who are using or may benefit from using a spacer.**

pMDI, pressurised metered-dose inhaler.

UK AC 061t 0421 | Date of preparation: April 2021

**Developed by Temple Consultancy Ltd.,  
funded by sponsorship from Trudell Medical UK Ltd.**

Trudell Medical UK Limited, Grove House,  
Lutyens Close, Basingstoke, Hampshire. RG24 8AG.  
Tel 01256 338 400 email: [info@trudellmedical.co.uk](mailto:info@trudellmedical.co.uk)

# Supporting your respiratory patients who require a pMDI

## The importance of inhaler technique and the NHS Long-Term Plan<sup>1</sup>

Inhaler technique is as important as the drug prescribed.<sup>2</sup> Incorrect use can result in sub-optimal treatment, poor disease control and increase the risk of exacerbations and admissions.<sup>1,2</sup> However, inhaler errors are common, as **up to 80%** of asthma patients in primary care have incorrect inhaler technique.<sup>3</sup>

The impact of pMDIs on the environment is also a challenge.<sup>4</sup> As part of their Long-Term Plan, the NHS is committed to reducing their carbon emissions by over 50% by 2025.<sup>1</sup> Whilst new environmentally friendly propellant gases will be used in some pMDIs in the near future, currently pMDIs use hydrofluorocarbons (HFC) as a propellant. HFCs are known contributors to carbon emissions,<sup>5</sup> and in the UK, up to 70% of inhalers prescribed for patients are pMDIs.<sup>4</sup> The treatment is the drug with the device,<sup>4</sup> so it is vital that pharmacists help to ensure respiratory patients' disease is well controlled by using their **prescribed medication optimally**.<sup>1,4,5</sup>

Although there is a focus on the environmental impact of inhalers, prescribing the right device to the right patient, which they know how to use, remains key to good control.<sup>6</sup> DPIs do not use HFC propellant gases and so have a lower carbon footprint than pMDIs, but certain patients such as the elderly, children or those having an asthma attack may not have the inspiratory ability to actuate a DPI and may struggle to use it.<sup>6</sup> So while environmental goals are important, doing the right thing clinically for individual patients must remain a priority.<sup>7</sup>

By educating your patients to use their inhaler correctly and recommending the use of a spacer to help improve their technique, you can support your patients to reduce their use of their SABA reliever inhaler and align to the NHS' commitment.<sup>1</sup> For patients who aren't already using a pMDI, checking whether they might benefit from using a pMDI and spacer as part of their review could also help to improve their control.<sup>1-3</sup>

DPI, dry power inhaler; pMDI, pressurised metered-dose inhaler; SABA, short-acting beta-2 agonist.

### References:

1. NHS. The NHS Long Term Plan. Available from: <https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/>. Last accessed April 2021.
2. Chrystyn H, *et al*. Device errors in Asthma and COPD: systematic literature review and meta-analysis. *Prim Care Respir Med* 2017;27(1):22:1–10. doi: 10.1038/s41533-017-0016-z.
3. GINA. Global Strategy for Asthma Management and Prevention (Updated 2020). Available from: <https://ginasthma.org/gina-reports/>. Last accessed April 2021.
4. DeWeerd S. The environmental concerns driving another inhaler makeover. *Nature* 2020;581:S14–S17. doi:10.1038/d41586-020-01377-7.
5. NHS. Delivering a 'Net Zero' National Health Service. Available from: <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>. Last accessed April 2021.
6. Health Awareness. What you need to know to have the right inhaler for your needs. Tony Greenway. December 5 2019. Available from: <https://www.healthawareness.co.uk/respiratory/what-you-need-to-know-to-have-the-right-inhaler-for-your-needs/>. Last accessed April 2021.
7. PCRS. PCRS Greener Respiratory Healthcare That is Kinder to the Environment. White Paper and Call to Action. 18 November 2020. Available from: <https://www.pcrs-uk.org/resource/greener-healthcare>. Last accessed April 2021.

# Supporting your respiratory patients who require a pMDI

## How COVID-19 has compounded the problem of poor control of lung conditions<sup>1</sup>

In the UK, **5.4 million** people are currently receiving treatment for asthma,<sup>2</sup> whilst an estimated **1.2 million** people are living with diagnosed COPD.<sup>3</sup> Approximately **40–60%** of COPD and up to **80%** of asthma exacerbations are due to viral infections, including the common cold.<sup>4,5</sup>

During the COVID-19 pandemic, restrictions in movement and social contact resulted in reduced exposure and transmission of other respiratory viruses.<sup>6</sup> But, following easing of societal restrictions in August 2020, cases of the common cold per 100,000 people increased by **21%** in one week.<sup>7</sup> If cases of the common cold increase as restrictions ease, respiratory exacerbations could add to NHS winter pressures.

The pandemic has disrupted regular practice, with fewer-face-to-face consultations, missed asthma reviews and remote consultations making it much harder to check if your patients' lung condition is well controlled.<sup>1,8</sup> In the current climate, patients may feel nervous about seeking medical advice, as indicated in a recent Asthma UK survey,<sup>\*</sup> which reported that **1 in 3** asthma patients have delayed or avoided visiting the GP or hospital when unwell.<sup>1</sup>

In a recently published study looking at respiratory admissions in a UK hospital from 23rd March to 1st June 2020, 50 patients with COPD were interviewed:<sup>9</sup>



**46%** reported reduction in daily exercise, **57%** of these reported their COPD control was getting worse



**48%** COPD patients reported increased use of 'reliever' inhalers



**22%** of COPD patients reported that they felt as though they were exacerbating at least once, but did not seek medical help

COPD, chronic obstructive pulmonary disease; pMDI, pressurised metered-dose inhaler.

<sup>\*</sup>This Asthma UK survey was carried out in July 2020.<sup>1</sup>

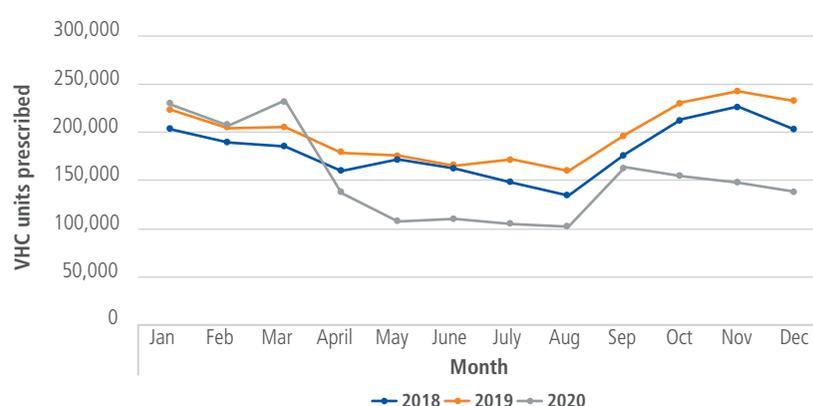
### References:

1. Health Awareness. More use of spacers could improve outcomes. Linda Whitney. November 24 2020. Available from: <https://www.healthawareness.co.uk/respiratory/more-use-of-spacers-could-improve-outcomes/#>. Last accessed April 2021.
2. Asthma UK. Asthma facts and statistics. 2021. Available from: <https://www.asthma.org.uk/about/media/facts-and-statistics/>. Last accessed April 2021.
3. British Lung Foundation. Chronic obstructive pulmonary disease (COPD) statistics. 2021. Available from: <https://statistics.blf.org.uk/copd>. Last accessed April 2021.
4. Johnston SL. Overview of virus-induced airway disease. *Proc Am Thorac Soc* 2005;2(2):150–156.
5. Halpin DMG, et al. Inhaled corticosteroids and COVID-19: a systematic review and clinical perspective. *Eur Respir J* 2020;55(5):2001009. doi.org/10.1183/13993003.01009–2020.
6. Davies GA, et al. Impact of COVID-19 lockdown on emergency asthma admissions and deaths: national interrupted time series analyses for Scotland and Wales. *Thorax* 2021;0:1–7. doi:10.1136/thoraxjnl-2020-21638.
7. Iacobucci G. Covid lockdown: England sees fewer cases of colds, flu, and bronchitis. *BMJ* 2020;370:m3182.
8. NICE guideline [NG166]. COVID-19 rapid guideline: severe asthma. April 2020. Available from: <https://www.nice.org.uk/guidance/ng166>. Last accessed April 2021.
9. Sykes DL, et al. Impact of COVID-19 on COPD and asthma admissions, and the pandemic from a patient's perspective. *ERJ Open Res* 2021;7:00822–2020.

# Supporting your respiratory patients who require a pMDI

## Every spacer missed is a patient at risk

In addition to a reduction in basic asthma care and fewer reviews, the number of spacers prescribed has substantially dropped in 2020 vs 2018 and 2019.<sup>1</sup>



Correct inhaler technique is key to good control of lung conditions, and for patients prescribed pMDIs, spacers may help poor technique,<sup>2,3</sup> as highlighted in a systematic review which found only **52%** of patients using **pMDI with a spacer** made at least one error compared with **over 85%** using **pMDI alone**.<sup>3</sup>

Spacers can help to improve control by increasing the amount of medication delivered to the lungs compared with using an inhaler alone,<sup>4,5</sup> as well as reduce the risk of exacerbations.<sup>2</sup>

For times when you cannot confirm your patient's technique, prescribing a spacer may help to improve their control of their lung condition.<sup>4</sup>

pMDI, pressurised metered-dose inhaler.

### References:

1. GPrX. Data on File TM-UK 3 years monthly VHC units UK Jan 2018–Dec 2020.
2. Chrystyn H, *et al.* Device errors in Asthma and COPD: systematic literature review and meta-analysis. *Prim Care Respir Med* 2017;27(1):22:1–10. doi: 10.1038/s41533-017-0016-z.
3. Levy ML, *et al.* Asthma patients' inability to use a pressurised metered-dose inhaler (pMDI) correctly correlates with poor Asthma control as defined by the global initiative for Asthma (GINA) strategy: a retrospective analysis. *Prim Care Respir J* 2013;22(4):406–11. doi: 10.4104/pcrj.2013.00084.
4. Prabhakaran S, *et al.* Response to albuterol MDI delivered through an anti-static chamber during nocturnal bronchospasm. *Respir Care* 2012;57:1291–6. doi: 10.4187/respcare.01572.
5. Gillen M, *et al.* Effect of a spacer on total systemic and lung bioavailability in healthy volunteers and in vitro performance of the Symbicort® (budesonide/formoterol) pressurized metered dose inhaler. *Pulmonary and Therapeutics* 2018;52:7–17. doi: 10.1016/j.pupt.2018.08.001.

# Supporting your respiratory patients who require a pMDI

## How you can help to improve your patients' technique<sup>1</sup>

As a member of the extended primary care team, you play a vital role in improving outcomes for your patients.<sup>1</sup> You can help to improve your patients' adherence and control of their lung condition by identifying at-risk patients to determine whether they could benefit from using a spacer, as well as educating them on how to use it correctly.<sup>2</sup>

**Use the materials in this pack to help you structure your conversations about spacers with patients when dispensing their prescriptions for pMDIs.**



### This pack includes:

- Pharmacy spacer checklist
- Spacer Opinion Questionnaire (SpOQ) for patients
- Spacer support pack evaluation form
- Spacer Patient Information Leaflet (SPIL)
- Dear Dr letter
- Referral slip
- Spacer Guardian pledge cards

This pack includes Pharmacy spacer checklists of different lengths to help you best utilise the time you have available to talk to your patients about spacers after they have completed the SpOQ:

- If you have 30–60 seconds, discuss the use of spacers
- If you have 2–5 minutes, discuss the use of spacers, share educational links and consider the appropriate spacer for their pMDI
- If you have 10 minutes, carry out a full inhaler technique/spacer review

pMDI, pressurised metered-dose inhaler.

#### References:

**1.** Attar-Zadeh D. A team approach to getting the basics right in asthma management. *Practice Nurse* 2020;50(2):10–13. **2.** Pharmaceutical Services Negotiating Committee. New Medicine Service (NMS) – Patient Information Leaflet. Available from: [https://psnc.org.uk/wp-content/uploads/2020/09/NMS\\_patient\\_leaflet\\_with\\_HoC\\_logo\\_for\\_website-2.pdf](https://psnc.org.uk/wp-content/uploads/2020/09/NMS_patient_leaflet_with_HoC_logo_for_website-2.pdf). Last accessed April 2021.

# How to become a Spacer Guardian

Work your way down the flow chart, depending on how much time you have

**30–60 seconds**  
Be alert and refer

**2–5 minutes**  
Be alert, refer and support

Carry out the same steps as the 30–60 second review, plus this additional support

**10 minutes**  
Be alert, refer and coach

Carry out the same steps as the 30–60 second and 2–5 minute reviews, plus this additional coaching

