

Appendix 3: Asthma Medications

	MEDICATION	TYPICAL DOSING / RANGE	MAX DOSE	NOTES
Bronchodilators				
	Albuterol	<i>Continuous Nebulization</i> 5 – 20 mg/hr	<i>Continuous</i> 20 mg/hr	<ul style="list-style-type: none"> - Not age-based - dosing not weight-based, based on severity of presentation - use 20 mg/hr for severe exacerbations
		<i>Nebulization</i> 2.5 mg	<i>Nebulization</i> 5 mg	
		<i>MDI</i> 2 – 8 puffs (4-6 puffs = 2.5mg neb)	<i>MDI</i> 8 puffs	
	Levalbuterol	<i>Nebulization</i> 1.25 mg (1.25 mg Levalbuterol = 2.5 mg Albuterol)	<i>Nebulization</i> 2.5 mg	<ul style="list-style-type: none"> - Not age-based - Not weight-based - Cannot be given as continuous neb - Levalbuterol administered in ½ the mg dose of albuterol provides comparable efficacy and safety
	Albuterol + Ipratropium Duoneb = 2.5 mg albuterol + 0.5 mg ipratropium	2.5 mg Albuterol + 0.25-0.5 mg Ipratropium	5 mg Albuterol + 0.5 mg Ipratropium	<ul style="list-style-type: none"> - Not age-based - dosing not weight-based, based on severity of presentation
Systemic Corticosteroids				
	Dexamethasone	0.6 mg/kg PO/IM Q24hr x 2 doses (PO preferred)	16 mg/dose (based on ©Δ)	<ul style="list-style-type: none"> - Use IV formulation (4mg/mL concentration) preferentially for oral administration - Duration of effect: up to 72hr
	Prednisone/Prednisolone	1-2 mg/kg/day PO daily or divided BID	60 mg/day	<ul style="list-style-type: none"> - 5 day steroid course for moderate exacerbation - If >10 days of steroids, taper may be considered
	Methylprednisolone	0.5-1 mg/kg IV Q6 – 12hr	60 mg/dose Q6hr	<ul style="list-style-type: none"> - Consider loading dose 2

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				mg/kg IV x1 (max 60 mg/dose) for severe exacerbation - If >10 days of steroid taper may be considered
	MEDICATION	TYPICAL DOSING / RANGE	MAX DOSE	NOTES
Adjunctive Medications				
	Magnesium Sulfate	40-50 mg/kg IV infused over 20-30 min	2 gm	- Repeat doses not supported by literature, but may be considered for critically ill patients Q12-24hr (recommend PICU consultation)
	Terbutaline	<i>Continuous infusion</i> IV Load: 10 MCG /kg over 10 minutes, then 0.08 MCG /kg/min IV continuous infusion, may increase Q30min to max of 3 MCG /kg/min	<i>Continuous infusion</i> 3 MCG /kg/min	- Minimal literature available regarding use and dosing (recommend PICU consultation)
		<i>Subcutaneous</i> 0.02 MG /kg Q20min x 3	<i>Subcutaneous</i> 0.25 MG /dose	
	Epinephrine 1 mg/ml	0.01 mg/kg IM Q20min x 3	0.3 mg/dose IM < 50kg 0.5 mg/dose> IM 50 kg	-weight based dosing 0.3 mg for < 50 kg and 0.5 mg for >= 50 kg
Inhaled Corticosteroids				
	Refer to separate chart for ICS dosing			

♥ Keeney GE, Gray MP, Morrison AK, Levas MN, Kessler EA, Hill GD, Gorelick MH, Jackson JL. Dexamethasone for acute asthma exacerbations in children: a meta-analysis. *Pediatrics*. 2014 Mar;133(3):493-9.

Δ Taketomo CK, Hodding JH, Kraus DM. *Pediatric & Neonatal Dosage Handbook: A Universal Resource for Clinicians Treating Pediatric and Neonatal Patients*. Hudson, OH: Lexi-Comp, 2014.

Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma, Clinical Practice Guidelines. National Asthma Education and Prevention Program, Third Expert Panel on the Diagnosis and Management of Asthma, National Heart, Lung, and Blood Institute; 20

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