

EDITORIAL

Who should look after children with asthma?

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In the last 20 years we have witnessed an enormous change in all aspects of the mechanism of health care delivery including chronic disease management. In many countries, this has focused on both a transfer of responsibility from secondary care specialists to general practitioners (GPs), as well as the increasing role of appropriately trained and qualified primary and secondary care nurses. The management of chronic respiratory diseases – in reality, asthma and chronic obstructive pulmonary disease (COPD) – fits this model well. Due to the high prevalence of asthma and COPD and (in most cases) the lack of requirement for specialist tests or invasive interventions, patients with these conditions can, and often must, be managed in primary care. In the UK, credit for facilitating this transfer of management from secondary to primary care can be shared by visionary drivers in the General Practitioners in Asthma Group (now the Primary Care Respiratory Society UK, PCRS-UK), the National Asthma Training Centre (now Education for Health), and the support of some wise, thoughtful and non-threatening secondary care opinion leaders.¹

In this issue of the Journal, Kuethe *et al.*² develop the evidence base for alternative models of health care delivery for the management of chronic asthma in children by clinicians of different crafts – paediatrician, GP or (hospital-based) specialist nurse. The rather technical primary endpoint, airway hyper-responsiveness as measured by methacholine challenge, demonstrated non-inferiority between the groups. A number of secondary outcome measures more appropriate to routine care showed a similar result. The headline outcome was a substantial and significant reduction in the planned reviews in the GP-led arm of the study, which may have some health economic implications.

So what does this study tell us? This was a randomised study in children with asthma age 6 to 16 years, but there were important inclusion and exclusion criteria. Firstly, selection of a patient for inclusion was based on “a doctor’s diagnosis of asthma”. Secondly, children with severe asthma – on high dose inhaled corticosteroid (ICS) plus long acting β_2 -agonist (LABA) or montelukast – were excluded. Finally, the asthma nurse “worked strictly according to guidelines”. Although “in most cases the asthma nurse was able to provide care without consultation with the paediatrician”, a small but important number of patients (8%) in this cohort were deemed to require additional specialist support.

A shortage of published clinical studies comparing different models of chronic care in asthma management hampers evidence-based guideline writers in publishing recommendations. This is understandable; identifying useful outcome measures is problematic since these could range from hard, traditional endpoints such as exacerbation rates, to softer patient-related evaluations such as convenience of appointments or staff empathy. Delivery of asthma care is a complex intervention and therefore the importance of individual components of a package of care can be difficult to interpret.³ Advice on the structures and processes of a system-wide approach to asthma management are available, however. In Scotland, clinical standards for asthma services for children and young people were published by NHS Quality Improvement Scotland in 2007.⁴ These standards, mandatory in Scotland, call *inter alia* for systems to identify and manage high risk children and young people with asthma, such as those with frequent visits to emergency centres or out-of-hours contacts, or those who are prescribed or appear to require above-licensed doses of ICS. This

safety net of exemptions or identification of potentially problematic issues was satisfactorily addressed in Kuethe *et al's* study.² Even the most reactionary of clinicians should be reassured by a system for allocating patients to a nurse for follow-up which includes confirmation by a doctor of the diagnosis of asthma (although, of course, this is not by definition infallible; diagnoses of asthma in children should always be questioned and the evidence for making the diagnosis recorded), the exclusion of more severe cases, and an insistence that management guidelines are strictly followed. Equally heartening is that nurses still sought specialist support when necessary. However, efforts are still required to ensure that nurse training is commensurate with the responsibility for patient management that they hold; worryingly low levels of accreditation have been reported.⁵ Nevertheless, through all this we can move towards a goal of "getting the right patient to the right clinician at the right time".

So, children with questionable or complex diagnoses, important co-morbidities, frequent exacerbations or other manifestations of severe disease, or the requirement for potentially toxic therapies, should have at least some (and potentially full) hospital-based medical paediatric input. Patients with milder disease can be effectively supervised by appropriately trained nurses. Arguably, this activity can be carried out equally well in primary care, with the possible additional advantages of convenience of accessibility and timing, less cost, and a more holistic and family-centred approach. But where does this leave the role of the GP? The measured or cavalier or forgetful approach resulting in reduced numbers of planned reviews gave no indication of poorer outcomes in Kuethe *et al's* study.² In reality, in the UK at least, many GPs have little involvement in the routine, planned review of people with asthma, which has led to fears of de-skilling.³

In our harsh economic climate, all those responsible for the delivery of health care have encountered tensions in achieving their

objectives. In seeking to develop or redesign services, often-competing factors need to be balanced. The Institute of Medicine describes "six dimensions of quality": specific goals to ensure continuous quality improvement.⁶ A service should be Safe, Effective, Patient-Centred, Timely, Efficient and Equitable. Traditionally, the configuration of health care delivery has favoured one or more of these elements over others. We must strive to achieve a sustainable equilibrium between all six, acknowledging differing points of view and different targets, in order to continue to deliver optimum care for all.

Conflict of interest declaration

JH chaired the NHS Quality Improvement Scotland clinical standards for asthma services for children and young people group.

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