

APPENDIX 3. MANAGEMENT OF CHILDHOOD ASTHMA IN THE EMERGENCY DEPARTMENT

Classification	Medication	Delivery System †
Mild	<ul style="list-style-type: none"> • \pm O₂ • Short-acting inhaled β_2-agonist: Titrate to response q15–20 minutes until improved • Consider oral systemic corticosteroids 	<ul style="list-style-type: none"> • MDI + spacer <p>OR</p>
Moderate	<ul style="list-style-type: none"> • O₂ 100% • Short-acting inhaled β_2-agonist; titrate to response q15 minutes until improved • Oral systemic corticosteroids • Consider inhaled anticholinergic 	<ul style="list-style-type: none"> • wet nebulizer administered with O₂
Severe	<ul style="list-style-type: none"> • O₂ 100% • Continuous or frequent short-acting inhaled β_2-agonist • Systemic (IV or oral) corticosteroids • Inhaled anticholinergic • Consider methylxanthines (may be used as a <i>last</i> resort—the risk-to-benefit ratio is high) <p>If deteriorating or near death:</p> <ul style="list-style-type: none"> • rapid sequence intubation <p>If unresponsive:</p> <ul style="list-style-type: none"> • Rule out pneumothorax or upper airway obstruction • consider short-acting IV β_2-agonists, ketamine, magnesium infusion, inhalational anaesthetic agents 	<ul style="list-style-type: none"> • MDI + ventilator adaptor <p>OR</p> <ul style="list-style-type: none"> • wet nebulizer administered with O₂

† Use mask if child < age 5

Notes:

Please refer to Appendices 1 and 2 for specific dosages.

For patients classified as moderate and severe, if there is asymmetrical air entry on examination or poor response to therapy, order PA and lateral chest x-rays to rule out significant atelectasis or pneumothorax.

For severe patients, obtain arterial blood gases.

Adapted from: The Canadian Association of Emergency Physicians. Guidelines for the emergency management of Paediatric Asthma. EP96-01. 2002. Canadian Paediatric Society.
www.cps.ca/english/statements/EP/ep96-01/mildp.htm

