

Sustainable Respiratory Care Audit – information for participating healthcare professionals

We invite you to participate in a national quality improvement project on sustainable respiratory care. This project will bring together healthcare professionals across the UK to audit the prescription and use of inhalers and explore the applicability of questions to patients about their inhaler preferences.

By joining this national project, you will have opportunity to:

- Enhance your knowledge of inhaler prescribing guidelines
- Identify opportunities to improve the quality respiratory care in your healthcare facility
- Be supported to gather baseline data which can be used to inform Sustainable Quality Improvement
- Learn how practice in your area compares to national standards
- Take practical action in to promote sustainable healthcare and progress towards a net-zero NHS
- Collaborate with colleagues from around the country
- Present the results of your audit and the national audit at local, regional and/or national forums
- Be acknowledged on any publication of the findings of this project

Background

“Sustainability can be considered a domain of quality in healthcare, extending the responsibility of health services to patients not just of today but of the future.”¹ Quality improvement projects can incorporate measurement and action to improve the environmental and social impacts of healthcare, as well as healthcare processes and health outcomes.

Selecting appropriate inhaler devices and improving inhaler technique are examples of interventions which have the potential to reduce the carbon footprint of healthcare, while maintaining quality of care and offering financial savings at the same time. Commonly used inhalers include Metered Dose Inhalers (MDIs), which contain hydrofluoroalkane (HFA), and

¹ "Sustainability in quality improvement: redefining value - NCBI - NIH."
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6502556/>. Accessed 6 Aug. 2021.

Dry Powder Inhalers (DPI) which do not contain HFA. DPIs have a much lower carbon footprint than MDIs; the carbon footprints of MDIs are 10-37 times higher than those of DPIs. Based on 2017 data, researchers have calculated that savings of £8.2 million annually and 58 kilotonnes of carbon dioxide equivalent emissions could be made by replacing one in ten MDIs in England with the cheapest equivalent DPIs.²

While not all patients have sufficient lung function to use a DPI effectively, many patients will receive more effective dosing of inhaled medications using a DPI than using an MDI and prefer not to carry a spacer. MDIs should always be used with a spacer. To improve the control of respiratory conditions and reduce exacerbations, as well as to reduce medicines wastage, it is important to review patients' inhalers and technique and consider switching a patient's inhalers where appropriate.

Aims

This project aims to:

- Audit whether inhaler technique has been checked regularly and effectively in patients who are prescribed inhalers
- Apply questions about patients' attitudes and preferences towards inhalers to operationalise the approach outlined by NICE (Asthma patient decision aid)
- Pilot, improve and validate the 'inhaler audit proforma' tool
- Establish baseline from which to improve the quality and environmental sustainability of respiratory care in the NHS
- Guide strategies to inform patients about inhaler and respiratory disease management options
- Engage and educate healthcare professionals from around the UK on sustainable respiratory care

A secondary benefit will be checking of inhaler prescriptions for all patients involved.

Who is invited to collaborate on this project?

- Healthcare professionals working in any secondary or tertiary NHS organisation are invited to undertake this project in your healthcare facility
- All healthcare professionals working in secondary care are invited to apply, including physician associates, pharmacists, respiratory nurses, physiotherapists and doctors

² "Costs of switching to low global warming potential inhalers. An"
<https://bmjopen.bmj.com/content/9/10/e028763>. Accessed 6 Aug. 2021.

- The minimum requirement for you to take part is to have a team of two people, including one junior member of the team (e.g. junior doctor, ward nurse, physiotherapist or health professional in training) and one senior respiratory clinician (consultant, specialist nurse or specialist registrar). A senior member of the team is essential to provide clinical oversight.
- The steering group will hold two online one-hour introductory sessions for participating teams. One of the team members must attend the first introductory session, which will be held on 16th September 2021 13:00-14:00 and repeated at 19:00-20:00 (attendance is only required only at one of the two sessions). This meeting will introduce participants to the project aims and project plan and allow participants to raise any questions.
- After the first meeting, you will be asked to submit an application to your local Caldicott guardian to ensure that you have approval to carry out the audit
- A second one-hour meeting will be held a week later (23rd September 2021 13:00-14:00 and repeated at 19:00-20:00). At this meeting, we will collaboratively review and undertake any revisions to the inhaler audit proforma to ensure that it is agreed by all teams and implementable by all teams. Any team who is not able to attend may send comments by email to be addressed at this meeting.
- Over a two-month period (October and November 2021), teams will be asked to carry out the audit aiming to involve at least 20 patients by interviewing them using the proforma (see end of this document).
- Teams will be provided with an excel form template in which to enter the results. The completed excel spreadsheet must be sent back to the coordinating team for analysis.
- Two feedback seminars will be hosted after data collection and initial analysis has been completed.
- Findings will be compiled and written up for publication in a journal and presentation at relevant local, regional and national forums by participating healthcare professionals.

Required commitment

- There is no funding for this project and you are not required to access any funding locally. Health professional time will be required.
- Participating health professionals will be expected as a minimum to:
 - Undertake 20 questionnaires and upload the questionnaire results into a spreadsheet. Each questionnaire takes about 5 minutes to complete. (2h)

- Attend two planning meetings (or one planning meeting and provide written feedback in advance of the second meeting) (1.5h), submit a Caldicott application using our guidance (0.5h) and one feedback meeting at the end of the project. (1h)
- The minimum time commitment is estimated to be 5 hours over three months, expected time commitment approximately 6 hours over three months.
- There will be opportunities for further collaboration for any interested participants.

What will you get out of participating?

- All sites who submit data from 20 questionnaires will be acknowledged in any presentation
- We will support all teams to present their data locally and implement improvements and changes in their settings

Risks

- This project will require patient contact, and therefore appropriate PPE may have to be used in line with hospital guidelines. This project is not to be carried out in aerosol generating procedure areas.

Scope

At the moment this project is limited to secondary and tertiary care settings within the NHS. We may repeat the project in primary care at a later date.

Timescale

- Participating organisations will be recruited during August and September 2021
- The two initial meetings will be held on the 16th and 23rd September 2021. These meetings will be run twice from 1-2pm and from 7-8pm on both days.
- The survey should be undertaken between during October and early November 2021.
- Analysis and dissemination of results will take place during December 2021.

Inhaler Audit Pro-forma

Date		Location (Ward & Hospital)	
Hospital no.	THIS INFORMATION WILL	Patient confused* Y/N	

*Confused is defined as a nurse who is looking after and knows the patient says that they are not able to reliably answer the questions, OR AMTS < 8.

If the patient is confused, they are not eligible for inclusion in this audit, but you may wish to address some of the elements below in order to improve the quality of their care.

From patient notes

Patient's main respiratory complaint as recorded on clerking, patient notes or a recent letter:

Asthma	COPD	Other – please give details

Patient's prescribed inhalers as recorded on e-record (prescribed on medications for this admission)

Inhalers that the patient is prescribed (including brand name)

At patient bedside

- 1) Can I check which inhalers you are on?

Inhalers at patient's bedside (including brand name and number of each type)
--

--

A. Inhaler technique (DPI) – *hold up relevant inhaler*

2) How confident are you with your inhaler technique for this inhaler?

Very confident	Confident	Somewhat confident	Not at all confident

3) Has a healthcare professional demonstrated good inhaler technique for this inhaler to you before?

Yes	No	Unsure

4) Please demonstrate your inhaler technique

	Demonstrated correctly	Not demonstrated correctly
Prime the inhaler		
Empty lungs		
Positioning (sat up straight, head up)		
Mouth seal & deep inhale		

Hold breath 10 seconds		
------------------------	--	--

B. Replacement (DPI)

5) Do you know when your inhaler needs replacing?

Yes	No

If yes, how?

--

6) Do you get a new inhaler on every repeat prescription? – *here we are trying to capture whether there are excess inhalers being ordered on a repeat basis without the prior inhaler having been used up.*

Yes	No	Unsure

C. Inhaler technique (MDI) – *hold up relevant inhaler*

7) How confident are you with your inhaler technique for this inhaler?

Very confident	Confident	Somewhat confident	Not at all confident

8) Has a healthcare professional demonstrated good inhaler technique for this inhaler to you before?

Yes	No	Unsure

9) Please demonstrate your inhaler technique

	Demonstrated correctly	Not demonstrated correctly
Attach spacer		
Empty lungs		
Positioning (sat up straight, head up)		
Mouth seal and deep inhale		
<i>Other comments</i>		

D. Replacement (MDI)

10) Do you know when your inhaler needs replacing?

Yes	No

If yes, how?

--

11) Do you get a new inhaler on every repeat prescription?

Yes	No	Unsure

E. Recycling (relates to all inhalers)

12) Do you take your inhaler to your local pharmacy for recycling when it is finished?

Yes	No

13) Did you know that your used inhalers cannot be recycled in the local council recycling bin?

Yes	No

F. Inhaler Preferences:

14) When starting a new inhaler, how important is it to you that you are able to use it easily?

Very important	Important	Somewhat important	Not important

15) How important is it that you are able to tell how many doses are left in your inhaler?

Very important	Important	Somewhat important	Not important

16) Do you use a spacer? (If no, skip to next question)

a. If you use a spacer, how inconvenient is it to have to clean your spacer frequently?

Very Inconvenient	Inconvenient	Somewhat inconvenient	Not inconvenient

b. If you use a spacer, how inconvenient is it to have to carry the spacer around?

Very Inconvenient	Inconvenient	Somewhat inconvenient	Not inconvenient

17) Would you consider changing to a different inhaler if there was one available that was easier to use?

Yes	No

18) Would you consider changing to a different inhaler if there was one available that was more effective?

Yes	No

19) If there was an inhaler that was better for the planet, with a lower carbon footprint, but was also just as effective and easy to use, would you consider changing to it?

Yes	No	Don't understand the question

20) Would you like an opportunity to discuss which inhalers you are on and your inhaler technique with a clinician in the next 3 months?

I have an appointment for inhaler review in the next 3 months → I plan to attend this appointment	I have an appointment in over 3 months' time → I would like an earlier inhaler review if possible	I have an appointment in over 3 months' time which I am happy with → I do not want an earlier review	I do not have an appointment for inhaler review → I would like an inhaler review to be booked for me	I do not have an appointment for inhaler review or I have an appointment but I do not plan to attend