

NICE ASTHMA GUIDELINES 2017

On 29th November 2017, the National Institute for health and Care Excellence (NICE) published new guidance on asthma diagnosis and monitoring¹. This is the first time that NICE have published guidance on how to diagnose and manage asthma, and is in addition to existing guidance published by the British Thoracic Society and Scottish Intercollegiate Guideline Network (BTS/SIGN)².

There are some subtle differences in the way these two guidelines are compiled. The BTS/SIGN guidelines employ a robust critical appraisal of the literature, coupled with consideration of pragmatic studies to ensure that guidelines provide clinically-relevant recommendations. The NICE methodology overlays critical appraisal of the literature, but also taking into consideration with health economic modelling.

The difference in these guidelines has led to the suggestion that NICE guidelines are more theoretical, whereas the BTS/SIGN guidelines are more practical³.

Because of these methodological differences, there are some key differences in the guidance provided. These differences are in two key areas:

- I. Diagnosis
- II. Pharmacological management

DIAGNOSIS

Both guidelines acknowledge that there is no single test that diagnoses asthma, and that diagnosis should be made using a combination of clinical assessment and objective measurements. Also, that once a diagnosis is made, the basis on which that diagnosis is made should be recorded, i.e. which tests were used and what the results were.

Both guidelines highlight the use of caution when using spirometry, which remains important, but is less useful in ruling-out asthma. Only a quarter of people diagnosed with asthma were shown to have obstructive spirometry. The BTS/SIGN guideline places greater importance of using the Lower Limit of Normal (LLN) value, rather than the traditional fixed value of 70%, when examining the FEV1/VC ratio.

NICE places a greater emphasis on Fractional Exhaled Nitric Oxide (FeNO) testing, a relatively simple breath test which detects the presence of eosinophilic inflammation in the airway. Both guidelines suggest that this test is useful in diagnosing asthma, but that it should not be used in isolation. The practical implications of introducing a new test in primary care, along with the cost, time, and training issues, appear to be considered in part by NICE through the suggestion of “diagnostic hubs.”

PHAMACOLOGICAL MANAGEMENT

Inhaled Steroid Initiation

The BTS/SIGN guideline of 2016 moved away from the traditional first-step of asthma management, by suggesting that inhaled steroid therapy should be used in all but a small minority of people with asthma. This followed the National Review of Asthma Deaths, which showed that many people who died of asthma did not take inhaled steroids.

The NICE guideline has not followed this trend, and remains suggestive of the traditional step-one management of short-acting B2 agonist alone. In this respect, by following the NICE guidelines

there would be fewer people with asthma taking inhaled steroid, then there would be following BTS/SIGN

Leukotriene receptor antagonists

The most controversial element of the NICE asthma guidelines is the suggestion that Leukotriene receptor antagonists (LTRA) should be used BEFORE using Long Acting B2 agonists (LABA). Adding LABA therapy to existing inhaled steroid therapy has been shown to be more clinically effective than adding LTRA therapy to inhaled steroid. However, LTRA therapy is cheaper than LABA therapy, and as such is the reason for its inclusion in the NICE guidelines.

On a practical level, it may be easier to move from an inhaled steroid to an ICS/LABA combination by the simple change of an inhaler. Whereas the addition of an extra medication in the form of a tablet that is taken at night, may reduce adherence.

Providing a cheaper option may be more cost effective, however this needs to be weighed against the cost of losing the confidence of the patient if asthma control is not gained quickly. Additionally, failure to gain control of asthma quickly may lead to asthma attacks and hospital attendances.

Maintenance and Reliever Therapy

Both guidelines suggest MART (Maintenance and Reliever Therapy) is beneficial. NICE suggests using MART slightly earlier (“uncontrolled on a low dose of ICS/LABA”) and BTS/SIGN suggests use of MART for people (“who have a history of asthma attacks on medium dose ICS or ICS/LABA”). Both guidelines continue to emphasise the need to discuss this regime with the patient, and that any decision to use this therapy should be made jointly between patient and health professional.

NICE recommends the use of MART in children, despite there being no licensed indications for MART in children.

Self Management

Both guidelines recommend the use of individualised written asthma action plans, which provide advice for patients in helping them to detect a worsening condition, and how to manage this themselves. Guidance should include short-term measures which include quadrupling the dose of inhaled steroid, which can be very effective if actioned soon enough.

Differences in the guidelines are limited to the methodological techniques to be used for further research into self management plans.

Inhaled Steroids In Children

There are differences between the guidelines in the classification of potency of inhaled steroids. These differences are subtle, and somewhat subjective, and unfortunately entirely unhelpful. Newcomers to respiratory care may only be bemused by the conflicting information.

An important aspect to consider, is that the BTS/SIGN recommend that children taking medium doses of inhaled steroid should be under the care of a specialist paediatrician. NICE simply advise consideration of seeking advice from a health professional who has experience of looking after children with asthma.

1. Asthma: diagnosis and monitoring of asthma in adults, children and young people. NICE NG 80, Methods, evidence and recommendations, November 2017 (<https://www.nice.org.uk/guidance/ng80/evidence/full-guideline-asthma-diagnosis-andmonitoring-pdf-4656178047> accessed 8/01/2018)
2. BTS/SIGN British Guideline for the management of asthma, 2016, SIGN 153. (<http://www.sign.ac.uk/sign-153-british-guideline-on-the-management-of-asthma.html> accessed 8/01/2018)
3. White J, Paton JY, Niven R, et al Guidelines for the diagnosis and management of asthma: a look at the key differences between BTS/SIGN and NICE Thorax Published Online First: 03 January 2018. doi: 10.1136/thoraxjnl-2017-211189