Educating adults and adolescents to manage their asthma

See also

Selecting inhalers for adults and adolescents

Definition of exacerbations

Recommendation

Provide or arrange education in asthma self-management.

Include:

- information about avoiding or managing triggers
- information and training on self-monitoring of asthma symptom control and risk
- training in correct inhaler technique
- a written asthma action plan
- information on the importance of regular medical review.

Sources & rationale

Recommendation type: Consensus recommendation

Rates of hospitalisation, ED visits, urgent health care, and school or work absence due to asthma are markedly reduced by asthma education that includes training to monitor symptoms (with or without lung function monitoring by measuring PEF) and a written asthma action plan, together with regular asthma by a health professional.[GINA 2025]

References

Global Initiative for Asthma (GINA). Global strategy for asthma management and prevention, 2025. Available from: www.ginasthma.org

Resources

Asthma Australia’s information and support for patients

Recommendation

Develop an individualised written asthma action plan for every adult or adolescent with asthma.

Make sure that the plan is appropriate for the person's treatment regimen, degree of risk for severe exacerbations, culture, language, literacy level, and ability to self-manage.

A written asthma action plan should include:

- the person's usual asthma and allergy medicines
- clear instructions on how to adjust medication when symptoms are worsening, including increased reliever doses, and when and how to start a course of oral corticosteroids
- when and how to get medical care, including during an emergency
- name of the person preparing the plan
- the date.

Sources & rationale

Recommendation type: Consensus recommendation

An individualised written asthma action plan, with instructions on how to recognise worsening asthma and respond appropriately, is an essential component of effective self-management education for people with asthma.[GINA 2025]

Supported self-management that includes education, provision of an action plan, and the support of regular professional review, can reduce rates of hospitalisation, ED visits and urgent medical care among people with asthma.[Pinnock 2017] However, there is insufficient high-quality RCT evidence from which to draw conclusions about benefits of asthma action plans compared with care that does not include an action plan, or asthma education plus an action plan compared with education alone.[Gatheral 2017]

Adjusting reliever doses when symptoms increase in frequency or severity

For patients using budesonide-formoterol 200/6 microg as reliever, with no maintenance treatment, the action plan should instruct them to keep using their usual dose of inhaler whenever they experience symptoms, up to the daily maximum of 12 inhalations in a day. The action plan should instruct them to see their doctor or go to the emergency department if they need more than 12 inhalations in one day.

For patients using ICS-formoterol (budesonide-formoterol or beclometasone-formoterol) as maintenance treatment and also as reliever ('maintenance-and-reliever therapy'; MART), the action plan should instruct them to keep using their usual dose of inhaler whenever they experience symptoms, up to the daily maximum for their inhaler type. The action plan should instruct them to see their doctor or go to the emergency department if they need more than the maximum number of inhalations in one day.

For patients using salbutamol as their reliever, the action plan should instruct them to increase from their usual dose (e.g. 1 or 2 inhalations) to a higher dose (e.g. 4–6 inhalations) on each occasion that symptoms occur.

For patients using a fixed daily dose of maintenance ICS or ICS-LABA (with salbutamol as needed), adjustment of the maintenance dose is not recommended.

Self-initiated oral corticosteroids

Asthma action plans for adults and adolescents should include clear instructions on when to start a short course of oral corticosteroids:

- adults: prednisone/prednisolone 37.5–50 mg within 1 hour of presentation, then each morning (total 5–10 days)
- adolescents: prednisone/prednisolone 1 mg/kg (maximum 50 mg) orally once daily for 3 days.

Management of worsening asthma symptoms must balance avoidance of cumulative adverse effects of multiple courses of oral corticosteroids[Price 2018] with risks of inadequately treated asthma exacerbations.

Action plans for patients using budesonide-formoterol as maintenance and reliever typically include an instruction to start prednisolone/prednisone if, over 2–3 days, asthma symptoms are worsening/failing to improve or the person is using >6 reliever inhalations of budesonide 200 microg plus formoterol 6 microg via DPI (or >6 reliever inhalations of budesonide 100 microg plus formoterol 3 microg via pMDI) per day.

Action plans for patients using SABA reliever typically include an instruction to start prednisolone/prednisone if needing reliever again within 3 hours, increasing difficulty breathing, or waking often at night with asthma symptoms.

Prednisone/prednisolone doses for adults are based on studies conducted in patients with asthma exacerbations presenting emergency departments.[Rowe 2001, Rowe 2007, Rowe 2017] Doses for adolescents are based on studies in children.[Normansell 2016, Chang 2008] Tapering the dose is not necessary for short courses.[O'Driscoll 1993]

References

Chang, A B, Clark, R, Sloots, T P, et al. A 5- versus 3-day course of oral corticosteroids for children with asthma exacerbations who are not hospitalised: a randomised controlled trial. Med J Aust 2008; 189: 306-310.

Gatheral TL, Rushton A, Evans DJ, et al. Personalised asthma action plans for adults with asthma. Cochrane Database Syst Rev 2017; 4: CD011859.

Global Initiative for Asthma (GINA). Global strategy for asthma management and prevention, 2025. Available from: www.ginasthma.org

Normansell R, Kew KM, Mansour G. Different oral corticosteroid regimens for acute asthma. Cochrane Database Syst Rev 2016; Issue 5: CD011801.

O'Driscoll BR, Kalra S, Wilson M, et al. Double-blind trial of steroid tapering in acute asthma. Lancet 1993; 341: 324-327.

Pinnock H, Parke HL, Panagioti M, et al. Systematic meta-review of supported self-management for asthma: a healthcare perspective. BMC Med 2017; 15: 64.

Price DB, Trudo F, Voorham J, et al. Adverse outcomes from initiation of systemic corticosteroids for asthma: long-term observational study. J Asthma Allergy 2018; 11: 193-204.

Rowe BH, Kirkland SW, Vandermeer B et al. Prioritizing systemic corticosteroid treatments to mitigate relapse in adults with acute asthma: a systematic review and network meta-analysis. Acad Emerg Med 2017; 24: 371-81.

Rowe BH, Spooner C, Ducharme F, et al. Early emergency department treatment of acute asthma with systemic corticosteroids. Cochrane Database Syst Rev 2001; Issue 1: CD002178.

Resources

National Asthma Council Australia's action plan resources

Notes

Prescribers should avoid supplying parents with more prednisone/prednisolone than needed for the course. Prescribers may write PBS scripts for less than the maximum quantity and number of repeats permitted if a lesser quantity is sufficient for the patient's requirements.

Consideration

For patients who are not comfortable reading health information in English, provide or refer them to asthma information in their preferred language.

Sources & rationale

Recommendation type: Consensus recommendation

Resources

National Asthma Council Australia's library of asthma action plan templates translated into community languages

Asthma Australia's translated asthma resources

Practice point

Aim to engage an adult or adolescent in managing their asthma.

Practice point

Gauge the person's ability to manage their asthma.

Practice point

Self-management education should be appropriate to the patient's age, culture, first language, literacy level, and ability to self-manage.

Resources

National Asthma Council Australia's library of asthma action plan templates translated into community languages

https://www.nationalasthma.org.au/health-professionals/asthma-action-plans/translated-action-plans

Asthma Australia's translated asthma resources

https://asthma.org.au/translated-resources/

Practice point

For adolescents, encourage self-management and provide support and education appropriate to the individual's stage of psychosocial development and preferred mode (e.g. online information, an electronic written asthma action plan). Repeat the key information at each visit.

Practice point

For adolescents, carefully check the patient's understanding of their asthma and its treatment – do not assume parents' good management of a child's asthma will automatically continue into adolescence and young adulthood.

Practice point

For an older adolescent has been treated by a paediatric respiratory physician, arrange a new referral to a respiratory physician who treats adults, when appropriate. Discuss the transition to adult health care and check that the young person is satisfied with the adult services.

Practice point

For older adults, assess comorbidity, risk factors and psychosocial factors that may affect asthma control and self-management (e.g. poor eyesight, hearing loss, poor coordination, osteoarthritis, cognitive impairment and other mental health conditions).

Practice point

Emphasise that patients should make an appointment for an asthma review if asthma symptom control is partial or poor over several weeks (e.g. daytime symptoms more than 2 days per week, any limitation of activities due to asthma, and any symptoms during the night or on waking).

Practice point

The instructions in a patient's individual asthma action plan depend on their current treatment regimen and risk factors.

Resources

Table

Guide to writing asthma action plans for adults and adolescents

Current treatment regimen	Adjustments when symptoms worsening (more frequent or more severe)*		
	Reliever dose	**Maintenance dose**	**Systemic corticosteroid**
AIR-only Budesonide-formoterol as needed	Principle: Increase by taking usual dose as needed.	Principle: ICS dose will automatically increase as patient uses more reliever doses	Principle: required to prevent severe exacerbation at onset of worsening symptoms beyond threshold set for individual patient based on risk and exacerbation history. Adults prednisone/prednisolone 37.5–50 mg within 1 hour of presentation, then each morning (total 5–10 days) Adolescents: prednisone/prednisolone 1 mg/kg (maximum 50 mg) orally once daily for 3 days. Sample instruction: *Start prednisolone tablets if symptoms recur less than 4 hours after using reliever or symptoms do not improve after reliever.*
	Sample instruction for patient using 200/6 microg as needed: *Keep taking usual dose (1 inhalation) when symptoms occur. Repeat if symptoms do not improve or if symptoms recur.* *See doctor or go to the emergency department if you need more than 12 inhalations in one day.*	Sample instruction: *Keep taking usual daily dose(s).*	
MART ICS-formoterol	Principle: Increase by taking usual dose as needed.	Principle: ICS dose will automatically increase as patient uses more reliever doses	
	Sample instruction: *Keep taking usual dose when symptoms occur. Repeat if symptoms do not improve or if symptoms recur.* *See doctor or go to the emergency department if you need more than* [specified maximum] *inhalations in one day.*	Sample instruction: *Keep taking usual daily dose(s)*	
ICS-LABA maintenance treatment plus	Principle: Increase dose taken on each occasion	Principle: Short-term self-initiated ICS or ICS-LABA increases	

SABA reliever as needed		are not recommended	
	Sample instruction for patient whose usual dose is salbutamol (100 microg/actuation) 1–2 inhalations via pMDI when symptoms occur: *Use a spacer. Take 4–6 puffs, one puff at a time.* *If symptoms do not improve within a few minutes, take 4–6 more puffs.* *If you need reliever again within 4 hours, contact your doctor same day.*	Sample instruction: *Keep taking usual daily dose(s).*	

Additional information

AIR: anti-inflammatory reliever; ICS: inhaled corticosteroids; LABA: long-acting beta$_2$ agonist; MART: maintenance-and-reliever therapy with budesonide-formoterol or beclometasone-formoterol; SABA: short-acting beta$_2$ agonist (salbutamol or terbutaline)

*Table shows only sample adjustments for reliever and maintenance ICS-based treatment when asthma symptoms worsening. Asthma action plans also include other usual treatment such as medicines for comorbid allergic rhinitis, emergency instructions including when to call an ambulance, and instructions according to individual triggers and comorbidity (e.g. when to use adrenaline auto-injector)

National Asthma Council Australia's library of asthma action plan templates

https://www.nationalasthma.org.au/health-professionals/asthma-action-plans/asthma-action-plan-library

Practice point

Verbal information and asthma action plans should advise patients to get emergency medical care immediately if they experience danger signs.

Practice point

The patient and their family should know that they must call an ambulance and give asthma first aid if any of these occur:

- **severe breathing problems**
- **symptoms get worse very quickly**
- **reliever has little or no effect**
- **difficulty saying sentences**
- **blue lips**
- **drowsiness.**

Practice point

For patients with a history of anaphylaxis or relevant allergies, provide a written anaphylaxis plan.

Resources

ASCIA's Action plans and first aid plans for anaphylaxis

https://www.allergy.org.au/hp/anaphylaxis/ascia-action-plan-for-anaphylaxis

Practice point

Consider providing a written asthma action plan in the patient's first language, if not English.

Resources

National Asthma Council Australia's library of asthma action plans in community languages
https://www.nationalasthma.org.au/health-professionals/asthma-action-plans/translated-action-plans

Practice point

Ensure the patient has a prescription for any medicines they may need to follow their action plan (e.g. prednisone/prednisolone). Explain which medicines they should have available at all times, or when to fill prescriptions to have medicines available (e.g. before travel).

Practice point

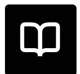
Prevent overuse of oral corticosteroids. Consider writing a PBS script for the precise number of tablets needed for one course, with no repeats.

Practice point

The decision whether to advise patients/parents to keep the medicine ready to use if instructed by the written asthma action plan, or only if instructed by a health professional after clinical assessment, depends on the patient's age, ability to self-management, and access to a pharmacy.

Practice point

For younger adolescents, assessment by a GP or virtual emergency consultation service is generally recommended before starting a short course of oral corticosteroids.



Practice point

Review the written asthma action plan every year, and whenever there is a significant change in treatment or asthma status.

Practice point

When reviewing a written asthma action plan, consider the following:

- **Does the person know where their written asthma action plan is?**
- **Have they used it? If so, could they follow the instructions easily?**
- **Are listed medicines and instruction for actions current and appropriate?**
- **Are contact details for medical care and acute care up to date?**

Practice point

For people unable to read a written asthma action plan easily due to poor eyesight, or when a written plan is otherwise inappropriate, consider a pictorial action plan.