Clinical Practice Guidelines: Respiratory/Asthma

Policy code	CPG_RE_AS_0326
Date	March, 2026
Purpose	To ensure consistent management of patients with asthma.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
Source of funding	Internal – 100%
Author	Clinical Quality & Patient Safety Unit, QAS
Review date	March, 2029
Information security	UNCLASSIFIED – Queensland Government Information Security Classification Framework.
URL	https://ambulance.qld.gov.au/clinical.html

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Asthma

March, 2026

Asthma is an obstructive respiratory disease characterised by chronic airway inflammation, bronchial hyperresponsiveness and intermittent airway narrowing.[1] In clinical practice, it is defined by the presence of both respiratory symptoms (e.g. wheeze, dyspnoea, chest tightness or cough) and excessive variation in lung function.[2,3]

Asthma is estimated to affect 11% of Australia's population and is prevalent in both paediatric and adult cohorts.[4] Typically, the clinical features of asthma may lay dormant when well managed however episodic exacerbations may occur in response to:[5–6]

- Allergen or irritant exposure
- Exercise
- Respiratory (viral) infections
- Poor compliance with prescribed medications
- Extreme weather events ('thunderstorm asthma').

There is no standardised criteria or single test that can be used to diagnose asthma; diagnosis is probability driven and based on:

- Respiratory symptoms
- Variation in expiratory airflow
- Physical examination
- Past medical history
- Exclusion of other diagnoses

Clinical features

- Wheeze
- Dyspnoea
- Chest tightness or cough
- Tachypnoea
- Tachycardia
- Accessory muscle usage
- Diaphoresis
- Cyanosis (late sign)

Acute asthma is classified into three severity categories:

1. Mild/moderate
2. Severe or
3. Life-threatening.

Clinical features *(cont.)*

Clinical Feature	Mild/Moderate	Severe *(any of the following)*	Life-threatening *(any of the following)*
Conscious State	Alert	Altered	Altered or unconscious
General Appearance	Mildly anxious	Distressed, agitated	Exhausted, catatonic
Speech	Sentences	Words	Unable to speak
Ventilatory Rate	< 25/min in adults ≤ 30/min in paediatrics > 5 years ≤ 40/min in paediatrics 2–5 years	> 25/min in adults > 30/min in paediatrics > 5 years > 40/min in paediatrics 2–5 years	Silent chest
Ventilatory Rhythm	Slightly prolonged expiratory phase	Marked prolonged expiratory phase	Marked prolonged expiratory phase, no respiratory pause
Ventilatory Effort	Accessory muscle use	Accessory muscle use, intercostal retraction, tracheal tugging	Poor respiratory effort; respiratory exhaustion
Skin	Pale	Pale, sweating	Pale, sweating, cyanosis (late sign)
Pulse Rate	≤ 110/min in adults ≤ 120/min in paediatrics > 5 years ≤ 140/min in paediatrics 2–5 years	> 110/min in adults > 120/min in paediatrics > 5 years > 140/min in paediatrics 2–5 years	Hypotension/bradycardia, arrythmia
Breath Sounds	Expiratory wheeze	Expiratory wheeze, inspiratory wheeze	Expiratory wheeze, inspiratory wheeze,
O2 Saturation	> 94%	< 90% – 94%	< 90%

Risk assessment

- Respiratory symptoms such as dyspnoea and wheezing are non-specific indications of asthma. Consider differential diagnoses such as cardiac failure, chronic obstructive pulmonary disease, foreign body or smoke inhalation in patients with no prior history of asthma.
- Pulse oximetry on its own is not a reliable indicator of asthma severity and cannot be used to determine improvement in clinical condition. It must always be considered in conjunction with other relevant clinical features.
- Patients presenting with acute asthma may deteriorate rapidly without any warning of sudden clinical decline.
- If IPPV is required, care should be taken to ensure the patient is not over-ventilated by allowing for a prolonged expiratory phase.

Additional information

All patients presenting with asthma, regardless of initial assessment severity are indicated for corticosteroids. Ambulance clinicians may administer hydrocortisone OR dexamethasone. Under no circumstances should both be administered.

A thorough patient history is important when managing acute asthma presentations. Pertinent questioning should determine:

- Previous asthma history – age of onset, frequency and severity of symptoms, number of previous hospital presentations in the last 12 months, previous ICU admissions
- Asthma triggers (if known)
- Cause of current episode (if known)
- Onset of symptoms (prolonged episodes may indicate exhaustion)
- Current prescribed medications (e.g. reliever, preventer, steroids)
- Concurrent medical conditions
- Asthma patients with significant respiratory distress may have little physical reserve and may deteriorate with minimal exertion. Clinicians must exercise extreme caution with their movement and have a low threshold for using aid devices for moving patients.

CPG: Clinician safety
CPG: Standard cares

Note: *Clinicians must only perform procedures for which they have received specific training and authorisation by the QAS.*

Assess severity and consider differential diagnosis

MILD/MODERATE

Consider:

- Oxygen
- Salbutamol
- Ipratropium bromide

SEVERE

Consider:

- Oxygen
- Salbutamol
- Ipratropium bromide
- Adrenaline (epinephrine)
- Magnesium sulphate
- CPAP

LIFE-THREATENING

Consider:

- Oxygen
- Salbutamol
- Ipratropium bromide
- Adrenaline (epinephrine)
- Magnesium sulphate
- If RR < 10 and deemed inadequate, commence IPPV with nebulised medication
- CPAP

Patient able to tolerate oral medication?

N

Consider:

- Hydrocortisone

Y

Consider:

- Dexamethasone

Transport to hospital
Pre-notify as appropriate