

Understanding asthma in older Australians: a qualitative approach

Dianne P Goeman and Jo A Douglass

Although asthma is a common chronic disease among older people, it is often underdiagnosed and undertreated.¹ Moreover, the public health measures that have reduced asthma mortality rates in Australia, such as those instituted through the National Asthma Campaign (NAC), have been less successful in older people with asthma than in younger people.² The reasons for this are not clear, but it may be that effective interventions for older people with asthma differ from those for younger age groups. Our previous qualitative research reveals insights into some of the barriers to optimal asthma care for patients of all ages, and provides fertile ground for further research specifically focused on older people.

Barriers to optimal asthma care

In-depth interviews with people attending an emergency department for treatment of asthma revealed significant barriers to optimal asthma treatment.^{3,4} These barriers were frequently evident in older research participants, even among those who had a doctor from whom asthma care was usually sought.⁵ The barriers identified in older people include differences in symptom interpretation, difficulties in diagnosing asthma, access to asthma care, and use of asthma medications. All these areas are worthy of further study in older age groups.

Symptom interpretation

The physiological effects of ageing, comorbidities and health expectations may lead older people with asthma to interpret symptoms differently from younger people. One study found that elderly patients with long-standing asthma had more severe airway obstruction than those with recently acquired disease, but the former group complained less about their asthma symptoms.⁶ This suggests that people with long-standing symptoms might be less likely to recognise abnormalities in lung function. In addition, the expectation of "getting older" may also lead to diminished recognition of abnormal symptoms, as these may be thought of as a normal part of ageing.⁷ The presence of comorbid conditions is also likely to influence symptom recognition. Taken together, these findings suggest that there are obstacles to older people recognising asthma, identifying worsening asthma, and seeking urgent asthma care.

Our studies also suggest that many older people, particularly those with late-onset asthma, fail to identify breathing difficulties as asthma, because of their lack of prior experience. They may attribute symptoms to bronchitis, respiratory tract infection or even being unfit.⁸

ABSTRACT

What we need to know

- Are there differences in symptom interpretation in older people with asthma?
- What are effective drug delivery strategies in older people to maximise adherence and minimise side effects?
- How do older people with asthma manage their asthma? Are self-management strategies as appropriate as they are in younger age groups?
- Do older people with asthma take appropriate steps in an emergency? Do they own or act on asthma action plans?

What we need to do

- Identify the specific barriers that prevent the optimal care of older people with asthma.
- Address systematic barriers, such as cost and immobility, that reduce access to effective treatments.
- Ensure older people with asthma receive appropriate asthma treatment.
- Explore asthma self-management strategies in older people to develop effective algorithms.
- Educate health professionals to provide optimal asthma treatments and deliver appropriate education designed specifically for older people.

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... about every 2 to 3 months I was round the doctor's for antibiotics ... it was bronchitis, but it triggered the asthma ... I seemed to go from stages. From hay fever to sinus. From sinus to bronchitis and then from bronchitis to asthma ... my concept of asthma had always been somebody sort of struggling and gasping for their breath ... Whereas, I don't ... I haven't had that high pitched wheeze, [so] I think to myself, well, I can't really have asthma ... I get short of breath and that sort of thing, and I think to myself, well, I've just been overdoing it (woman, 60s).

Further, as chest pain or tightness is more common in the elderly and may mimic other diseases like ischaemic heart disease, undertaking tests (eg, spirometry or bronchoprovocation) is important.⁹

Often there is a reluctance on the part of older people to access emergency care because of a perception that they are not sufficiently deserving.⁸ In addition, there are differences in personal definitions of asthma and definitions of an asthma attack.⁸ In order to follow an asthma action plan, a person must correctly interpret their symptoms as asthma, and this is likely to be more difficult in older people with comorbidities. This means that the utility of symptom-based action plans in older people with asthma deserves further exploration.

Diagnosis of asthma

The diagnosis of asthma in older people presents a particular challenge,¹⁰ partly because of some of the factors already mentioned

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(differing symptom interpretation in older people, and increased frequency of comorbidities, such as cardiac disease, chronic bronchitis and chronic obstructive pulmonary disease). Symptoms of cough, chest tightness, a worsening of symptoms at night or during exercise could indicate asthma or be typical of cardiac disease.¹¹

I had no energy to do anything. I was completely exhausted and croupy and chesty and all that sort of thing. The doctor gave me antibiotics and then he sent me for all sorts of tests . . . he even sent me to a heart specialist (woman, 60s).

This diagnostic challenge is further compounded by the reduced reliability of normal predicted spirometry values in older age groups.¹² The development of an algorithm for the diagnosis of asthma in older people is likely to help with this and is an important future initiative.

Even once a correct diagnosis is made, we know that doctors treat older people differently from younger people. There is evidence that older people are less likely to receive an asthma action plan from their doctors,³ and that older people may be less accepting of self-management strategies in chronic illness.¹³ However, it does appear that older people are accepting of specific self-management education.¹⁴ Further research is needed to explore likely effective strategies for the treatment of older people with asthma.

Access to care

We have previously reported on the widespread personal and financial impact of asthma on the lives of individuals.⁴ In particular, asthma is associated with a significant burden for carers and family. The financial burden of asthma treatment and medication is significant for many people with asthma, but particularly so for older people because of their socioeconomic vulnerability. Asthma is also associated with lower socioeconomic status because of patients' loss of work opportunity, reduced choices for full-time work and, for some, loss of work resulting in financial hardship. These disadvantages are likely to be exaggerated in those with comorbidities, in whom the additional cost of visits to the doctor may also be an appreciable deterrent to seeking medical care. Thus, the financial consequences of asthma, while frequently an impediment to appropriate care,⁴ may be particularly evident in older people. In addition, impaired mobility in older people may further inhibit their seeking medical care. Such information might be gained from qualitative or quantitative studies, and addressing these issues will require substantial systematic change.

Medication use

A significant barrier to patients of all age groups adhering to asthma medication regimens is patient concerns about side effects.⁴ This may be particularly relevant in older people with asthma because of the physiological effects of ageing. For example, the adverse effects of β_2 -agonists, such as increased heart rate and tremor, are more noticeable in older age groups.¹⁵ This is likely to provide a direct disincentive to their use. Our studies have shown that concerns about taking corticosteroids are widespread among patients and linked to perceptions that they are related to osteoporosis.⁴ Increased awareness of conditions such as cataracts and osteoporosis is inevitable in older people and may magnify perceptions of these side effects.

Polypharmacy, which is common in older people, not only increases the risk of adverse outcomes and poor medication adher-

ence, but, in some cases, the medications used to treat comorbidities may even exacerbate asthma symptoms.¹¹

. . . it's masked with me so much, with other things. An inability to breathe, feeling puffed, that's daily life. So bad that I'm on medication for something and I'm really gasping for air as I just sit still . . . (man, late 50s).

The problems of poor medication adherence in older people (particularly in those with cognitive impairment, poor coordination or arthritis) are compounded by their difficulties using metered-dose inhaler devices. The use of spacers, particularly with preventive medication, can improve the delivery of asthma medications in older people. Further studies are needed to assess the clinical efficacy of such strategies and the effectiveness of standard methods of drug delivery in older people with reduced lung function and poor inspiratory flows. It is therefore advisable for general practitioners, pharmacists and asthma educators to undertake a regular review of medication device use in older patients with asthma.

Future research

We know a great deal about the barriers to receiving optimal care that confront people with asthma. Substantial investment to help people overcome these barriers has been effective in reducing asthma mortality overall. In older people, however, further research is needed to improve medication delivery and to understand the specific problems they have in accessing care. Qualitative studies in older people have revealed the personal and financial burden associated with asthma, problems with medication, and differences in the way older people with asthma utilise self-management strategies. These findings need to be explored further and interventions targeted for this age group.

Competing interests

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