# Reducing short-acting beta-agonist overprescribing in asthma

Commentary for BJGP: Reducing SABA overprescribing in asthma

The paper by DeSimone et al. in this issue [1] demonstrates clearly the major problems associated with the over-prescription of short acting beta agonists (SABA) in the management of asthma in the UK and critically evaluates some of the current challenges prior to instituting a solution.

As the authors point out, the diagnosis of asthma may be erroneous in primary care. Studies from the UK, Canada and the Netherlands demonstrate a very wide range of asthma overdiagnosis in primary care with up to 30% of patients referred to specialist asthma clinics demonstrated not have asthma after evaluation.[2] The corollary of this is that those who are over-diagnosed are treated for a disease or problem they do not have (so asthma control cannot be achieved, and excess SABA is used for symptoms) and are not treated for the disease they do have, underlining the critical task of making a clear diagnosis. It is important to note that diagnosis does not have to be made at the first consultation and should be recorded as a provisional diagnosis until confirmed.

Any use of SABA indicates lack or loss of control, thus any SABA use needs to be reviewed to assess what lessons can be learnt with a view to aiding the patient to take better control of their disease. The critically important statement in the paper "even in those who have regular asthma checks" begs the question: what actually happens in these checks? The annual review is currently little more than a tick box exercise. The mere recording of items for the Quality Outcome Framework (QOF) is meaningless unless an attempt is made to address problems identified by means of a structured review addressing smoking cessation, inhaler technique, medication optimization, structured education and the agreement of a personal asthma action plan.[3] Given that few patients possess a personal asthma action plan or that the majority of doctors and nurses do not know how to use an inhaler [4] demonstrates the need for urgent action. It should be noted that mixing inhaler types (metered dose inhaler (MDI) with dry powder inhalers (DPI) rather than all MDI or all DPI) leads to a significant increase in loss of control and exacerbations which implies increased use of SABAs. MDIs and DPIs require fundamentally different inhalation techniques which leads to this loss of control.[5] This should be relatively simple to address[6] but not through a programme of indirect or automatic switching but by a process of face-to-face contact.[7]
Of note is that the GINA strategy now seeks to significantly reduce SABA prescribing by substituting them with rapid-acting long acting beta agonists (LABA) combined with inhaled corticosteroid (ICS), a move which would necessarily mean a reduction or elimination of salmeterol usage for asthma.[8]

Refreshingly, respiratory disease is gaining some recognition at high levels in the UK [9]but the strategy is long on aspirations and short on actions, but doomed to failure unless underpinned by a significant investment in knowledge and skills training, a strategy which achieved great benefits in Finland at no overall increase in costs. leading to improved rates of asthma control, increased use of inhaled corticosteroids and reduced hospital admissions.[10]

Thus a quality improvement prescribing project, by improving care provision and asthma control will achieve a reduction in SABA based on
1. Ensuring the diagnosis is correct,
2. Patient assessment by a health care professional who understands asthma education, inhaler technique and the provision of supported self-management [11] coupled with identification of patient's beliefs which perpetuate over reliance on SABAs.[12]
3. creation of clear criteria for the earlier referral of those patients who fail to achieve control for confirmation of diagnosis (or delivering an alternative diagnosis and addressing that) and consideration of biologic therapy.[13]
Any initiative taken should also make adjustments for the socio-economic gradient which exists in all societies where the clustering of co-morbidities and poorer outcomes in lower socio-economic groups suggests that enhanced investment is needed to address these factors. [14]

Word count 1088

[1] Reducing SABA overprescribing in asthma: lessons from a Quality Improvement prescribing project in East London De Simoni, Anna; Hajmohammadi, Hajar; Pfeffer, Paul; Cole, James; Griffiths, Chris; Hull, Sally. DOI: https://doi.org/10.3399/BJGP.2021.0725

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