

MANAGEMENT OF ACUTE ASTHMA EXACERBATIONS

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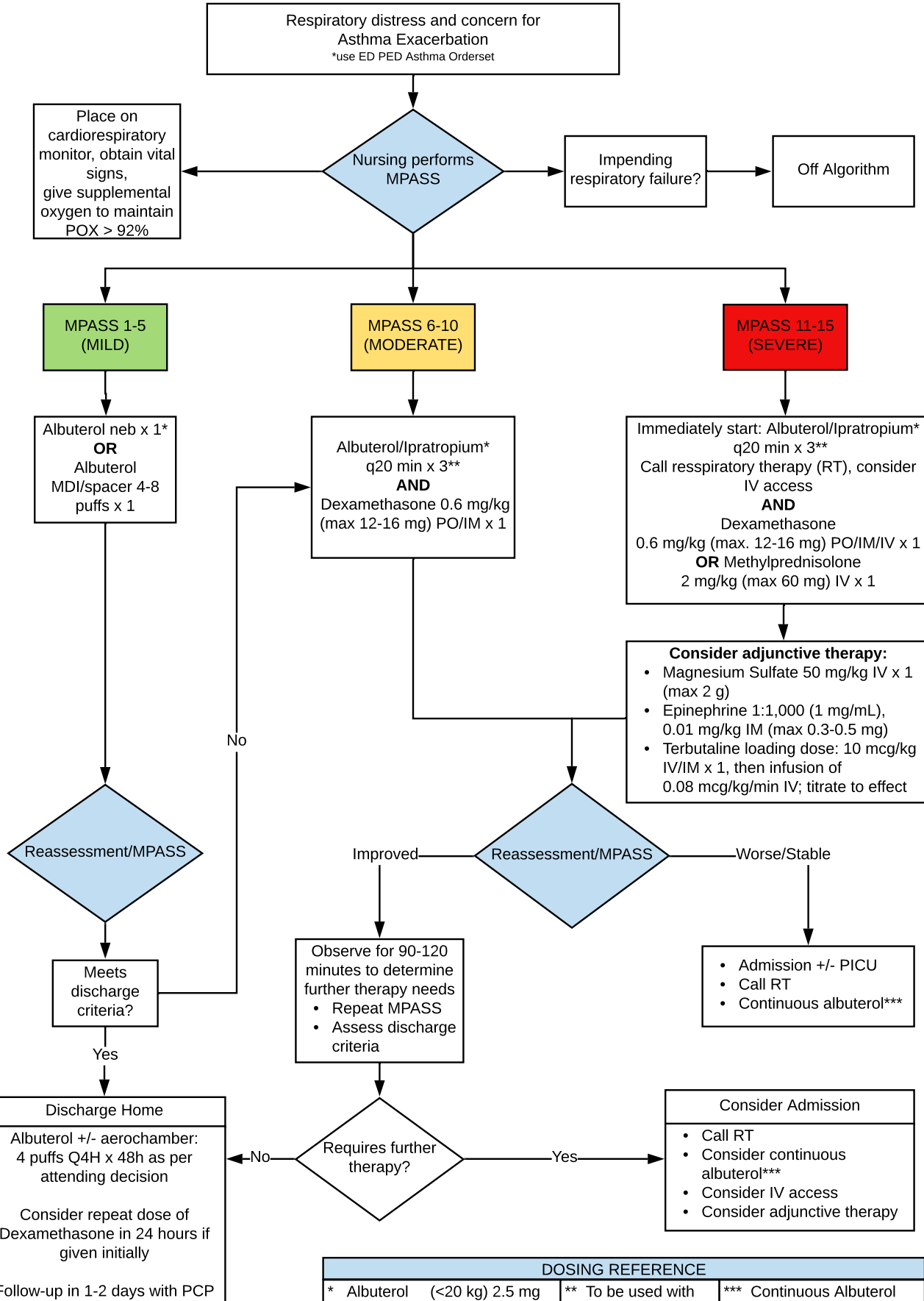
Inclusion Criteria
 Age: > 24 months of age
 H/o asthma, reactive airway disease or wheezing +/- family history of asthma

Exclusion Criteria
 Contraindication/allergy to medications used within guideline.
 Disease of other origin: pneumonia, bronchiolitis, croup
 Complicated medical history including congenital/acquired heart disease, 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 be considered 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.

Discharge Criteria:

- MPASS ≤ 7
- Able to obtain/tolerate medicine and manage outpatient asthma



DOSING REFERENCE		
* Albuterol (<20 kg) 2.5 mg (>20 kg) 5 mg	** To be used with EZ Flow device if available	*** Continuous Albuterol (<20 kg) 7.5 mg/hr (>20 kg) 10-20 mg/hr
Ipratropium (<20 kg) 250 mcg (>20 kg) 500 mcg		
(above dosing reference pertains to one-time nebulized treatments)		

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Disclaimer: This algorithm functions as a guideline for clinical care under the direction of attending physicians.
Committee Approval Record: BCH Medication Committee 09/2017 ; UCSF P&T Committee 10/2017

Modified Pediatric Asthma Severity Score (MPASS)

	0	1	2	3
Oxygenation	> 98% on RA	95% - 97% in RA	90% - 94% on RA	< 90% on RA
Auscultation	No wheezing Normal breath sounds	End expiratory wheezes	Inspiratory and expiratory wheezes	Wheezing audible w/o stethoscope or silent chest
Retractions	No retractions	Intercostal retractions and/or diaphragmatic (belly) breathing	2 of the following: <ul style="list-style-type: none"> • Intercostal • Suprasternal • Diaphragmatic (belly) breathing • Nasal flaring (infant) 	3 of the following: <ul style="list-style-type: none"> • Subcostal • Intercostal • Substernal • Supraclavicular • Nasal flaring or Head bobbing (infant)
Dyspnea	Absent dyspnea; speaks in complete sentences; alert; playful	Normal activity and speech. Some dyspnea, irritable, coughing after play	Decreased activity 5-8 word sentences. Moderate dyspnea; not sleeping or eating; coughing after play	Not speaking. Severe dyspnea; grunting; lethargic, stops playing
Resp Rate				
Infant (birth – yr)	< 60	60-80	81-99	≥ 100
Toddler (>1-3 yrs)	< 40	40-60	61-79	≥ 80
Preschool (>3-6 yrs)	< 30	30-40	41-59	≥ 60
School Age (>6 -12 yrs)	< 20	20-26	27- 30	≥ 31
Adolescent (>12-18 yrs)	< 18	18-23	24 - 27	≥ 28
Severity Scores	0	1-5 MILD	6-10 MODERATE	11-15 SEVERE