

MANAGEMENT OF ACUTE ASTHMA
EXACERBATIONS

© BCH Emergency Department

Inclusion Criteria
Age: ≥ 24 months of age

H/o asthma, reactive airway disease or wheezing +/- family history of asthma

Exclusion Criteria
Contraindication/allergy to medications used within guideline.

Disease of other origin: pneumonia, bronchiolitis, croup

Complicated medical history including congenital/acquired heart disease, other chronic lung disease, bronchopulmonary dysplasia/cystic fibrosis, immune-mediated disorders, tracheostomy

Criteria for radiographic imaging or labs:
No absolute indication.

Consider radiographic imaging in children with:

- Fever ≥ 39°C, hypoxia, focal abnormality on pulmonary examination,
- Absence of family history of asthma, or those who respond less favorably than expected to bronchodilator therapy.
- May also consider in patients with concern for presence of foreign body, pneumomediastinum or pneumothorax.

Consider blood gas testing if there is a clinical worsening of mental status, neurologic and/or respiratory exam.

Medication	Dosing (per ED Asthma/Albuterol orderset)
Albuterol (nebulized)	<ul style="list-style-type: none">• <20 kg: 2.5 mg• ≥20 kg: 5 mg
Albuterol (metered-dose inhaler)	<ul style="list-style-type: none">• <20 kg: 4 puffs with aerochamber• ≥20 kg: 8 puffs with aerochamber
Ipratropium	<ul style="list-style-type: none">• Note: During first hour of therapy, all ipratropium is given as a Duonebs. Dosing for both weights is 500mcg per treatment
Continuous albuterol	<ul style="list-style-type: none">• Infrequently utilized. If indicated, 20mg/hr regardless of weight
Magnesium Sulfate	50 mg/kg IV x 1 (max 2g). Administer with 20ml/kg normal saline bolus unless contraindicated
Epinephrine (IM)	Epinephrine 1:1000 (1 mg/mL): 0.01 mg/kg IM (max 0.3-0.5 mg)
Terbutaline	Loading dose: 10 mcg/kg IV/IM x 1, then infusion of 0.08 mcg/kg/min IV; titrate to effect

