

# Prescribing Tip Sheet for NHLBI's "2020 Focused Updates to the Asthma Management Guidelines"

including Single Maintenance and Reliever Therapy ("SMART," or "MART")

Age range	Indications	Medications	Dose	Frequency	Maximum total doses and/or duration	"Yellow Zone" Asthma Action Plan"	As-needed SABA use?	Considerations
0-4 y.o.	"Mild Asthma (Step 1-2): With URI onset, or requiring repeated OCS courses: As-needed ICS course + PRN SABA"	Pulmicort (budesonide) respule	1 mg solution nebulized	2 times daily	7 days	if URI, 1 mg nebulized Budesonide 2 times daily for 7 days and PRN SABA	Yes	Conditional recommendation. NOT indicated if already taking daily maintenance ICS. Consider if caregivers prefer intermittent asthma therapy, and/or history of adherence issues.
5-11 y.o.	"Moderate to Severe Persistent Asthma (Step 3-4): Single Maintenance and Reliever Therapy ("SMART," or "MART")"	"Symbicort 80 mcg/4.5 mcg, or Dulera 50 mcg/5 mcg HFA"	1-2 puffs via spacer	1-2 times daily, AND as needed	up to 8 puffs/day, for up to 5 days	1 puff as needed for symptoms; OR 2 puffs 4 times daily for symptoms	No	Preferred treatment for Moderate to Severe Persistent Asthma, compared to high-dose ICS (or ICS/LABA) + PRN SABA. Consider asthma specialist consult if needing higher doses (Step 4+).
12+ y.o.	"Moderate to Severe Persistent Asthma (Step 3-4): Single Maintenance and Reliever Therapy ("SMART," or "MART")"	"Symbicort 80 mcg/4.5 mcg, or Dulera 50 mcg/5 mcg HFA"	1-2 puffs via spacer	1-2 times daily, AND as needed	up to 12 puffs/day, for up to 5 days	1 puff as needed for symptoms; OR 2 puffs every 4 hours (6 times daily) for symptoms	No	Preferred treatment for Moderate to Severe Persistent Asthma, compared to high-dose ICS (or ICS/LABA) + PRN SABA. Consider asthma specialist consult if needing higher doses (Step 4+).
	"Mild Persistent Asthma (Step 2): Intermittent SABA + ICS concomitantly"	"Flovent (fluticasone) 44 mcg, or Asmanex (mometasone) 100 mcg HFA"	2 puffs via spacer	every 4 hrs based on symptoms		4 puffs Albuterol, then 2 puffs ICS, every 4 hrs, based on symptoms	Yes	Conditional recommendation. Needs to be a good perceiver of asthma symptoms. Instead, consider using daily maintenance ICS therapy to avoid ICS under-treatment or over-treatment.

Prescription considerations for initiating SMART using Symbicort (budesonide/formoterol) or Dulera (mometasone/formoterol) HFA:

Age range	Medications	Instructions
5-11 y.o.	"Symbicort 80 mcg/4.5 mcg, or Dulera 50 mcg/5 mcg HFA"	"1 puff once daily. When ill, add 1 puff as needed for symptoms (coughing, wheezing or shortness of breath) - up to 8 puffs/day, for up to 5 days."
12+ y.o.	"Symbicort 80 mcg/4.5 mcg, or Dulera 50 mcg/5 mcg HFA"	"1 puff once daily. When ill, add 1 puff as needed for symptoms (coughing, wheezing or shortness of breath) - up to 12 puffs/day, for up to 5 days."

**Insurance considerations:** Most insurances will not fill more than 1 inhaler per month. SMART protocol should require less than 1 inhaler/month, but patient should fill script every month to provide a rescue inhaler to have on hand or at school.

**Inhaler device (HFA vs. DPI) considerations:** MMP PSC Pulmonary does not recommend dry-powder inhalers (DPI) for children due to technique challenges. Also, DPIs have lactose, and may be contraindicated in patients that are lactose intolerant.

Glossary:	DPIs = dry-powder inhalers (e.g. "Diskus, Ellipta, Flexhaler, InHub, RespiClick, Twisthaler")	HFA = hydrofluoroalkane inhalers (i.e. traditional metered-dose inhalers)	ICS = inhaled corticosteroid (e.g. budesonide, fluticasone, mometasone)	LABA = long-acting beta-agonist (e.g. formoterol)	NHLBI = National Heart, Lung, and Blood Institute
	OCS = oral corticosteroid	PRN = as needed	SABA = short-acting beta-agonist (e.g. albuterol)	URI = upper respiratory infection	

Reference: Cloutier MM, Baptist AP, et al. 2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group. J Allergy Clin Immunol. 2020;146(6):1217-1270. doi:10.1016/j.jaci.2020.10.003