

ASTHMA PATHWAY

INPATIENT WITH RT WEANING PROTOCOL

Exclusion Criteria from pathway

- OSA/trach
- CLD
- CHD or prior ECMO
- HHF pathway

Identify Asthma Exacerbation

Child with asthma presenting with cough, wheeze or respiratory distress

- Assign RS
- Order Asthma Inpatient
- Initiate Asthma Teaching
- Complete Asthma History Tool

Severe RS 9 or higher

- Continuous albuterol (max 20mg/hr)
- Start/continue oral steroids
- RT assessment with RS Q1H
- NPO, start/continue IVF
- Advance to Moderate pathway when assessed as "Moderate" x2

Escalation

If no/poor response to continuous albuterol or increasing O₂ requirement

- Consider IV magnesium sulfate after NS bolus (may repeat Q6-Q12H)
- Consider IV methylprednisolone
- Consider scheduled ipratropium bromide
- Consider diagnostic testing

Indications of PICU

- Worsening WOB on continuous albuterol with potential need for PPV or terbutaline
- FiO₂ > 60%
- No response to magnesium sulfate (up to two doses)
- History of intubation/PICU
- Declining mental status
- Being managed with continuous Albuterol >1mg/kg/hr or >20mg/hr

Possible Diagnostic Testing

Routine chest imaging and viral testing are **NOT** recommended

- Consider CXR if failure to improve despite aggressive therapy, increasing oxygen requirement, or concern for foreign body
- Consider RVP if suspect influenza infection

Moderate RS 5-8

- Albuterol MDI 8 puffs Q2H with Q1H PRN
- Start/continue oral steroids
- Reassess PO/IVF status
- RT assessment RS Q1H x4 Q2H and PRN
- Advance to mild pathway when assess as "Mild" x2 prior to scheduled treatments – patient to be in moderate category a minimum of 4 hours
- Prep for discharge to create Asthma Action Plan

RT Protocol

- If PRN required in any category, assess Q1H x2, continue in current category
- Escalate if RS above current category and/or clinical assessment. RT to notify Provider if escalation needed or if failure to advance on protocol after 6 hours of continuous Albuterol
- RT to discontinue RT weaning protocol in EPIC if re-escalation and/or patient transfers to higher level of care

Use with Caution:

- Concurrent bronchiolitis
- Consolidative pneumonia
- <2 years of age

Mild RS equal or less than 4

- Albuterol MDI 4-8 puffs Q4H with Q2H PRN
- Start/continue oral steroids
- RT assessment with RS Q2H x1 then RS Q4H
- Wean albuterol MDI to 2-4 puffs Q4H

Discharge

- RT to notify provider and RN once patient is "Mild" (RS 1-4) tolerating 2-4 puffs Q4H and no PRNs given
- Discharge med rec complete with asthma discharge instructions
- Complete Asthma Action Plan and asthma education
- Schedule PCP follow-up in 2-3 days
- Consider continuing albuterol MDI at home dose for 24H
- Provide **smoking cessation resources** if applicable

- Consider Pulmonary or Allergy & Immunology referral with follow-up in 4-6 weeks
- See "**Abbreviated EPR-4 and Pulmonology Referral Guidelines**" for controller guidance

Disclaimer: Pathways are intended as a guide for practitioners and do not indicate an exclusive course of treatment nor serve as a standard of medical care. These pathways should be adapted by medical providers, when indicated, based on their professional judgement and taking into account individual patient and family circumstances.

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Dosing Guidelines for Medications



Severity Level and Medication	<10kg	>10kg												
Mild Albuterol Dexamethasone OR convert to Prednisone/Prednisolone	4 puffs q4h + 2 puffs q4h PRN *Reduce patient to 2-4 puffs prior to discharge 0.6mg/kg PO daily x1 (max 16mg/dose), optional 2nd dose in 24-48 hours 2mg/kg once (max 60mg) follow ed by 1mg/kg BID (max 60mg/day) for 3-5 days	8 puffs q4h + 4 puffs q4h PRN 0.6mg/kg PO daily x1 (max 16mg/dose), optional 2nd dose in 24-48 hours 2mg/kg once (max 60mg) follow ed by 1mg/kg BID (max 60mg/day) for 3-5 days												
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Severe Continuous Albuterol Dexamethasone OR convert to Prednisone/Prednisolone	0.5 - 1mg/kg/hr (Med-Surg max 20mg/hr) *Round to nearest 5mg/hr 0.6mg/kg PO daily x1 (max 16mg/dose), optional 2nd dose in 24-48 hours 2mg/kg once (max 60mg) follow ed by 1mg/kg BID (max 60mg/day) for 3-5 days													
Initial Treatment ED only Combination Nebulizer: Albuterol + Ipratropium Bromide	2.5mg x 3 = 7.5mg + 500mcg	5mg x 3 = 15mg + 1000mcg												
Escalation Therapies Normal Saline Bolus + Magnesium Sulfate Terbutaline (ED only) Epinephrine (ED only) Methylprednisolone Ipratropium Bromide (IP only)	20mL/kg IV (max 1L) 50mg/kg IV (max 2g/dose) 10mcg/kg subcutaneous (max 250mcg) 0.01mg/kg IM (max 0.5mg/dose) 1mg/kg q6h IV (max 60mg/dose) 250mcg (2.5mL) neb q6h (for 24 hours) 500mcg (5mL) neb q6h (for 24 hours)													
Asthma Action Plan Albuterol	<table border="0" style="width: 100%; text-align: center;"> <tr> <td></td> <td><u>Yellow Zone</u></td> <td></td> </tr> <tr> <td>2 puffs q4h PRN</td> <td> </td> <td>4 puffs q4h PRN</td> </tr> <tr> <td></td> <td><u>Red Zone</u></td> <td></td> </tr> <tr> <td>4 puffs q20min PRN up to 3</td> <td> </td> <td>8 puffs q20min PRN up to 3</td> </tr> </table>			<u>Yellow Zone</u>		2 puffs q4h PRN		4 puffs q4h PRN		<u>Red Zone</u>		4 puffs q20min PRN up to 3		8 puffs q20min PRN up to 3
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