British Thoracic Society | Royal College of Emergency Medicine | Royal College of Physicians | NRAP National Respiratory Audit Programme | sam The Society for Acute Medicine

Asthma

Emergency Assessment Pathway

This pathway describes four high-impact actions to deliver the best clinical outcomes for patients presenting to hospital with an acute exacerbation of asthma, based on the severity of their exacerbation. It applies from arrival to hospital (not just ED), through to respiratory review.

Patient cohort: adults (16+)

COMPLETE ACTIONS 1-4 WITHIN 120 MINUTES OF ARRIVAL

ARRIVAL TIME: HH:MM

Patient name: .....
D.O.B: .....
NHS or Hospital Number: .....
Date of arrival: .....
(or patient sticker)
Provider Signature: .....

1 SEVERITY ASSESSMENT (Triage review)

- RR, HR, SpO_2*
- Perform ABG if SpO_2 <92%, or if features of life threatening asthma are present.

*Pulse oximetry may overestimate oxygen saturations in people with darker skin tones.

Near Fatal ☐

Raised $PaCO_2$ and/or requiring mechanical ventilation with raised inflation pressures

Manage in resus or equivalent

Life Threatening ☐

SpO_2 <92% **and** one of the following: Altered consciousness, Exhaustion, Arrhythmia, Hypotension, Cyanosis, Silent Chest, Poor respiratory effort, PEF < 33% best/predicted, PaO_2 < 8 kPA, "Normal" $PaCO_2$ of 4.6-6.0 kPa

Manage in resus or equivalent

Severe Acute ☐

Inability to complete sentences in one breath

RR≥ 25/min, HR ≥ 110/min, PEF 33-50% best/predicted

Manage in resus or equivalent

Moderate ☐

PEF >50-75% best/predicted

2 INITIAL MANAGEMENT

Aim for oxygen saturations of 94-98%.

- ☐ Give prednisolone 40 mg, or IV hydrocortisone 100 mg (if unable to take orally)
- ☐ Give salbutamol 2.5mg and ipratropium 500 microgram / 0.5 mg

- ☐ Give prednisolone 40mg
- ☐ Give salbutamol Nebuliser 2.5mg

- ☐ Give prednisolone 40 mg
- ☐ Up to 10 puffs of salbutamol inhaler via spacer

3 REASSESS (Review severity)

If not fully recovered, consider further treatment/ escalation.

- ☐ Repeat salbutamol and ipratropium
- ☐ Give continuous salbutamol nebuliser 5-10 mg/hr
- ☐ Consider IV magnesium sulphate 1.2-2g over 20 minutes
- ☐ Chest x-ray
- ☐ Repeat ABG
- ☐ Senior Review Discuss/Refer to critical care team

Signs of severe asthma/PEF <50%, patient deteriorating or not improving?

YES → **RECLASSIFY, treat as per Life Threatening and move to resus**

NO → **Clinically stable and PEF > 75%?**

NO

- Repeat salbutamol nebuliser/inhaler and further assessment
- Consider discharge if stable and PEF >75% after observation
- If not fully recovered on reassessment, consider further bronchodilators and observation one hour or more after last bronchodilator

YES

4 DECISION (Discharge or admit)

TIME ACTIONS 1-4 COMPLETED:

HH:MM

Near Fatal: Admit to Critical Care ☐

Hospital medical team will need to ensure respiratory review within 24 hours.

Life Threatening: Admit to Hospital ☐

Hospital medical team will need to ensure respiratory review within 24 hours.

Potential Discharge ☐

If patient is ready for discharge, they will need the following:

- Prednisolone 40mg until recovery (min 5 days)
- ICS/LABA inhaler MART at least, with technique checked
- Send discharge letter to GP
- Local asthma services reviewed/informed per local pathways

Consider also:

- BTS Asthma Attack Care Bundle for more information

Published November 2026 | brit-thoracic.org.uk/asthma