

# Reducing short-acting beta-agonist overprescribing in asthma

The study by De Simone *et al* in this issue<sup>1</sup> demonstrates clearly the major problems associated with the overprescription 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.

### ASTHMA DIAGNOSIS

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.<sup>2</sup>

The corollary of this is that those who are overdiagnosed 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.

### STRUCTURED REVIEWS

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 study *'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 and Outcomes Framework (QOF) is meaningless unless an attempt is made to address problems identified by means of a structured review addressing smoking

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cessation, inhaler technique, medication optimisation, structured education, and the agreement of a personal asthma action plan.<sup>3</sup>

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<sup>4,5</sup> shows the need for urgent action. It should be noted that mixing inhaler types (metered dose inhalers [MDIs] with dry powder inhalers [DPIs] 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 that leads to this loss of control.<sup>6</sup> This should be relatively simple to address<sup>7</sup> but not through a programme of indirect or automatic switching but by a process of face-to-face contact.<sup>8</sup>

Of note is that the Global Initiative for Asthma 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 that would necessarily mean a reduction or elimination of salmeterol usage for asthma.<sup>9</sup>

### THE NEED FOR KNOWLEDGE AND SKILLS TRAINING

Refreshingly, respiratory disease is gaining some recognition at high levels in the UK<sup>10</sup>

but the strategy is long on aspirations and short on actions, doomed to failure unless underpinned by a significant investment in knowledge and skills training, a strategy that achieved great benefits in Finland at no overall increase in costs leading to improved rates of asthma control, increased use of ICS, and reduced hospital admissions.<sup>11</sup>

Thus, a quality improvement prescribing project, by improving care provision and asthma control, will achieve a reduction in SABA based on:

- ensuring the diagnosis is correct;
- patient assessment by a healthcare professional who understands asthma education, inhaler technique, and the provision of supported self-management,<sup>12</sup> coupled with identification of patients' beliefs that perpetuate over-reliance on SABAs;<sup>13</sup> and
- 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.<sup>14</sup>

Any initiative taken should also make adjustments for the socioeconomic gradient that exists in all societies, where the clustering of comorbidities and poorer outcomes in lower socioeconomic groups suggests that enhanced investment is needed to address these factors.<sup>15</sup>

In summary, by raising the quality of care given to those with asthma coupled with the significant increase in asthma control obtained, a reduction of SABA usage will be achieved. This decrease in exacerbations and hospitalisations coupled with reduction in SABA use will, as a corollary, have a beneficial environmental impact as an added benefit.<sup>16</sup>

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**Competing interests**

The author has declared no competing interests.

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