
Acute Paediatric Asthma and Anaphylaxis

Safer Care Victoria Practice Point

OFFICIAL

Purpose

This Safer Care Victoria (SCV) Practice Point supports healthcare providers both in and out of acute care hospital settings in the early recognition and urgent management of acute anaphylaxis in infants, children and adolescents (16 years and under), including where symptoms overlap with acute asthma.

This document endorses the use of established paediatric clinical guidelines, including:

- [ASCIA Acute Management of Anaphylaxis Guidelines](#)
- [Australian Commission on Safety and Quality in Health Care Acute Anaphylaxis Clinical Care Standard](#)
- [Royal Children's Hospital Clinical Practice Guideline: Anaphylaxis](#)

Key Practice Points

- Early recognition and prompt treatment of anaphylaxis are critical. Delayed diagnosis or delayed administration of adrenaline increases the risk of severe harm and death.
- Anaphylaxis with bronchospasm may closely mimic life-threatening asthma, particularly in food-related reactions, but can occur with any allergen.
- Respiratory arrest due to bronchospasm is the most common cause of death in food-related and non-perioperative drug anaphylaxis, particularly in patients with pre-existing asthma.
- Sudden wheeze or unexplained wheeze may indicate anaphylaxis and should be managed as such until excluded.
- Adrenaline is the first-line, life-saving treatment for anaphylaxis, including bronchospasm and respiratory compromise. Where there is diagnostic uncertainty, manage as anaphylaxis.
- Adrenaline is also lifesaving in severe bronchospasm where asthma and anaphylaxis cannot be clearly distinguished.
- Bronchodilators and other asthma therapies are adjunctive only and must not delay administration of adrenaline.
- All patients treated for anaphylaxis should not stand or walk during or shortly after an anaphylactic reaction; position the patient flat or seated with legs extended, as clinically appropriate.
- All patients treated for anaphylaxis require observation for at least 4 hours after the last dose of adrenaline. Extended observation (minimum 12 hours) is recommended for severe, persistent, or recurrent reactions.
- Poorly controlled asthma significantly increases the risk of fatal outcomes and should be reviewed before discharge following any acute allergic reaction or anaphylaxis.

Definition and Clinical Features

Anaphylaxis is a severe, potentially life-threatening allergic reaction requiring immediate treatment. Diagnosis is clinical and presentations may vary.

In children, respiratory symptoms are rapid, common and may include:

- Wheeze
- Inability to swallow saliva / tongue discomfort
- Persistent cough
- Bronchospasm
- Increased work of breathing
- Hypoxia

Children with food allergy and co-existing asthma are at increased risk of severe or fatal anaphylaxis. Anaphylaxis with bronchospasm can closely mimic severe asthma, particularly in food-triggered reactions.

The most common cause of death in food-related and non-perioperative medication anaphylaxis is respiratory arrest due to bronchospasm, particularly in people with pre-existing asthma.

Clinical considerations:

- Sudden wheeze or unexplained wheeze may indicate anaphylaxis and should be managed as such until excluded.
- Bronchospasm in anaphylaxis should be treated first with IM adrenaline.
- Asthma therapies (including bronchodilators) should only be used as adjuncts after adrenaline.
- Asthma control should be reviewed before discharge in all children presenting with allergic reactions or anaphylaxis.

Causes and triggers

In children and adolescents, food is the most common trigger for anaphylaxis. Up to 20% of cases have no identifiable cause (idiopathic anaphylaxis).

Other causes in children include:

- Food: peanuts, tree nuts, cow's milk, egg, wheat, fish, shellfish, soy
- Bites and stings: bees, ticks, wasps, ants
- Medications: antibiotics, NSAIDs, chemotherapeutic agents, monoclonal antibodies
- Other: exercise, latex, mammalian meat

Risk factors for severe or fatal anaphylaxis:

- Delay in administering or repeating adrenaline
- Poorly controlled or unstable asthma
- Allergy to nuts, shellfish, medications or insect venom
- Pre-existing respiratory or cardiac disease
- Idiopathic anaphylaxis or unknown trigger

Reporting Anaphylaxis in Victoria

Victorian **public** and **private hospitals** are legally required to notify the Department of Health of anaphylaxis presentations:

- Where the trigger for the anaphylaxis is packaged food, the episode must be reported immediately using the notification form.
- Where the cause of anaphylaxis is not packaged food, the episode should be reported online within 5 days of diagnosis.

Hospitals and health care services should also have established protocols to ensure that:

- Missed or delayed recognition of anaphylaxis is reported as an adverse event (where required)
- Specific allergen incidents are also reported to TGA and other relevant bodies (if appropriate)

For more information on reporting see:

- Anaphylaxis notifications <https://www.health.vic.gov.au/public-health/anaphylaxis-notifications>
- Anaphylaxis notifications guidance for Victorian Hospitals <https://www.health.vic.gov.au/publications/anaphylaxis-notifications-guidance-for-victorian-hospitals>
- Sentinel Event notification: <https://www.safercare.vic.gov.au/report-manage-issues/sentinel-events>

Health Service Responsibilities

Health services should maintain:

- Clear anaphylaxis policies and escalation pathways
- Staff training and preparedness programs
- Systems supporting rapid access to adrenaline

Hospitals should ensure:

- Patients' own adrenaline autoinjectors remain accessible
- ASCIA Action Plans accompany the device
- Devices are in-date and functional
- Allergy risks are clearly documented and communicated to all treating staff

Patients and carers should understand how to respond to anaphylaxis within the healthcare setting.

Key Resources

Clinical Guidance:

- [RCH Clinical Practice Guideline: Anaphylaxis](#)
- [RCH Clinical Practice Guideline: Acute Asthma](#)
- [ASCIA Acute Management Guidelines](#)
- [ANZCOR Paediatric Advanced Life Support](#)