Benefits of a comprehensive COPD inhaler identification aid

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A vast number of inhalers are available to treat COPD, and it is extremely difficult for both healthcare professionals and patients to keep track of them all. Karen Lee and Kamal Ibrahim from Bolton Hospital NHS Foundation Trust have therefore helped to develop a comprehensive COPD inhaler identification poster and here they discuss its usefulness in a range of clinical settings.

Around 835,000 people in England are registered as having chronic obstructive pulmonary disease (COPD). It is a diffuse lung disease characterised by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and is associated with an abnormal inflammatory response of the lungs to noxious particles or gases as well as systemic manifestations. Appropriate pharmacological therapy can reduce COPD symptoms, reduce the frequency and severity of exacerbations, and improve health status and exercise tolerance.

Inhaled medication is the mainstay of treatment for COPD. A vast number of inhalers exist to treat COPD, including single-agent and combination inhalers, which are available in different strengths, shapes and colours, as well as multiple device types, each requiring a specific inhaler technique. It is therefore extremely difficult for both healthcare professionals and patients to keep track of the array of inhalers available.

Patients are allocated an average time slot of 10 minutes in a respiratory clinic or GP surgery. Each patient may be on several inhalers as part of their COPD maintenance therapy, but often do not bring them in and struggle to describe their inhalers to the practitioner. Without accessing the patient’s medical record, which is not always up-to-date, it is difficult for the clinician to establish current inhaled treatment. Ultimately, this leads to frustration from both sides and valuable time wasted, which would otherwise be better used for patient assessment and counseling. Moreover, without knowing current treatment, it is hard for the prescriber to make a decision on therapy optimisation with any degree of confidence.
COPD inhaler poster

At Bolton Hospital NHS Foundation Trust, we have developed a COPD inhaler identification aid, in the form of a double-sided poster (see Figures 1–3), which is designed to be used in a range of clinical settings such as hospital wards or outpatient clinics. The identification aid serves a dual purpose:
• To help patients with COPD quickly and correctly identify their inhalers to the clinician
• To act as a reference point for the clinician for dosage and device details, etc. for prescribing purposes.

One side of the poster (see Figure 2) provides a visual representation of the majority of commonly used inhalers to allow patients to quickly and correctly identify them to the practitioner, which is especially useful when they present to hospital or clinic without their inhalers to hand. The patient can also use this side of the poster to point out inhalers they have used in the past, including the ones that worked well or were not tolerated.

Conversely, the practitioner can use it to indicate to the patient proposed changes to their inhaled therapy; for instance, to show the patient the inhalers they intend to prescribe and those that the patient should discontinue using. This allows a better explanation to the patient, provides them with a better understanding of the changes made to therapy and shows them what to expect before collecting their prescription from the pharmacy. We expect that this will improve patient experience, adherence and thereby clinical outcomes.

An effective resource

An audit was carried out at Bolton Hospital COPD clinic to assess the efficacy of the identification aid. Thirty-five patients were asked to point out their inhalers using the aid, which were documented and then verified using the patients’ medical records. As shown in Figure 3, of the 80 inhalers assessed, 77 (96%) were identified accurately by medication and device. One patient incorrectly identified a Fostair metered-dose inhaler (MDI) as a Seretide MDI.

Figure 2. The COPD inhaler identification aid poster. Credit: Andrew Powell and the Medical Illustration Department, Bolton Hospital

Figure 3. Percentage of inhalers correctly identified using the inhaler identification aid
and two patients reported a salbutamol MDI instead of a salbutamol Easi-Breathe.

In light of the large range of inhaler options available and an ever-growing number of new inhalers entering the market, healthcare professionals, whether they be doctors, nurses or pharmacists, in primary and secondary care alike, frequently find it difficult to keep up with the pace of change of the different types of inhalers, and their active ingredients, strengths and doses.

Lack of understanding generates a potential for error when writing or checking prescriptions or administering medication. Choosing the optimal inhaler is essential when treating COPD patients; from a prescribing viewpoint, there is a risk that patients are not offered the best treatment option. Furthermore, the resources currently available are not user-friendly, nor easily accessible. There is a clear need for concise and relevant information to be presented in one place.

The other side of the poster (see Figure 4) lists all the inhalers used in COPD available at Bolton Hospital, based on national and local guidelines, as a reference for clinicians. The inhalers are separated into tables according to their pharmacological category; for example, short-acting beta-agonists are grouped together, as are long-acting beta-agonists, etc. Generic and brand name, strength, dosing information including licensing, and availability are all included alongside a picture of each inhaler; this is intended to aid clinicians in the prescribing process. Device type is also specified to aid in the selection of an inhaler that the patient will be able to use effectively, thereby improving patient adherence.

The posters have been distributed throughout Bolton Hospital, and are widely used on the medical wards, in particular the emergency department, medical admissions unit and respiratory specialist wards. They have also been offered for circulation to general practice surgeries across Manchester. A small handheld version of the poster is available for ease of access and convenience.

Positive feedback
So far, we have received extremely positive feedback; the poster is highly commended by Bolton’s respiratory governance group and 100% of clinicians surveyed in Bolton strongly agreed that it saves time in practice.

Karl Ballance, Respiratory Nurse Specialist at North Manchester General, remarked: “Fantastic chart of inhaler devices... we have something similar but not as comprehensive. We would be using it in clinic or on the medical emergency unit when patients forget to bring their medication list.” Hafeeza Bhayat, Medicines Optimisation Pharmacist at Bolton CCG, recently commented: “Please share your poster!” and it has been described as “really most helpful” by Dr Binita Kane, Respiratory Consultant, Manchester University NHS Foundation Trust.

The poster has been invaluable in teaching junior doctors and medical students on the respiratory team at our hospital, who have found it useful to “help summarise the complicated inhaler treatments”. We have also received requests from other healthcare professionals, eg GPs and practice nurses, to access and use the poster.

To our knowledge, there is no other resource of this kind available in the UK. We have now made the identification aid available in an electronic format accessible on tablets and other mobile devices for use nationwide.

We plan to update the poster regularly and add the inhalers used in the treatment of asthma to the next edition. We also intend to carry out a survey in the near future to assess patients’ opinions of the poster.

We are happy for other clinicians to use electronic copies of the poster. The poster will soon be available to download from the respiratory page of the Bolton NHS Foundation Trust website, visit: www.boltonft.nhs.uk/services/respiratory

Declaration of interests
None to declare.

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