

# MY INHALERS DON'T WORK!

## Inhaler Technique Project

FACT: 92% of patients have poor inhaler technique.

FACT: 94% of healthcare staff teach a poor technique.

In the UK approximately 3 people per hour die as a result of COPD (over 25,000 each year) – it is estimated that 1/3rd of these could be saved if this type of project was rolled out across the whole of the UK.

Asthma UK estimate that 75% of Hospital admissions could be prevented and that poor knowledge of how drugs and inhalers work are contributory factors in up to half of the 1400 fatal cases of asthma in the UK each year. The Isle of Wight case study “Reducing Hospital Admissions for COPD and Asthma” mainly concentrated on improving the ability of Healthcare workers to demonstrate and teach good inhaler technique. It’s results included: Hospital admissions and bed days due to asthma fell by >50%; deaths due to asthma fell by 75%; emergency hospital admissions due to asthma markedly lower than other PCTs despite higher prevalence; asthma and COPD hospital costs reduced by over £600k in the first year and have now fallen by 66% and; cost of respiratory medications falling (£70k in the first year).

In 2012, the South Yorkshire and Bassetlaw pilot Pharmacy Local professional network put forward a bid for a bursary offered by NHS Yorkshire and Humber to improve inhaler technique through better education and

training of pharmacy staff. When the bid was accepted, 5 events were provided across the Cluster Area to provide training for pharmacists and pharmacy staff to deliver a service that can significantly improve patient’s inhaler technique, enabling them to improve health outcomes and quality of life and therefore:

- Reduce the number of visits by patients to their GP practice and/or GP home visits;
- Reduce A&E attendance and/or hospital admissions;
- Reduce the number of hospital re-admissions;
- Reduce the costs associated with hospital attendance and prescribing for patients using inhalers.

By the end of the project, over 1,600 Inhaler Consultations had been done as part of Medicines use reviews, New Medicines Service or otherwise in pharmacies across the South Yorkshire and Bassetlaw Area.



**Speak to a friendly face at your local community pharmacy**

## A testing revolution

The delivery of effective, high quality education and training in the use of tools and techniques to address the problem of poor inhaler use was of critical importance to the success of the project. The most successful models of training involved approaches linked to intended project outcomes. While such systematic approaches are well established and well documented elsewhere in the educational literature, they were perceived as innovative by both the project leads and the recipients of the training. This equipped pharmacists to really engage with their respiratory patients beyond the usual MUR service. I spoke to many pharmacists who were enthused and motivated by the service to really make a difference to patients' lives. The further commissioning of this scheme will deliver real benefits to patients, to enhance the skills of pharmacists and to the cost-effectiveness of NHS.

## Community Pharmacy

### Make Use of the unfulfilled potential?

Community Pharmacy staff see NHS patients more often than any other healthcare professional. We are available without appointment and in convenient locations so are well positioned to intervene with patients and reinforce good practice and advice.

Work with us so that our knowledge and training is used as much as possible to help the new NHS achieve its goals.

## Community Pharmacy Improving Inhaler Technique

This type of innovative project has already been proven in other areas of the UK to dramatically improve the inhaler technique of patients. By doing so it will inevitably save the health economy money BUT what will it actually do for the patients?

### What will it do for them?

They will learn more about their conditions and as a result:

- Become part of the team directly involved in improving their health;
- Take direct action to improve their health;
- Improve how they feel;
- Be more able to participate in sport and other activities;
- Reduce visits to the GP, to A&E and reduce hospital admissions.

This service ties directly into the new NHS and the way in which care is delivered when and where the patient needs it.

### Initial Findings from the Inhaler Technique Project

Probably the most significant and worrying finding from the Inhaler Technique Project relates to Inhalation Rate (IR). Column 1 in the table below shows the percentage of patients diagnosed with asthma who achieved the target IR before the Pharmacist consultation.

Type of Inhaler Used (Range / Number)	% achieving range before consultation	% achieving range after consultation
MDI (n=803)	21.7	98.6
Turbohaler® (n=223)	51.6	100.0
Accuhaler® (n=94)	79.8	98.1
Clickhaler® (n=8)	75.0	100.0
Twisthaler® (n=3)	66.7	100.0

The most commonly used inhaler type is the Metered Dose Inhaler (MDI) which works most efficiently at a relatively low IR (30-60 l/min). Unfortunately because it has a very low flow resistance, the majority of patients (over 78% of asthma patients in this sample) inhale at too high IR to achieve optimal effect.

For dry powder inhalers a much higher IR is required and the flow resistance is generally much higher than an MDI. It is probably for this reason that more patients achieved target IR before consultation, but those who didn't, had an IR below the target.

### The Good News

By the end of the Inhaler Technique Project, Community Pharmacists in South Yorkshire and Bassetlaw had helped over 1000 "failing" patients to achieve an inspiration rate that would achieve optimum effect from their inhaler(s).

Further work needs to be done to help patients to maintain the target IR on a consistent basis and Community Pharmacy is in an ideal position to be commissioned to do this.

**We wish to work with local stakeholders to find ways to better use the skills of Community Pharmacy teams.**

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