

# Preventing asthma deaths:

## what can GPs do?

Key implications from the National Review of Asthma Deaths (NRAD) for general practice include: a need to improve accuracy of the diagnosis; recognise and treat asthma as a chronic ongoing disease; to provide asthma action plans for patients; and to ensure that staff delegated to do asthma reviews are appropriately trained.

The complexity and workload of GPs has increased against a background of ever-increasing demand and decreasing resources in the UK NHS. However, there are a number of lessons to be learned from the NRAD for healthcare professionals working in primary care. The NRAD, a multidisciplinary confidential enquiry, investigated 276 cases classified with asthma as the underlying cause of death,<sup>1</sup> during the year from February 2012. As in previous studies of the medical care provided for people who died from asthma,<sup>2-8</sup> the NRAD panel experts identified potentially avoidable factors in over two-thirds of the 195 cases they concluded had died from asthma. These included failure to: perform asthma reviews; to provide patients with personal asthma action plans; to identify life-threatening risk factors; and to follow-up patients after attacks.

Three decades ago, asthma was under-diagnosed in primary care, and one of the reasons postulated was that the condition was being treated as if asthma constituted a series of acute attacks rather than an underlying chronic disease.<sup>9</sup> At that time, many patients presenting with recurrent respiratory symptoms were inappropriately prescribed antibiotics, and others were treated acutely with nebulised bronchodilators without any attempt at diagnosing the underlying chronic asthma, punctuated by intermittent attacks. Only 71% of the 276 cases classified with asthma as the underlying cause of death, were confirmed as such by the NRAD panels; and 27 out of 276 (10%) did not have any evidence justifying a diagnosis of asthma; furthermore they concluded that 81 out of 276 (29%) of these cases did not actually die from asthma. There is, therefore, an urgent training need to ensure the accuracy of the diagnosis in people thought to have asthma,<sup>10,11</sup> particularly if poorly controlled, and also for doctors to update their knowledge on correct completion of death certificates.<sup>12</sup>

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The Global Initiative for Asthma (GINA) report defines asthma as:

*'... a heterogeneous disease, usually characterized by airway inflammation. It is defined by the presence of respiratory symptoms such as wheeze, shortness of breath, chest tightness and cough that vary over time and in intensity, together with variable expiratory airflow limitation.'*<sup>10</sup>

In other words, a chronic ongoing disease that is prone to flare-ups. And yet the focus of asthma treatment, according to the NRAD findings, was that for acute illness. There was evidence in the records that of those who died from asthma, only 23% were provided with personal asthma management plans, and that less than half (84 out of 195) had an asthma review in the year before death.

People with poor asthma control are at risk of attacks. Over half of those 195 NRAD cases that died from asthma were classified as having mild or moderately severe asthma. However, severity of asthma is defined as the amount of treatment required to control a patient's asthma;<sup>13</sup> and there was little evidence within the medical records of an assessment of asthma control. People with well-controlled asthma should need less than three short-acting beta-agonist bronchodilator inhalers a year, yet there was evidence of overprescribing of this reliever medication; over half of those

who died from asthma were prescribed more than six salbutamol inhalers in the 12 months before death. Therefore many of the mild/moderate cases were probably more severe, or undertreated given that the median number of topical corticosteroid inhaler prescriptions was 5 per year (interquartile range 2-8).

A recurring pattern among cases investigated by the NRAD was that asthma management was not addressed opportunistically in patients with underlying poorly-controlled disease when they consulted for other problems. So a patient for example, with a previous history of uncontrolled asthma symptoms, low peak expiratory flow (PEF) and multiple prescriptions for reliever inhalers, would not have his asthma assessed when consulting for a musculoskeletal problem. While GPs are very busy, and under a lot of time pressure, it is difficult to understand this type of scenario, noted in a number of patients. Likely explanations include: allocated consultation time is too short; doctors do not look back through the medical records when consulting and simply focus on the presenting problem; and that there has been a decline in the numbers of trained asthma nurses working in primary care. Another recurring theme was a failure to optimise treatment in patients' responding positively to the three Royal College of Physicians questions (RCP-3Q),<sup>14</sup> when assessing current asthma

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control as part of an asthma review (mainly for the purpose of the voluntary incentive scheme for GPs — the Quality Outcomes Framework [QOF]).<sup>15</sup>

One of the 19 recommendations by the NRAD stated:

*'People with asthma should have a structured review by a healthcare professional with specialist training in asthma, at least annually. People at high risk of severe asthma attacks should be monitored more closely, ensuring that their personal asthma action plans are reviewed and updated at each review.'*

Perhaps this recommendation could be addressed by reverting to a similar UK system used in the 1990s, where appropriately trained asthma nurses reviewed people with asthma in dedicated asthma clinics. The subsequent removal of funding for these clinics (as has been the case with so many good systems in the NHS), has resulted in a marked reduction of trained nurses performing asthma reviews. The NRAD reported that at least 100 out of 195 (51%) of the practices, caring for those who died from asthma, had at least one nurse trained in asthma care; although it is unclear who performed the reviews in the 105 out of 195 (54%) patients. At least 32% of the practices reported that nurses without any asthma training were doing the reviews; in fact the panel experts commented in a number of cases that the reviews seemed to be regarded as a simple 'tick-box' exercise. While GPs and practice nurses do need to keep up to date and implement asthma guidelines, it is worth considering a variation of that system used in the 1990s; perhaps through commissioning dedicated multidisciplinary outreach asthma clinics to work in parallel with primary care. These clinics, staffed by people with asthma expertise, could start by actively following-up those people who have been treated for an asthma attack in A&E departments, as well as in practices. The aim of this service would be to achieve asthma control<sup>10</sup> through appropriate medication and education, and

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refer the patients back to primary care. An outcome would be a dramatic reduction in hospital admissions and possible deaths. The NRAD draws attention to shortcomings in the management of asthma, but its findings may well exemplify one chronic illness among many, in which there are systematic failures to cope with complexity and multimorbidity in general practice: a proxy for a basket of problems in primary care which may have as much to do with undergraduate education and vocational training as with fragmentation of care and lack of continuity within practices.

The NRAD, however, has provided us with a very clear message: we need to put asthma back on the agenda and change the way asthma is managed both in primary care and across the primary and secondary care interface.

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