Assessing adherence to inhaled corticosteroids (ICS) in difficult-to-treat asthma populations Hetal Dhruve^{1,2}, Beyene K^{3,4}, Chan AHY^{3,5}, Clark A⁵, Horne R⁵

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Introduction:

It is estimated that 5-10% of people with asthma have difficult-totreat asthma, with poor symptom control and frequent exacerbations. Most commonly, this is due to poor adherence to inhaled corticosteroids (ICS) which once identified and corrected, can result in good asthma control. Measuring adherence to ICS accurately can be difficult. The two most commonly used methods for assessing adherence are patient self-report and prescription records. However, it is well known that self-report methods often overestimate adherence. Whether this is true for people with difficult-to-treat asthma is not yet known.

Aim:

To establish the correlation between adherence measures based on a patient self-report and prescription refill records in patients with difficult-to-treat asthma.

Methods:

Patients attending a difficult-to-treat asthma clinic were recruited in London, UK. Adherence from prescription records was calculated using the medication possession ratio (MPR) over 12 months for each patient. Optimal adherence was defined as MPR≥75%. Self-reported adherence was assessed using the validated Medicines Adherence Report Scale [MARS] for asthma; optimal adherence for this method was defined as ≥80%.

6.9% where MPR ≥ 75% but patients admitted poor adherence to ICS



Results:

A total of 101 patients were included. Overall, MPR and MARS were concordant 93.1% of the time. About a third (33/101 (32.7%)) of people with difficult-to-treat asthma had optimal adherence using both methods of adherence assessment. However, 60.4% of the patients had suboptimal adherence to ICS inhalers; confirmed by both MPR and MARS questionnaires. A small proportion of patients (6.9%) were prescribed \geq 75% of their ICS inhalers but admitted poor dherence.

Conclusion:

This data suggests that the MARS questionnaire for asthma is a reliable tool for assessing adherence in people with difficult-to-treat asthma in the absence or in combination with prescription records. Using questionnaires, such as MARS instead of prescription records may be more readily available, and less time consuming when assessing adherence for people with difficult-to-treat asthma.