

Algorithm: Initial Management of Pediatric Asthma Exacerbations (Page 1 of 3)

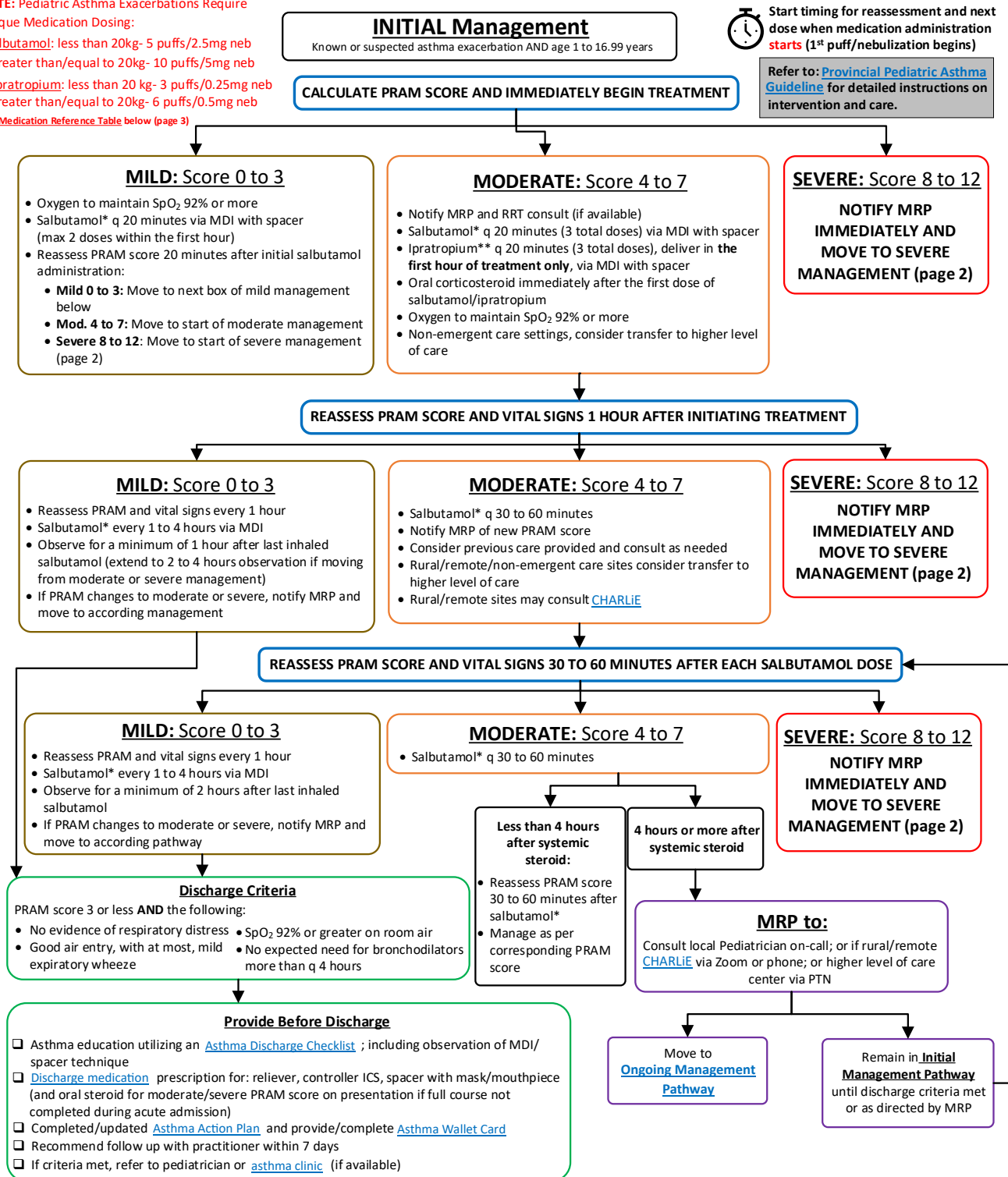
NOTE: Pediatric Asthma Exacerbations Require

Unique Medication Dosing:

***Salbutamol:** less than 20kg- 5 puffs/2.5mg neb
greater than/equal to 20kg- 10 puffs/5mg neb

****Ipratropium:** less than 20 kg- 3 puffs/0.25mg neb
greater than/equal to 20kg- 6 puffs/0.5mg neb

See Medication Reference Table below (page 3)



This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. A printed copy of this document may not reflect the current electronic version.

Algorithm: Initial Management of Pediatric Asthma Exacerbations (Page 2 of 3)

NOTE: Pediatric Asthma Exacerbations Require Unique Medication Dosing:

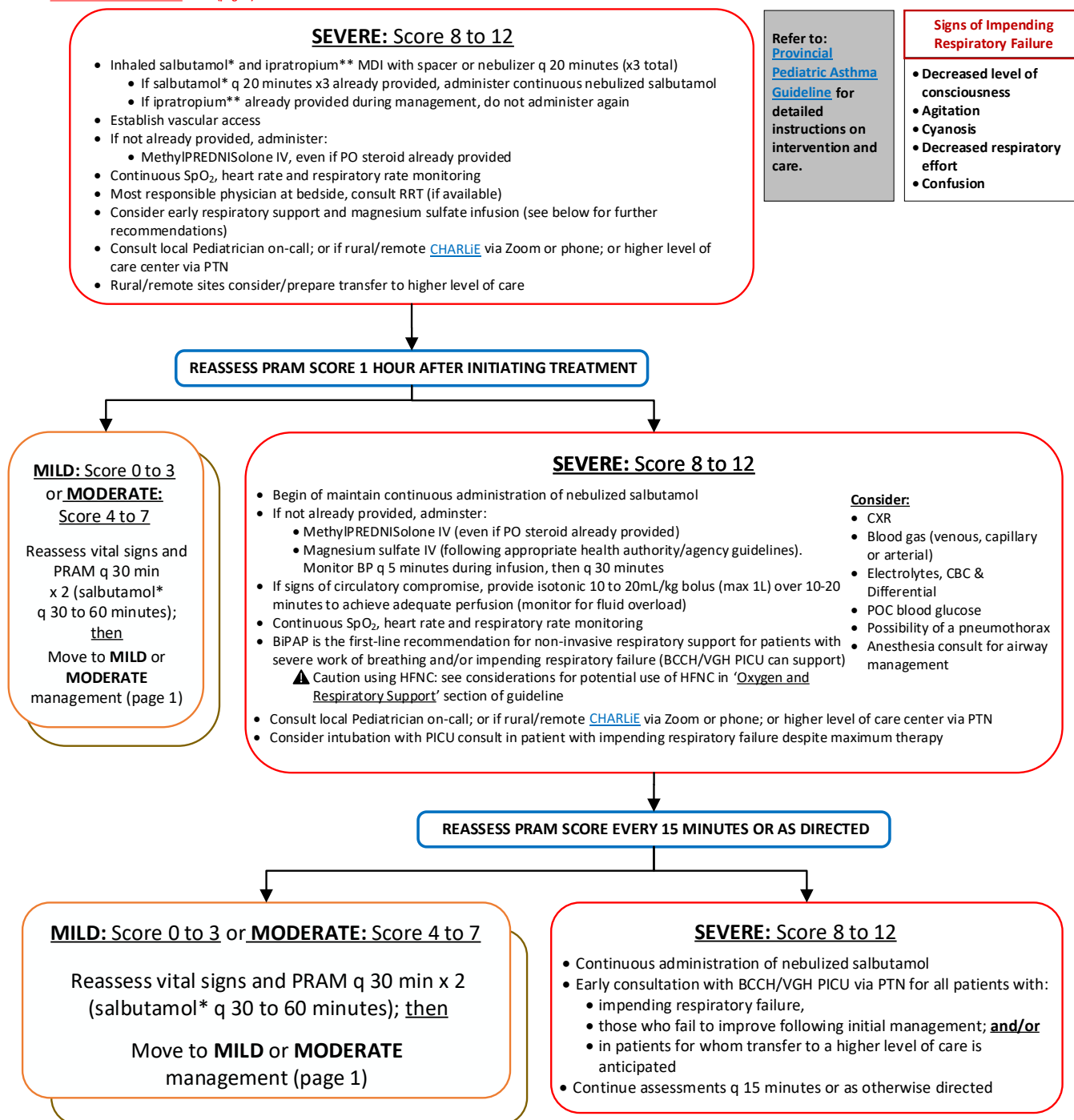
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Start timing for reassessment and next dose when medication administration **starts** (1st puff/nebulization begins)



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Initial Management of Pediatric Asthma Exacerbations Medication Reference (Page 3 of 3)

Bronchodilators

salbutamol (intermittent)	<p>Child weight less than 20 kg: 5 puffs via MDI with spacer (100 mcg/puff); <u>or</u> 2.5 mg via nebulizer</p> <p>Child weight greater than or equal to 20 kg: 10 puffs via MDI with spacer (100 mcg/puff); <u>or</u> 5 mg via nebulizer</p> <p><i>Note: salbutamol doses are the same throughout the management algorithm.</i></p>
salbutamol (continuous)	<p>20 mg/hr via nebulizer</p> <p><i>Note: salbutamol doses are the same throughout the management algorithm.</i></p>
ipratropium (intermittent)	<p>Child weight less than 20 kg: 3 puffs via MDI with spacer (20 mcg/puff); <u>or</u> 0.25 mg via nebulizer</p> <p>Child weight greater than or equal to 20 kg: 6 puffs via MDI with spacer (20 mcg/puff); <u>or</u> 0.5 mg via nebulizer</p>

Note: administering nebulized medication through a HFNC circuit will dramatically reduce delivered dose. See guideline for detailed instructions.

Systemic Steroids

dexamethasone	<p>0.6 mg/kg/dose (max 16 mg/dose) PO x 1 dose</p> <p><i>Second dose to be given after 24 hours in hospital if scoring moderate or severe PRAM</i></p>
prednisone/prednisolone	1 mg/kg/dose (max 60 mg/dose) PO daily (x 5 days)
methylPREDNISolone	1 mg/kg/dose (max 60 mg/dose) IV q6h

Other

magnesium sulfate	<p>50 mg/kg/dose (max 2000mg/dose) IV x 1 dose</p> <p>over 20 minutes</p>
0.9% NaCl/Ringer's Lactate bolus	10-20 mL/kg bolus (max 1L) over 10 to 20 minutes

List of Abbreviations

BCCH/VGH PICU = BC Children's Hospital/Victoria General Hospital Pediatric Intensive Care Unit
 BiPAP = Bilevel positive airway pressure
 BP = Blood pressure
 CBC = Complete blood count
 CHARLIE = Child health advice in real-time electronically
 CXR = Chest x-ray
 HFNC = High flow nasal cannula
 ICS = Inhaled corticosteroid
 IV = Intravenous
 MDI = Metered dose inhaler
 MRP = Most responsible physician
 NaCl/LR = Sodium chloride/Lactated Ringer's

O₂ = Oxygen
 PO = By mouth
 POC = Point of care
 PRAM = Pediatric Respiratory Assessment Measure
 PRN = As needed
 PTN = Patient transfer network
 q = Every
 RR = Respiratory rate
 RRT = Registered Respiratory therapist
 SpO₂ = Oxygen saturation

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