

Identifying asthma patients who tolerate lower doses of steroids remains problematic

May 22 2012

Common respiratory measurements are not effective in determining which asthma patients are able to significantly decrease their use of inhaled corticosteroid (ICS) medications without risk of flare-ups or exacerbations, according to a new study conducted by researchers in the United Kingdom. The study also showed that nearly three-quarters of asthma patients can safely decrease, or step-down, their use of ICS medications once their symptoms are under control.

The study will be presented at the ATS 2012 International Conference in San Francisco.

Although [medical guidelines](#) recommend decreasing the use of [inhaled corticosteroids](#) (ICS) in asthma patients once asthma flare-ups or exacerbations are under control, identifying which patients will have additional flare-ups following a decrease in ICS use remains problematic.

"Our results show that while none of the baseline measurements we evaluated were effective in identifying which patients will or will not be able to reduce their ICS dose, 67 percent of well-controlled asthmatic patients can successfully reduce their ICS dose by half without risking loss of symptom control or exacerbation," said lead author Emma Wilson, BSc Hons, research associate at Nottingham Respiratory [Biomedical Research](#) Unit. The study was funded by the U.K.'s National Institute for [Health Research](#).

"Ideally, clinicians would be able to tell which patients would be able to tolerate a reduction in medicine and, just as importantly, which patients would have symptom flare-ups with a reduction in ICS use," Ms. Wilson added. "But so far, a means of doing that has remained frustratingly out of reach. In the current study, we wanted to learn if simple measurements, routinely used in primary care to assess [asthma patients](#), might be helpful in categorizing patients into those who can tolerate a decrease in ICS use, and those who cannot."

The researchers gathered data from 191 non-smoking patients between 18 and 75 years of age who had been diagnosed by their general practitioner as having mild to moderate asthma. Patients were selected based on their responses to an asthma control questionnaire, their use of oral steroids, the frequency of exacerbations and hospitalizations, and their smoking history.

At the beginning of the study, the researchers performed baseline tests commonly used in primary care asthma assessment in the U.K. Once baseline measurements were collected, the ICS dose of each patient was reduced by 50 percent. Baseline measurements were repeated at the end of the study period. To quantify their results, the researchers defined loss of control as an increase of 0.5 or greater in a patient's asthma control questionnaire score, or an increase in the ICS dose equal to the original level. An exacerbation was defined as symptoms which did not respond to short-acting bronchodilator use, as well as a need for oral rescue steroids.

At the three-month follow-up, the researchers found that 128 patients (67 percent) were able to reduce their ICS dose by half with no loss of control or exacerbation. Of the remaining patients, 32 (17 percent) suffered from a loss of symptom control and 31 (16 percent) experienced an exacerbation. The researchers also found that there was no significant difference between the baseline characteristics of the

subjects who remained well controlled and those who lost control or experienced [exacerbations](#).

"Although we found that 67 percent of patients with well-controlled, mild to moderate asthma could successfully reduce their ICS dose by half without suffering from a loss of control or exacerbation at three months, none of the baseline measurements we evaluated in this study helped us to identify patients who could safely stepdown," Ms. Wilson said.

She added that while the measurements provide useful patient-specific clinical information, the study results suggest that clinicians will most likely need to look at other options to help identify patients who respond positively to stepping down their ICS dose.

"All respiratory researchers are striving to find the 'gold standard' in asthma assessment tools, and while it is frustrating that this study did not identify a clinical measurement which strongly distinguishes between patients who can or cannot step down their ICS medication, we were surprised to see that a lower percentage of patients suffered from a loss of control or exacerbation than we initially predicted," she said. "We now hope general practitioners will feel more confident in initiating ICS reduction in a larger proportion of their well-controlled asthmatic [patients](#)."

More information: "Can We Identify Asthma Patients Who Can Safely Reduce Their Inhaled Corticosteroid Medication Without Suffering From A Loss Of Control?" (Session C22, Tuesday, May 22, Room 3010-3012, Moscone Center; Abstract 31012)

Provided by American Thoracic Society

Citation: Identifying asthma patients who tolerate lower doses of steroids remains problematic (2012, May 22) retrieved 25 April 2024 from <https://medicalxpress.com/news/2012-05-asthma-patients-tolerate-doses-steroids.html>

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