

Midyear Abstract

Title: Surveying providers on the use of Single Maintenance and Reliever Therapy “SMART” for the treatment of asthma

Background: Single Maintenance and Reliever Therapy (SMART) refers to the use of a single inhaler that contains a combination of an inhaled corticosteroid (ICS) and formoterol, which is a long-acting bronchodilator. This inhaler is intended to be used for both maintenance and reliever therapy in step 3 (moderate asthma) and step 4 (severe asthma) in the management of asthma as recommended by the Global Initiative for asthma (GINA) guidelines as well as the National Heart Lung and Blood Institute (NHLBI) asthma management guidelines. A meta-analysis on the use of SMART in patients aged 12 or older or children 4-11 years showed a lower risk of asthma exacerbations as compared to conventional therapy for patients with persistent asthma. Despite the evidence supporting the use of SMART, some providers do not follow or are unaware of this recommendation. Furthermore, prescribing practices may vary for both chronic and acute regimens of inhaled corticosteroid (ICS) plus formoterol. Therefore, the use of SMART may be underutilized, and dosing differs amongst providers.

Purpose: To gain a better understanding of how, if at all, providers utilize SMART in patients with asthma.

Methods: The survey was created using Qualtrics and was piloted at SSM Health Cardinal Glennon Children’s Hospital in St. Louis, MO. For the purposes of this project, the survey was refined in order to assess providers on a national level and the questions were adjusted to include patients of all ages. The survey includes 38 questions and assesses providers on how they prescribe SMART for both chronic and acute asthma in different age groups (dose, number of puffs, frequency etc.). It also includes questions about insurance barriers and whether or not providers also prescribe short-acting beta-agonists (SABA) such as albuterol. Prior to distribution, the survey was reviewed by pulmonary pharmacists. Social media was utilized to distribute the survey. These platforms included Twitter, Facebook, and LinkedIn. Additionally, the survey was emailed out to pharmacists on certain Pediatric Pharmacy Association (PPA) listserv to complete or share with their providers.

Results: This survey showed that most providers prescribe SMART in patients 12 years and older. The most utilized dose for all age groups appears to be 160 mcg 2 puffs BID. Number of puffs appears to vary between age groups for acute dosing with the most common frequency being q5-20 mins. Although budesonide/formoterol is the only inhaler with data to support its use for SMART, providers report the use of mometasone/formoterol due to having the same LABA component as well as insurance preference. Insurance issues due to quantity of inhalers and formulary preference are common. Limitations include small sample size, incomplete answers, and predominantly one provider group (pharmacists).

Conclusion: SMART appears to be utilized among providers with 160 mcg 2 puffs BID being the most common regimen, however more data is required to appropriately assess how it is being implemented. Additionally, it was difficult to accurately assess the quantity and frequency of rescue puffs prescribed because the answers provided were very inconsistent.