



Pharmacy Pearls

(S)MART for Asthma Management in Ages 12+

Contact: AHPPharmacist@urmc.rochester.edu

See AHP's adult asthma medication management Pharmacy Pearl [here](#)

What is (S)MART Therapy?

- SMART or MART, depending on the guideline referenced, stands for (single) maintenance and reliever therapy
- Refers to the use of low-dose ICS-formoterol for both maintenance and reliever therapy in asthma treatment
- Evidence shows this reduces the risk of severe exacerbations while maintaining or improving symptom control compared to similar dose ICS-LABA + SABA PRN or higher-dose ICS + SABA PRN regimens
- Dose can be increased for higher treatment steps
- ICS-formoterol should only be used as a reliever if it is *also* being used for maintenance (i.e., Symbicort® should not be used as a reliever if the patient is using Advair® for maintenance)

The Guidelines

Global Initiative for Asthma (GINA) 2021 Guidelines and National Heart, Lung, and Blood Institute (NHLBI) 2020 Focused Updates to Asthma Management Guidelines list ICS-formoterol* as preferred maintenance and reliever therapy in steps 3 (low-dose) and 4 (medium-dose) for ages 12+

- Now recommended over traditional ICS + SABA PRN or ICS-LABA + SABA PRN therapies
- In step 4, medium-dose ICS-formoterol is used for maintenance but reliever remains at low-dose
- GINA also prefers low-dose ICS-formoterol over SABA PRN for steps 1 and 2

The Dose

- Reliever dose is a single inhalation of either Symbicort® 80/4.5 mcg or Symbicort® 160/4.5 mcg PRN
- Maintenance dose depends on step of therapy
 - “Low-dose”: Symbicort® 80/4.5 mcg- 2 inhalations BID
 - “Medium-dose”: Symbicort® 160/4.5 mcg- 2 inhalations BID[‡]
- Maximum daily dose for ages 12+ (including maintenance and reliever doses): 12 inhalations

*in a single inhaler, only commercially available option in the US is budesonide/formoterol (Symbicort®)

[‡]Though defined as “medium-dose” in the guidelines, this is the maximum strength available for this inhaler device

Clinical Pearls

- Evidence suggests that (S)MART has superior efficacy, is easier for patients to adhere to, and is potentially safer as it might result in reduced corticosteroid exposure
- Rinsing the mouth after PRN use of low-dose ICS-formoterol is not needed- this was not required in the mild asthma studies and no increase in oral thrush was observed
- Formoterol has a rapid onset of action (within a few minutes) along with a higher maximum daily dose, which allows for multiple daily dosing
- Symbicort® does not have an FDA approval for (S)MART- utilizing Symbicort® this way requires off-label prescribing
- **Guidelines suggest that it is not necessary to switch currently well-controlled asthma patients to this regimen** - it simply represents another option to investigate prior to stepping up therapy in uncontrolled patients