

## Asthma in older adults: a holistic, person-centred and problem-oriented approach

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*Regardless of how obstructive lung disease is labelled, targeting treatment to components of the problem is the best solution*

Three-quarters of deaths due to asthma in Australia occur among people aged 55 years or older.<sup>1,2</sup> Many more deaths and hospitalisations in older people are attributed to chronic obstructive pulmonary disease (COPD).<sup>2</sup> Between 1997 and 2003, 318 deaths per year were attributed to asthma and 5581 deaths per year were attributed to COPD among Australians aged 55 and over.<sup>2</sup> How can we do better than we are now in dealing with this problem?

First, we need to consider whether we are dealing with two separate problems, or one, or several. This is the subject of some controversy. It has been argued for many years that the terms “asthma” and “COPD” are not particularly useful for clinicians in defining a disease or syndrome, particularly in older people.<sup>3</sup> However, the terms are entrenched in clinical usage and, in the case of asthma, general usage. Furthermore, separate guidelines have been promulgated for both conditions. People who are labelled as having asthma have diverse clinical characteristics, and some people with other disease labels have clinical characteristics similar to those labelled as having asthma. There are very few features of aetiology, pathology, natural history, or management strategy that are uniquely linked to the diagnostic labels of asthma or COPD. Our view is that we are dealing with a diverse range of disorders that cannot be adequately classified simply as either “asthma” or “COPD”.

The real problem we face is obstructive lung disease, whether it carries the label asthma, COPD, emphysema, or chronic bronchitis. Obstructive lung disease exists as a heterogeneous disorder affecting people of all ages. The manifestations of the disease may include episodic breathlessness (with or without cough) and progressively worsening exertional breathlessness and airflow limitation. In some individuals, this may progress to respiratory failure. Avoidance of smoking prevents one form of the disease, reduces the rate of lung function decline, and improves treatment response in more reversible disease. Rigorous attention to occupa-

tional hygiene in high-risk workplaces can prevent some cases of the disease. Reducing indoor exposure to smoke and fumes from biomass fuels may also prevent some forms of obstructive lung disease.<sup>4</sup> However, no other preventive strategies are supported by available evidence. The range of management strategies that are available may control the disease, but do not cure it.

In clinical practice, the various labels for obstructive lung disease tend to be applied in a fairly haphazard manner.<sup>5,6</sup> This is not only because it is difficult to distinguish them clinically but also because there appears to be little point in doing so. Clinical management is most often guided by other characteristics. Among all patients with obstructive lung disease, management is targeted at person-centred problems: for example, pulmonary rehabilitation for breathlessness and loss of physical condition;<sup>7</sup> bronchodilators for airflow obstruction and hyperinflation; inhaled corticosteroids for airway inflammation; smoking cessation for smokers; and influenza vaccinations for all those who are at risk of exacerbations. There is also increasing recognition of the need to assess and manage systemic problems and relevant comorbidities in older people with obstructive airway disease.<sup>8</sup> In addition to addressing patients' current problems, assessing their future risk is also important, and anticipation of exacerbations and deterioration will facilitate planning and better management. Targeting treatment to components of the problem in this way may overcome the limitations of a diagnosis-centred approach, and accords with multicomponent-based approaches to illness that are effective in older people.<sup>9</sup> Such an approach is also well suited to primary care, where patients present with symptoms, activity limitation and concerns about the impact of the disease on their daily life.

Having established that we are dealing with a heterogeneous disease entity with a range of clinical problems, and solutions specific to these problems, what are the barriers to making progress with this disorder? There is evidence of generally poor

diagnostic evaluation of symptomatic patients; inadequate availability of some effective therapies, particularly in disadvantaged populations<sup>1</sup> and those in rural and remote areas; and lack of services for severely disabled (breathless) patients. Simple interventions such as educating patients on correct use of devices, vaccinations, and prompt treatment of infective exacerbations are not universally implemented. Patients with severe, end-stage airways disease often do not receive appropriate referral for oxygen therapy and frequently miss out on appropriate guidance and discussion of end-of-life issues.<sup>10</sup>

If these are the barriers to better outcomes for patients with obstructive lung disease, how do we overcome them?

Diagnosis is the doorway to effective management and hence improved clinical outcomes. However, for some breathless patients, the correct diagnosis is elusive. Cardiac failure, obesity, anaemia and general unfitness, as well as obstructive lung disease, may individually or collectively cause breathlessness in older patients. Spirometry is crucial to the diagnosis of obstructive lung disease and assessment of its severity, and yet few patients who present with breathlessness have an assessment that includes this procedure. For example, only 6% of general practice encounters for asthma among adults include an assessment of lung function.<sup>1</sup> The optimal mechanism for improving patients' access to spirometry is yet to be established.<sup>11</sup> Equipping, training and remunerating general practitioners for performing the procedure is one approach that has been tried<sup>12</sup> and may prove more effective as practice nurses are deployed more widely. The alternative is to improve accessibility of specialist pulmonary function laboratories. This latter approach has the advantage of high standards of quality control and linking the procedure to expert interpretation. We need translational research studies to identify the most effective strategy for ensuring that all patients with undiagnosed breathlessness or suspected obstructive lung disease have a valid and reliable objective assessment of their lung function.

In a substantial proportion of patients with obstructive lung disease, regular use of inhaled corticosteroids has been shown to be effective in improving a diverse range of clinical outcomes. In particular, patients with reversible airflow obstruction, eosinophilic inflammation,<sup>13</sup> severe airflow obstruction and frequent exacerbations gain significant benefits from regular inhaled corticosteroid use.<sup>14,15</sup> Research at the Australian Centre for Asthma Monitoring has shown that people who purchase inhaled corticosteroids at the concessional Pharmaceutical Benefits Scheme price are dispensed 2.5 times more prescriptions for these medications than those who pay the full (general beneficiary) price.<sup>16</sup> While some of this difference may indicate unnecessary or excessive use, it is clear that a scheme that makes drugs from this class available at a reduced price to those who are most likely to benefit from them and cannot currently afford them will result in substantial health gains.

Breathlessness is not only a distressing symptom but also a disabling one. People who are disabled due to breathlessness are poorly served in our community. Exercise-based pulmonary rehabilitation is one intervention that has been shown to help people with this problem. Although many tertiary care hospitals have established programs to deliver pulmonary rehabilitation, their location, predominantly in major centres, means that many people who stand to benefit from these programs cannot access them. We need improved transport services to bring severely breathless patients to the services they need. Surely this is more cost-effective

than trying to deliver individualised pulmonary rehabilitation in the home. People who are disabled by breathlessness, either temporarily during exacerbations or permanently, are often institutionalised because they cannot maintain their homes or perform self-care tasks unaided. Provision of enhanced home-help and self-care assistance would enable some of these people to fulfil their desire to stay at home and away from hospitals and other care institutions.

As National Asthma Week (1–7 September 2009) approaches, it is time to act now to adopt policies promoting a holistic, person-centred and problem-oriented approach to the care of older people with obstructive lung disease, whether it is labelled as asthma or COPD, or not labelled at all.

### Competing interests

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