NPS MEDICINEWISE

PAEDIATRIC ASTHMA
Diagnosis and treatment

Practice Review
PBS and MBS data
April 2020

*For more information about this Practice Review and how to interpret your data, see **nps.org.au/pbs-paed-asthma***

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Your PBS and MBS data are provided confidentially to you only and are intended for personal reflection on your practice. **Data are not used for any regulatory auditing purposes.** For queries about your data or any of this information, contact NPS MedicineWise:
02 8217 8700 info@nps.org.au

14 April 2020

Dear Dr Sample,

NPS MedicineWise routinely sends Practice Reviews with a focus on quality use of medicines and medical tests to clinicians to support continuing quality improvement.

This individualised Practice Review is part of our current national program Paediatric asthma and has been developed in collaboration with GPs and sent to approximately 30,000 prescribers across Australia. It focuses on the management of asthma for children aged 1–11 years. We recognise that prescribers who treat very small numbers of children in this age group with asthma will receive minimal individual data. However, we hope that the points for reflection will be of value to you.

This review considers prescribing of short-acting beta$_2$ agonists (SABAs), montelukast, inhaled corticosteroids (ICS) and ICS + long-acting beta$_2$ agonists (LABAs) fixed-dose combinations.

Spirometry is important for diagnosing asthma and can be reliably performed in most children aged 6 years and over
Asthma is common in children, affecting 10% of children aged less than 15 years,[1] but making an accurate diagnosis can be challenging. The Australian Asthma Handbook highlights that spirometry should be performed to support an asthma diagnosis for children aged 6 years and over.[2] Most children aged 1–5 years cannot perform spirometry reliably, and for this group, provisional diagnoses of asthma are made, based on history, symptoms, physical examination and treatment trial.[2]

Low-dose ICS is the first-line preventer for children with asthma
Most children who need a preventer medicine will have well-controlled asthma using a low-dose ICS inhaler (or montelukast).[2] However a 2015 post-market review found that 40% of children prescribed an ICS + LABA fixed-dose combination were not initially prescribed an ICS.[3] While ICS + LABA fixed-dose combination inhalers are often perceived to be safe and convenient, the potential adverse effects of the LABA, such as reduced bronchodilator sensitivity to beta$_2$ agonists and masking of patients' awareness of worsening asthma, also need to be considered.[4] Australian guidelines recommend reserving ICS + LABA fixed-dose combination inhalers for children 6 years and over who require a step up in treatment from low-dose ICS inhaler.[2]

How else can NPS MedicineWise support you?
To learn more about diagnosing and managing asthma in children, see **nps.org.au/professionals/paediatric-asthma** to:
- book an educational visit or a small group visit (available as a virtual visit via video call)
- access the MedicineWise News: *Spirometry and its role in diagnosing children's asthma* and other asthma resources and links.

You may have read in the media about changes to international asthma management recommendations, particularly those on the place of SABA alone in the treatment for adolescents and adults with asthma. This Practice Review does not cover these changes. Find information on any changes to Australian asthma guidelines as they happen at **nps.org.au**.

Yours sincerely,

Steve Morris
Chief Executive Officer
NPS MedicineWise

COVID-19 and asthma
See **nationalasthma.org.au** for current advice including use of spirometry and nebulisers.
Ensure patients have an up-to-date asthma action plan.

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How to use your confidential Practice Review

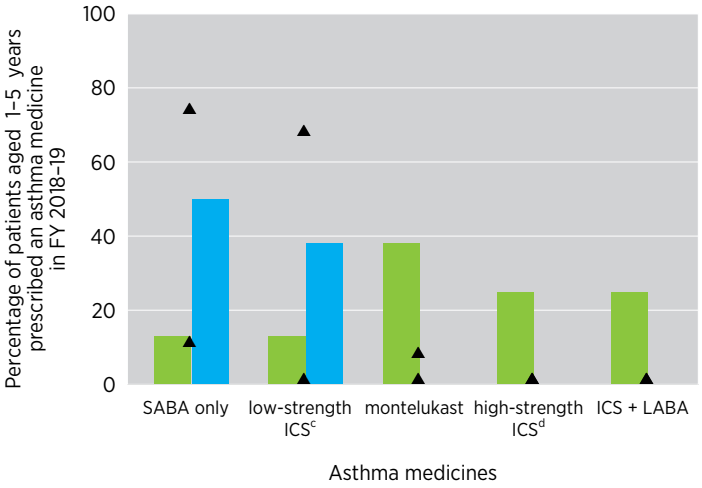
This Practice Review is intended to support your professional development in the management of children with asthma by providing an overview of current best practice recommendations alongside your individual prescribing and referral data. It is also an opportunity for you to see how your practice compares with that of your peers and with national guidelines.

It is important to recognise that your patient population may not be directly comparable to that of your RA[b] comparator – consider your practice profile and your patients' indications for treatment when reflecting on these data. Note that the reason for prescribing cannot be determined from PBS data.

The data are not used for any regulatory auditing purposes and NPS MedicineWise provides this information for your reflection only. The data are from Services Australia (formerly Australian Government Department of Human Services) and include MBS claims for spirometry performed for your patients currently aged 6–11 years and PBS prescriptions for asthma medicines that you prescribed and that were dispensed for children aged 1–11 years. Asthma medicines included in this report are:

- SABA: salbutamol, terbutaline. Note: over-the-counter salbutamol will not be captured
- ICS: beclometasone, budesonide, ciclesonide, fluticasone
- ICS + LABA fixed-dose combinations: budesonide + formoterol, fluticasone + formoterol, fluticasone + salmeterol
- montelukast (some brands are now discontinued. Data in this report represent dispensing up until 30 June 2019).

What asthma medicines did you prescribe for your patients aged 1–5 years in FY 2018–19?

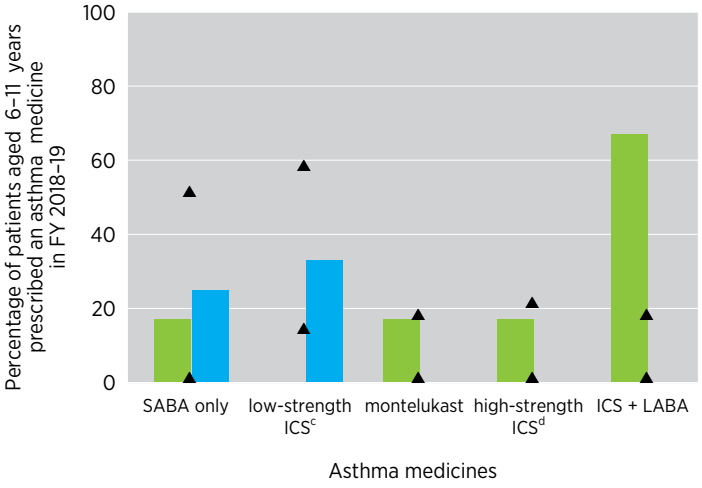


In FY 2018–19, **91 children** aged 1–5 years had one or more Medicare consultations with you. Of these, **8 (9%)** were prescribed one or more asthma medicines by you.

Points for reflection

- Most children with asthma aged 1–5 years have infrequent intermittent asthma with mild flare-ups that can be managed with SABA only.[2]
- While children with recurrent asthma symptoms or moderate to severe flare-ups need a regular preventer, the majority require low-dose ICS.[2] Very few children aged 1–5 years require high-dose ICS.[2]
- ICS + LABA fixed-dose combination inhalers are not recommended for children under 6 years, due to safety concerns and lack of evidence for efficacy.[5]
- Seek specialist advice about children aged 1–5 years whose asthma is not well controlled on low-dose ICS with montelukast, or high-dose ICS.[2]

What asthma medicines did you prescribe for your patients aged 6–11 years in FY 2018–19?



In FY 2018–19, **84 children** aged 6–11 years had one or more Medicare consultations with you. Of these, **8 (10%)** were prescribed one or more asthma medicines by you.

Points for reflection

- Many children with asthma aged 6–11 years only require as-needed SABA reliever treatment.[2]
- Reserve regular preventer treatment for children with frequent symptoms and/or a history of moderate to severe flare-ups.[2]
- Where asthma cannot be well controlled on low-dose ICS (or montelukast) step-up options include low-dose ICS + montelukast, high paediatric dose ICS, or ICS + LABA fixed-dose combination inhalers.[2]
- Consider a gradual dose reduction in preventer treatment if symptoms have been well controlled for at least 6 months. The aim of stepping down is to find the lowest effective dose needed to maintain good symptom control, prevent flare-ups and minimise the risk of adverse effects.[2]

You

Median of GPs in your RA[b] who prescribed one or more asthma medicines for children (ages as per graph)

▲ 25th/75th percentile of GPs in your RA[b]

Note:
- The preventer medicines may be with or without SABA
- As patients may be in more than 1 group, sum of percentages may exceed 100%.

Abbreviations used in this report	
SABA:	short-acting $beta_2$ agonists
ICS:	inhaled corticosteroids
LABA:	long-acting $beta_2$ agonists

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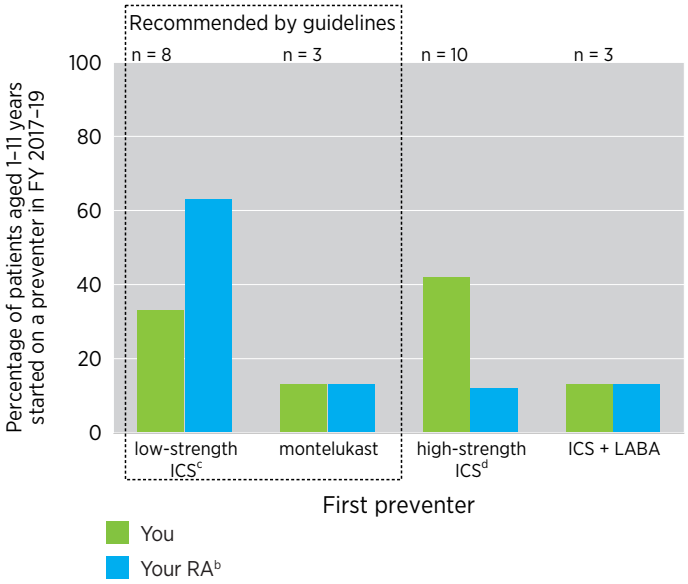
Choosing Wisely Australia
An initiative of NPS MedicineWise

The Thoracic Society of Australia and New Zealand through Choosing Wisely Australia, recommends:
Do not prescribe combination therapy (inhaled corticosteroids with long-acting beta$_2$ agonist) as initial therapy in mild to moderate asthma before a trial of inhaled corticosteroids alone.
See choosingwisely.org.au/recommendations/tsanz

What was the first preventer you prescribed for your patients aged 1–11 years in FY 2017–19?



Note:
- n = number of patients (aged 1–11 years) started on a preventer medicine in FY 2017–19 by you.
- Patients are included if they were dispensed a preventer during FY 2017–19 that was prescribed by you and they were not dispensed any preventer medicines in the previous 12 months prescribed by any provider.
- Due to rounding, and where patients started treatment with more than one preventer, sum of percentages may exceed 100%.

Points for reflection

- If regular preventer treatment is required, guidelines recommend prescribing low-dose ICS (or montelukast) as the initial preventer for children aged 1–11.[2,6] Most patients will be able to achieve good asthma control at this step.
- Assess response to preventer treatment after 4–6 weeks and adjust treatment depending on the child's age.[5]
- Step up treatment for children whose asthma remains poorly controlled despite good adherence and correct inhaler technique.[2]
- Check adherence and inhaler technique at each visit.

Do you use spirometry to support asthma diagnoses for your patients aged 6–11 years?

PBS	Total number of all your patients aged 6–11 years prescribed an asthma medicine by you in FY 2018–19	MBS	Total number of all your patients aged 6–11 years seen by you in FY 2018–19 who have had spirometry (ever, by any provider)
	8		**8**

All children prescribed an asthma medicine who can reliably perform spirometry (typically those 6 years or older) should have spirometry to support an asthma diagnosis. Data above include patients where spirometry was performed to help exclude a diagnosis of asthma.

Points for reflection

- Use spirometry to support asthma diagnoses where possible, including for children provisionally diagnosed at ages less than 6 years – most children aged 6 years or older are able to perform spirometry reliably.[2]
- Consider how your practice can optimise use of spirometry as a tool to support asthma diagnoses.
- Discuss what to expect from spirometry with children and their carers, how they should prepare for it and what the results mean. See our 'Getting children ready for spirometry' factsheet available at: nps.org.au/professionals/paediatric-asthma#resources

Note: Because of data restrictions, PBS data and MBS data cannot be linked together.

What does this mean for me?

- Do I always select a low-dose ICS inhaler when starting my patients on preventer treatment?
- What is my approach to stepping up and stepping down asthma treatment for children and do I communicate this through individualised written asthma action plans?
- **COVID-19 and asthma - see nationalasthma.org.au for current advice including use of spirometry.**

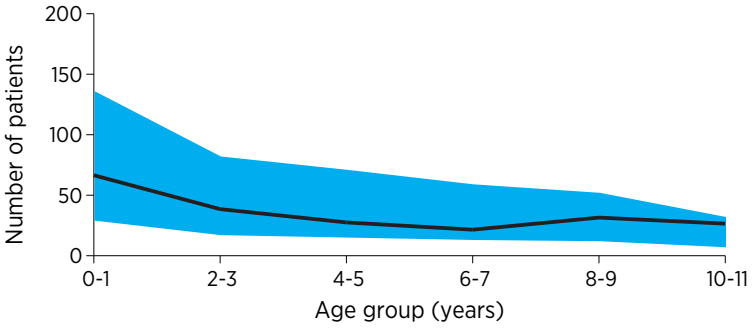
Abbreviations used in this report	
SABA:	short-acting beta$_2$ agonists
ICS:	inhaled corticosteroids
LABA:	long-acting beta$_2$ agonists

Practice profile

This practice profile is provided to help you interpret your prescribing and referral data.

Your RA[b] peer group is Major City

Age profile of your patients aged 1–11 years
1 July 2018 to 30 June 2019



The black line represents the age profile of your patients. The shaded area lies between the 25th and 75th percentile for GPs in your RA.[b]
*Data values are outside the range of the graph

Your Medicare patients and concession card holders aged 1–11 years
1 July 2018 to 30 June 2019

Patients	You	Median of GPs in your RA[b]
Total Medicare	**177**	**191**
Concession card holders Includes those reaching Safety Net	**22**	**10**

Notes

a. Data shown are an aggregate of all your provider locations.

b. The comparator group 'RA' includes all general practitioners currently located in a similar geographical location.

c. Inhaled low-strength ICS: beclometasone 50 micrograms, 100 micrograms, budesonide 100 micrograms, 200 micrograms, ciclesonide 80 micrograms, fluticasone 50 micrograms, 100 micrograms.

d. Inhaled high-strength ICS: budesonide 400 micrograms, ciclesonide 160 micrograms, fluticasone 125 micrograms, 250 micrograms, 500 micrograms.

References

1. Australian Institute of Health and Welfare. Asthma snapshot (web report). Canberra: AIHW, 2018. https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma/contents/asthma (accessed 4 February 2020).
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3. Pharmaceutical Benefits Scheme. Post-market review of Pharmaceutical Benefits Scheme medicines used to treat asthma in children. Canberra: Australian Government Department of Health, 2015. http://www.pbs.gov.au/info/reviews/asthma-children-reviews (accessed 18 December 2019).
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5. Australian Medicines Handbook. Adelaide: AMH Pty Ltd, 2019. https://amhonline.amh.net.au/ (accessed 19 November 2019).
6. Respiratory Expert Group. Therapeutic Guidelines: Respiratory. Version 5. West Melbourne: Therapeutic Guidelines Ltd, 2015, https://tgldcdp.tg.org.au/topicTeaser?guidelinePage=Respiratory&etgAccess=true (accessed 29 January 2020).

Updating your details

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Log in to your Health Professional Online Services (HPOS) account
https://www.servicesaustralia.gov.au/organisations/health-professionals/services/medicare/hpos

Send your full name, provider number and new preferred mailing address to provider.registration@servicesaustralia.gov.au from a personal email address that clearly identifies you, or is the email address stored on the Medicare Provider Directory.