More than a quarter of people with asthma are still over-using rescue inhalers
16 June 2022

Overuse of these inhalers is linked to an increased risk of hospital admissions and severe asthma attacks. They also found that prescribing varies between GP practices, with some overprescribing rescue inhalers to 6% of their asthma patients and some to as many as 60%.

Asthma is a common lung condition that affects 5.4 million people in the UK and can lead to symptoms such as coughing, wheezing or feeling breathless. Asthma is best controlled by regular use of a corticosteroid inhaler, which prevents symptoms from occurring. People with asthma may also use rescue or 'SABA' (short-acting beta-agonist) inhalers to quickly relieve symptoms when needed.

However, research has shown that it's common for people with asthma to overuse SABA inhalers (defined as six or more prescriptions per year), and that relying on SABA for relief instead of using corticosteroids to prevent symptoms is linked to poor asthma control and an increased risk of severe asthma attacks and hospital admissions. The National Review of Asthma Deaths in 2014 found evidence of overuse of or over-reliance on reliever inhalers in people who died of asthma. Electronic surveillance of prescribing in primary care was recommended as a matter of urgency.

In East London, where Queen Mary University of London is based, hospitalization for acute asthma is 14% above the London average. Given the impact this has on our community, researchers at Queen Mary's Clinical Effectiveness Group (CEG) analyzed over 700,000 anonymised patient records at 117 GP practices in East London. They found that 26% of patients with asthma are still overprescribed SABA inhalers. Out of this group, a quarter of those were also underusing preventative (corticosteroid) inhalers, raising concerns about inadequate prevention in a group of people with significant asthma.

Anna De Simoni, Lead author and GP and Clinical Lecturer in Primary Care at Queen Mary University of London, said:

"Working with patients to improve regular use of preventative inhalers should be central to reducing asthma-related hospital admissions. There is still significant room for improvement—we calculated that supporting patients who use more than 12 SABA inhalers per year to reduce their use to 4-12 could result in 70% fewer asthma-related hospital admissions in that group.

"There is also a need to provide GPs and pharmacists with the right tools to support patients to do this. In the next phase of this research program, we plan to provide practices with tools to support the identification and management of high-risk patients based on prescribing records."

The study also revealed that prescribing varies significantly between GP practices, with some overprescribing to 6% of their asthma patients and some overprescribing to as many as 60%. Further analysis of the variation revealed that overprescribing was strongly linked to repeat
dispensing (where prescriptions are issued automatically by community pharmacists).

Paul Pfeffer, co-author and Consultant Respiratory Physician with special interest in asthma at Barts Health NHS Trust, said:

“There is an ongoing major burden of inappropriate and dangerous rescue inhaler overuse in asthma, and our paper highlights the complexity of the problem with multiple reasons patients are overprescribed SABA inhalers. The findings are a call for more detailed research into interventions to reduce inappropriate SABA overuse in different patient groups.”


Provided by Queen Mary, University of London