New Zealand asthma guidelines updated

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The publication of the Asthma & Respiratory Foundation New Zealand child and adolescent asthma guidelines: a quick reference guide in the New Zealand Medical Journal today provides a much needed update of the New Zealand Paediatric Society’s guidelines published in 2005. The guidelines also complement the New Zealand adult asthma guidelines published in the New Zealand Medical Journal 12 months ago, which replaced those published by the New Zealand Guidelines Group in 2002. Together, these new guidelines provide simple and practical evidence-based recommendations for the diagnosis, assessment and management of asthma. It is worthwhile highlighting the similarities and differences between the adult and the child and adolescent guidelines, and what major changes have been made since the previous versions over a decade ago.

Diagnosis

Both recent guidelines emphasise that there is no single reliable ‘gold standard’ diagnostic test for asthma, and that the diagnosis of asthma is based on the recognition of characteristic patterns of symptoms and signs, which increase or decrease the probability of asthma. Key components of this probability-based approach are consideration of the response to treatment, and of alternative diagnoses, which may present in a similar way.

Asthma severity, control and future risk

Both guidelines have added the assessment of risk of future severe exacerbations as an important component of the clinical assessment, in addition to the evaluation of asthma severity and level of control. This is a practical way to identify patients within primary or secondary care, in whom more intensive management is warranted. Simple markers of this risk include measures of healthcare use such as a recent ED visit or hospital admission, repeat courses of oral steroids, frequent prescriptions for beta agonist inhalers, psychosocial problems and socioeconomic disadvantage.

Inhaled corticosteroid (ICS) regimens

Updated recommendations include when to initiate ICS treatment and preferred dosing regimens. In children, it is recommended to introduce ICS for those who have symptoms more than twice per week as previously, whereas for adults the previous threshold of symptoms or beta agonist use daily has been changed to symptoms at least twice per week, thereby aligning more closely to the childhood recommendations. In both age groups, a severe exacerbation in the previous 12 months is also an indication for ICS therapy. These evidence-based recommendations are tempered by the realisation that compliance is likely to be poor among those with infrequent symptoms. Importantly, the starting dose of ICS should be 100µg per day of fluticasone propionate (or equivalent) for children and 200µg per day (or equivalent) for adults. These recommendations reflect the evidence that there is no additional benefit from starting ICS therapy at higher doses. The lower doses for children are based on the different dose-response relationship of ICS compared with adults.

Stepwise approach to management

Central to the guidelines is the stepwise approach to pharmacological treatment in which patients step up treatment to achieve control and reduce the risk of exacerbation, and then step down after a period of prolonged control to find and maintain the lowest required step. This feature has been maintained from previous versions of the asthma guidelines and is a key feature of most national and international guidelines.
ICS/LABA therapy

Both guidelines now recommend changing to ICS/LABA treatment in patients not controlled on initial doses of ICS, rather than increasing the ICS dose as previously recommended. Two regimens are suggested: a fixed dose ICS/LABA with SABA for relief, or the SMART regimen in which a combination ICS/fast-onset LABA inhaler is used for both maintenance and reliever therapy. The adult guidelines recommend that the SMART regimen is preferred for patients at risk of severe exacerbations because it is more effective at reducing severe exacerbations than fixed dose ICS/LABA with SABA reliever therapy.8,9 The SMART regimen is not currently approved for use in children under 12 years in New Zealand so the children's guidelines primarily recommend fixed dose ICS/LABA treatment, with the SMART regimen as an option for older children. Since the SMART regimen is known to be more effective than fixed dose ICS/LABA regimens in children aged 4–17 years,10,11 this may be an area where adolescents could follow the adult guidelines. A major change from the previous guidelines is that separate ICS and LABAs inhalers are no longer recommended, due to the risks of LABA monotherapy in patients who are non-compliant with ICS.12

Action plans

As before, both guidelines recommend that children and adults with asthma should be provided with asthma self-management plans. Prescribers (and their patients) will be relieved that they no longer have to use one version for all patients, and there are now four prototype plans available from the Asthma & Respiratory Foundation website (www.asthmafoundation.org.nz). This allows prescribers to select a plan which best suits their patient's needs and medication regimen.

Acute severe asthma

Similar algorithms are provided for the management of acute severe asthma in childhood/adolescence and in adults, allowing for standardisation of the assessment and treatment of asthma across different ages. Key features include the assessment of severity on which the initial treatment is based, and repeat assessments of the response to treatment made over the following 60 minutes, to determine likely requirement for referral or admission to hospital.

Non-pharmacological measures

The child and adolescent guidelines place major emphasis on addressing other ways to help children with asthma. A top 10 checklist is provided, including issues such as tobacco smoking and other environmental exposures, poor housing, socioeconomic disadvantage, health literacy, access and continuity of care. These are undoubtedly important issues which also apply to adult asthma and need to be addressed if better outcomes are to be achieved and inequities reduced.

Treatable traits

A novel feature of the adult guidelines is the concept of treatable traits, which recognises that poor respiratory health in a person with asthma may not necessarily be due to their asthma, particularly if they are receiving ‘optimal treatment’, but may be due to some other reason, which requires investigation and treatment in its own right.13,14 Treatable traits can be broadly characterised into overlapping disorders such as COPD, bronchiectasis and vocal cord dysfunction, comorbidities such as chronic rhinosinusitis, depression and anxiety, environmental factors such as tobacco smoke and occupational exposures, and treatment factors such as poor adherence or poor inhaler technique. It would be reasonable to suggest that treatable traits are also an important consideration in the management of children and adolescents with asthma who have persistent symptoms despite optimal pharmacological treatment.

The authors of the child and adolescent asthma guidelines should be congratulated on their practical and evidence-based guidelines. The consistency and standardisation of the recommendations with the adult guidelines should allow a smooth transition in the management of patients as they progress from childhood to adolescence and then adult life. After a long wait, we now have guidelines for New Zealand children, adolescents and adults that are both up-to-date and fit-for-purpose. The challenge is now is to get their recommendations translated into clinical practice.
EDITORIAL

Competing interests:
Nil.

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