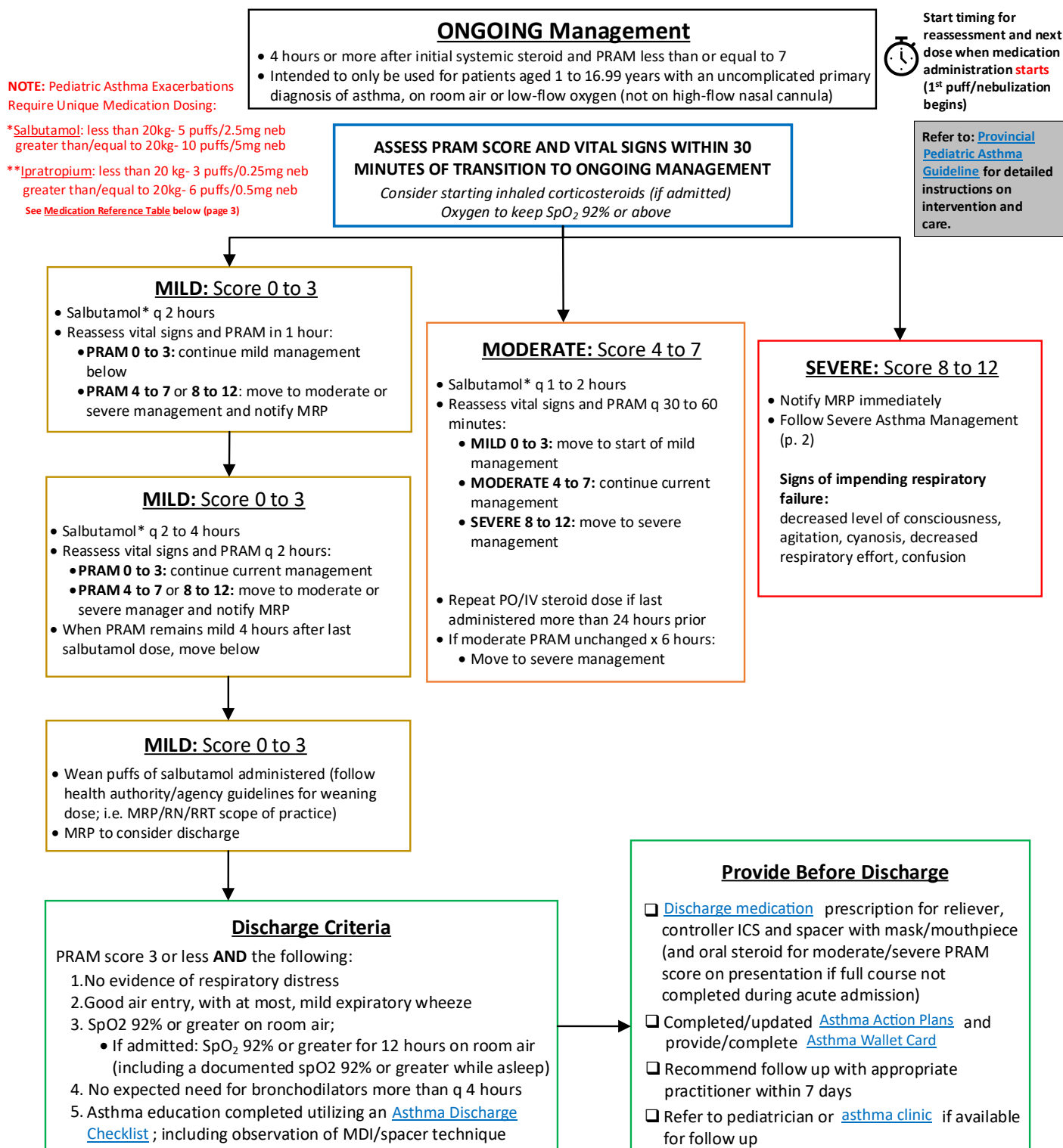


## Algorithm: Ongoing Management of Pediatric Asthma Exacerbations (Page 1 of 3)



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

**NOTE:** Pediatric Asthma Exacerbations Require Unique Medication Dosing:

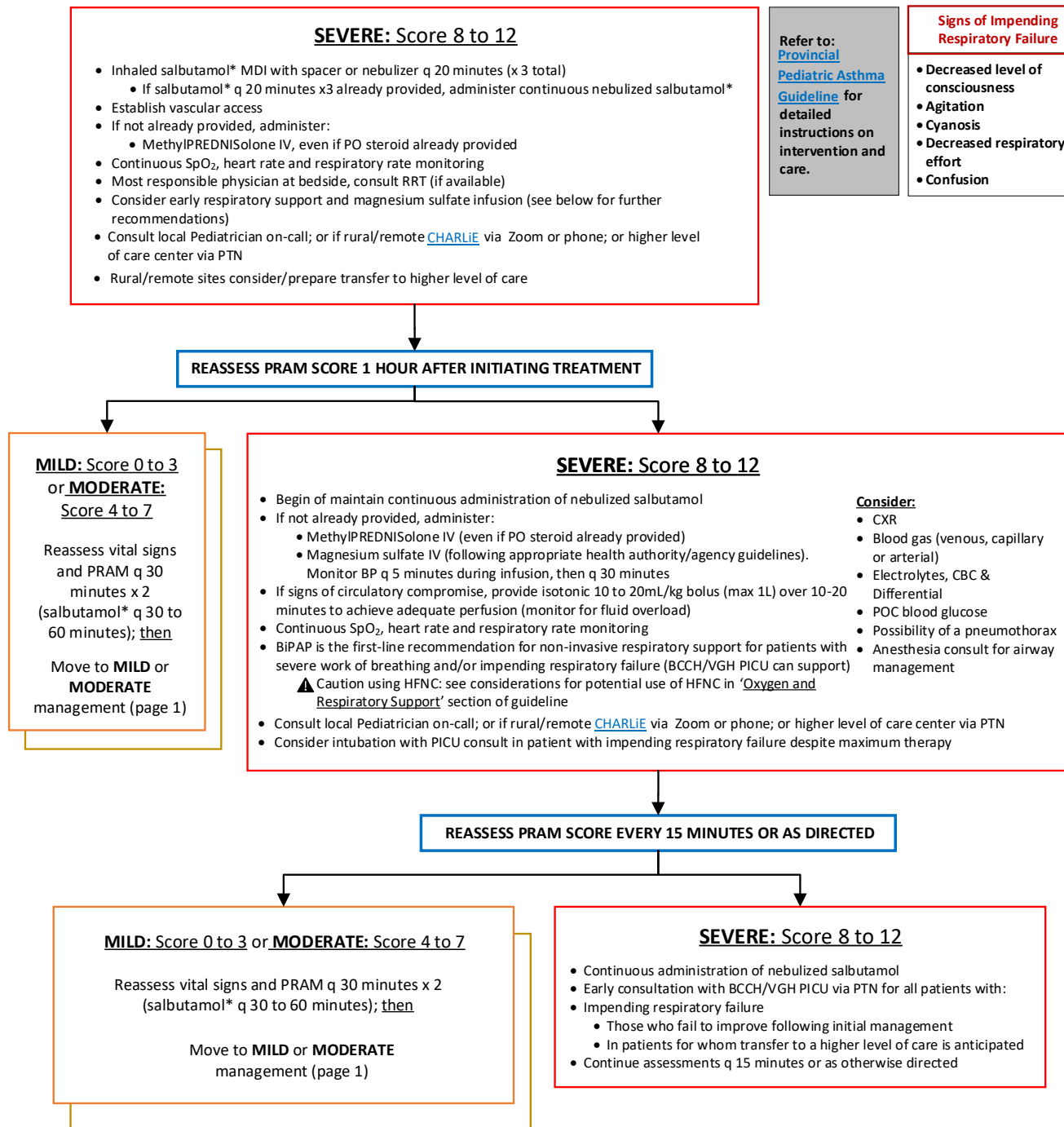
\***Salbutamol:** less than 20kg- 5 puffs/2.5mg neb; greater than/equal to 20kg- 10 puffs/5mg neb

\*\***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)



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



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

### Bronchodilators

<b>salbutamol (intermittent)</b>	<p><b>Child weight less than 20 kg (1 dose):</b> 5 puffs via MDI with spacer (100 mcg/puff); <u>or</u> 2.5 mg via nebulizer</p> <p><b>Child weight greater than or equal to 20 kg (1 dose):</b> 10 puffs via MDI with spacer (100 mcg/puff); <u>or</u> 5 mg via nebulizer</p>
<p><b>salbutamol (weaned dose)*</b> ONLY when sustained PRAM score 3 or less with salbutamol q4h</p>	<p>2-4 puffs via MDI with spacer (100mcg/puff) q4h</p> <p><i>*Follow site specific policies/procedures for weaning dose (i.e. MRP/RN/RRT scope of practice).</i></p>
<b>salbutamol (continuous)</b>	20 mg/hr via nebulizer

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

### Systemic Steroids

<b>dexamethasone</b>	<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>
<b>prednisone/prednisolone</b>	1 mg/kg/dose (max 60 mg/dose) PO daily (x 5 days)
<b>methylPREDNISolone</b>	1 mg/kg/dose (max 60 mg/dose) IV q6h

### Inhaled Corticosteroids (continue home maintenance therapy if applicable)

<b>beclomethasone dipropionate HFA</b>	100 mcg/dose inhaled BID
<b>fluticasone propionate MDI</b>	125 mcg/dose inhaled BID
<b>ciclesonide MDI</b>	200 mcg/dose inhaled once daily
<b>budesonide DPI</b>	200 mcg/dose inhaled BID
<b>fluticasone propionate DPI</b>	100 mcg/dose inhaled BID

### Other

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

#### 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

DPI = Dry Powder Inhaler  
HFNC = High Flow Nasal Cannula  
ICS = Inhaled Corticosteroid  
IV = Intravenous  
MDI = Metered Dose Inhaler  
MRP = Most Responsible Practitioner  
O<sub>2</sub> = Oxygen  
PRAM = Pediatric Respiratory Assessment Measure

PO = Per mouth  
POC = Point of Care  
PRN = as needed (Pro Re Nata)  
PTN = Patient Transfer Network  
q = Every  
RR = Respiratory Rate  
RRT = Registered Respiratory Therapist  
SpO<sub>2</sub> = Oxygen Saturation

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