

Commentary: inhalers and asthma control

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This edition of *Breathe* contains an excellent review of asthma inhalation devices by LAVORINI *et al.* Despite the availability of effective asthma treatments and evidence-based guidelines, asthma remains poorly controlled, resulting in a significant burden for both patients and healthcare systems [1].

There are three essential components to ensuring good asthma control: patients being prescribed the appropriate medication according to the severity of their condition; correct inhaler technique to ensure effective delivery; and adherence to the prescribed treatment [2].

National and international guidelines on asthma management currently provide little practical guidance on inhaler device selection, and that which is included is not device specific. As stated by the authors, with the range of available drug-device combinations now in excess of 100, as cited in this article, this presents clinicians with the potential for confusion [3].

Are there possibly too many choices? Without a clear process to aid clinical decision making, this degree of choice may be counterproductive and result in very little improvement in asthma control.

Evidence from the literature demonstrates minimal difference in clinical efficacy between devices, but a large number of patients are unable to use their inhalers properly and are therefore unable to reap the therapeutic benefits [4]. It is evident, due to the heterogeneity of patients, that no single inhaler can satisfy the needs of all; therefore it is imperative that the most suitable device is chosen for each individual patient.

The best inhaler is the one that the patient uses: adherence is an important factor, because even if a patient can use an inhaler, we cannot assume they will use it as prescribed. Successful control of asthma relies heavily on patients' adherence to their prescribed inhaled therapies [4] and it has been estimated that adherence rates for inhaler use are between 20% and 73% [5]. The failure of patients to use their medication as prescribed is associated with an increase in asthma-related adverse effects [6].

LAVORINI *et al.* review the hand-held devices currently available and summarise how to use each device, pointing out the positive and negative points of each.

The limitation with this written descriptive approach is similar to the limitations of written patient information. It is extremely hard to describe a practical skill: this is best done by practical demonstration and practice. There is an increasing problem in practice, since fewer pharmaceutical companies manufacture single-patient-use placebo devices and issues of infection control militate against multiple-use devices.

The article by LAVORINI *et al.* should be welcomed by all healthcare professionals, not just physicians. However, it is disappointing that little recognition has been given to the substantial role of nurses in undertaking this important role and there is no reference at all to pharmacists, in either selecting appropriate inhaler devices for patients or in teaching and assessing inhaler technique. For over 20 years, in the UK, trained asthma nurses have been delivering high-quality asthma management programmes to patients and they fulfil a central role in education and teaching patients about inhaler devices and encouraging adherence. It is true that, legally, the individual issuing the prescription will have ultimate responsibility, but in reality this is often delegated to the nurse. The practice nurse has become a major provider of asthma care, particularly in the UK. In a national UK survey [7], 88% (n=403) of nurses who completed a recognised Diploma course in asthma care were involved in recommending prescriptions for asthma medications. Nurses are increasingly working autonomously within asthma management, providing both diagnosis and follow-up care [8]. As the role of the nurse continues to develop within primary care, and particularly as many European countries consider following the UK's lead in expanding prescribing rights to nurses (and also to pharmacists), they will inevitably be even more involved with inhaler device selection.

The importance of training the healthcare professional who is teaching patients has been glossed over in this article. Many health

professionals are limited in their ability to use inhaler devices properly and as a result they are not best placed to teach patients. There is a need to ensure they are competent themselves to teach others. LAVORINI *et al.* stress the importance of regular teaching of patients and in particular children, but do not address the need to regularly update healthcare professionals' skills, knowledge and competence.

Until now, there has been little clear comprehensive guidance to assist the decision making processes for clinicians. In 2005, the American College of Chest Physicians and the American

College of Asthma, Allergy and Immunology reviewed the guiding principles of inhaler device selection and constructed a list of eight points to consider [9]. Although this new paper takes this a step further, it still does not go far enough. What is still lacking and much needed is the development and testing of an algorithm (based on the best available evidence) to guide device selection in primary care, based on both asthma severity and medication needs and patient-specific factors. Indeed, if this was undertaken, it would certainly remove much of the confusion that still prevails.

References

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