

Acute Asthma Exacerbation vs Poor Control

BTS/SIGN 158 (2019, updated 2025) | NICE NG244 (2024)

■ 999 NOW: Life-Threatening or Acute Severe Asthma

- Silent chest on auscultation (no wheeze audible despite distress): call 999 immediately
- Oxygen saturation (SpO₂) below 92% on air, cyanosis, or exhaustion
- Peak expiratory flow (PEF) below 33% of best or predicted: life-threatening
- Too breathless to complete a full sentence in one breath: acute severe
- Altered consciousness, collapse, or bradycardia: pre-arrest; call 999
- Poor response to salbutamol: no improvement after 5 to 10 puffs via spacer

■ SAME-DAY GP: Acute Deterioration or Persistent Poor Control

- PEF 33 to 50% of best or predicted: acute severe; same-day GP or 999 if worsening
- PEF 50 to 75%: moderate; not responding to usual reliever, needs GP today
- Using reliever inhaler (salbutamol) more than three times per week: poor control
- Waking at night with wheeze or cough more than once per week: poor control
- Increasing reliever use over days: escalating exacerbation; do not advise self-management alone
- Oral corticosteroid course in the last four weeks: recent instability; GP review required

✓ EMERGENCY SUPPLY / PGD: Mild Exacerbation, Good Response

- Salbutamol 2 to 4 puffs via spacer every 20 minutes for the first hour if needed
- Spacer improves lung deposition: always recommend one; available OTC
- Good response: symptoms resolve, PEF above 75% of best, no recurrence in 1 hour
- Continue preventer inhaler (inhaled corticosteroid) as prescribed; do not stop during an exacerbation
- Safety-net: if symptoms return within 3 to 4 hours, worsen, or do not settle, call 999
- Do NOT supply additional salbutamol without confirming GP follow-up is arranged

Feature	Mild / Moderate	Severe / Life-Threatening
PEF	Above 50% of best/predicted	Below 50%; life-threatening below 33%
Speech	Full sentences possible	Cannot complete sentences; gasping
Respiratory rate	Mildly raised	Above 25/min (adult); accessory muscle use
O ₂ sat. (SpO ₂) on air	95% or above	Below 92%: life-threatening
Wheeze	Audible, bilateral	Silent chest: no air entry; call 999 immediately
Salbutamol response	Improvement in 15 to 20 min	Minimal or none: 999

Key reminders: Emergency supply or supply via PGD is appropriate for mild exacerbations with a good response: supply is not a substitute for a written management plan. All patients using a reliever more than three times per week need GP review and a written asthma action plan. Never withhold emergency referral because a patient declines or because symptoms appear to be improving: deterioration can be rapid.