



Clinical Practice Guideline for the Management of Asthma in Children and Adults

Classification of Acute Exacerbation: Severity and Treatment

Severity of Asthma Exacerbation				
SIGNS / SYMPTOMS	Mild	Moderate	Severe	Respiratory Arrest Imminent
<i>Activity Level:</i>	Walks briskly	Walks slowly	Walks with assistance	Unable to walk
<i>Feeding (infant):</i>	Normal	Difficulty feeding	Unable to feed	Unable to suck
<i>Talks in:</i>	Sentences	Phrases	Words	Too dyspneic to speak; perspiring
<i>Sounds (infant):</i>	Normal cry, cooing	Short, clipped cry	Faint cry, grunting	
<i>Alertness:</i>	May be agitated	Usually agitated	Usually agitated	Drowsy or confused
<i>Respiratory rate:</i>	Increased	Increased	Often > 30/min	
	Normal rates of breathing in awake children by age: < 2 months < 60/min ; 2-12 months < 50/min ; 1-5 years < 40/min ; 6-8 years < 30/min			
<i>Retractions & accessory muscle use:</i>	Usually not	Usually	Usually	Paradoxical thoraco-abdominal movement (see-saw breathing)
<i>Wheeze:</i>	Moderate, often only end expiratory	Loud expiratory	Usually loud, may be biphasic (inspiratory and expiratory)	Absence of wheeze
<i>Pulse/min. > 8 yrs:</i>	< 100	100-120	>120	Bradycardia
<i>Pulse/min. < 8 yrs:</i>	Guideline limits of normal pulse rate in children: Infants (2-12 months): < 160/min ; Preschool (1-2 years): < 120/min School age (2-8 years): < 110/min			
<i>Pulsus paradoxus:</i>	Absent < 10 mm Hg	May be present. 10-25 mm Hg	Often present > 25 mm Hg (adult) 20-40 mm Hg (child)	Absence suggests respiratory muscle fatigue
TESTS				
<i>SaO2% (on room air)</i>	> 95%	91-95%	< 90%	
<i>PEF after initial bronchodilator treatment</i>	Over 80%	Approx. 60-80%	< 60% predicted	
<i>PaO2 (on room air)</i>	Normal Test not usually necessary	> 60 mm Hg	< 60 mm Hg Possible cyanosis	Cyanosis
<i>PaCO2</i>	< 45 mm Hg	< 45 mm Hg	> 45 mm Hg	>50 mm Hg
	<i>Note: Hypercapnea (hypoventilation) develops more readily in young children than in adolescents and adults.</i>			
INTERVENTION				
<i>Response to inhaled Short-Acting Bronchodilator (SABA)</i>	Prompt relief	Complete relief after multiple treatments	Partial relief after multiple treatments. Requires continuous inhaled SABA	Minimal or no relief from inhaled SABA. Requires systemic bronchodilator (subcutaneous epinephrine, terbutaline)
<i>Location of care</i>	Home Management	Office or emergency department	Emergency department; possible hospitalization	Hospitalization following stabilization in emergency department
<i>*Note: The presence of several parameters, but not necessarily all, indicates the general classification of the exacerbation.</i>				