

## MANAGEMENT OF ACUTE ASTHMA IN ADULTS

### CRITERIA FOR ADMISSION

- B** Admit patients with any feature of a life-threatening or near-fatal asthma attack.
- B** Admit patients with any feature of a severe asthma attack persisting after initial treatment.
- C** Patients whose peak flow is greater than 75% best or predicted one hour after initial treatment may be discharged from ED, unless there are other reasons why admission may be appropriate.

### TREATMENT OF ACUTE ASTHMA

OXYGEN		$\beta_2$ AGONIST BRONCHODILATORS	
<b>C</b>	<ul style="list-style-type: none"> <li>• Give controlled supplementary oxygen to all hypoxaemic patients with acute severe asthma to maintain an SpO<sub>2</sub> level of 94–98%. Do not delay oxygen administration in the absence of pulse oximetry but commence monitoring of SaO<sub>2</sub> as soon as it becomes available.</li> </ul>	<b>A</b>	Use high-dose inhaled $\beta_2$ agonists as first-line agents in patients with acute asthma and administer as early as possible. Reserve intravenous $\beta_2$ agonists for those patients in whom inhaled therapy cannot be used reliably.
<b>A</b>	<ul style="list-style-type: none"> <li>• In hospital, ambulance and primary care, nebulisers for giving nebulised <math>\beta_2</math> agonist bronchodilators should preferably be driven by oxygen.</li> </ul>	<input type="checkbox"/>	In patients with acute asthma with life-threatening features the nebulised route (oxygen-driven) is recommended.
STEROID THERAPY		$\beta_2$ AGONIST BRONCHODILATORS	
<b>A</b>	Give steroids in adequate doses to all patients with an acute asthma attack.	<b>A</b>	In patients with severe asthma that is poorly responsive to an initial bolus dose of $\beta_2$ agonist, consider continuous nebulisation with an appropriate nebuliser.
OTHER THERAPIES		IPRATROPIUM BROMIDE	
<b>A</b>	Nebulised magnesium sulphate is not recommended for treatment of adults with acute asthma.	<b>B</b>	Add nebulised ipratropium bromide (0.5 mg 4–6 hourly) to $\beta_2$ agonist treatment for patients with acute severe or life-threatening asthma or those with a poor initial response to $\beta_2$ agonist therapy.
OTHER THERAPIES		REFERRAL TO INTENSIVE CARE	
<b>B</b>	Consider giving a single dose of IV magnesium sulphate to patients with acute severe asthma (PEF <50% best or predicted) who have not had a good initial response to inhaled bronchodilator therapy.	Refer any patient:	
<input type="checkbox"/>	Magnesium sulphate (1.2–2 g IV infusion over 20 minutes) should only be used following consultation with senior medical staff.	<ul style="list-style-type: none"> <li>• requiring ventilatory support</li> <li>• with acute severe or life-threatening asthma, who is failing to respond to therapy, as evidenced by: <ul style="list-style-type: none"> <li>- deteriorating PEF</li> <li>- persisting or worsening hypoxia</li> <li>- hypercapnia</li> <li>- ABG analysis showing <math>\downarrow</math> pH or <math>\uparrow</math> H<sup>+</sup></li> <li>- exhaustion, feeble respiration</li> <li>- drowsiness, confusion, altered conscious state</li> <li>- respiratory arrest.</li> </ul> </li> </ul>	
<b>B</b>	Routine prescription of antibiotics is not indicated for patients with acute asthma.		

## FOLLOW UP

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|  | <ul style="list-style-type: none"><li>• It is essential that the patient's primary care practice is informed within 24 hours of discharge from the emergency department or hospital following an asthma attack.</li><li>• Keep patients who have had a near-fatal asthma attack under specialist supervision indefinitely.</li><li>• A respiratory specialist should follow up patients admitted with a severe asthma attack for at least one year after the admission.</li></ul> |
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