Reviewer’s report

Title: A Cross-sectional Study of the Identification of Prevalent Asthma and Chronic Obstructive Pulmonary Disease among Initiators of Long-Acting beta-Agonists in Health Insurance Claims Data

Version: 2 Date: 8 October 2013

Reviewer: Elizabeth Wasilevich

Major Compulsory Revisions

1. The authors describe that multiple diagnoses of asthma/COPD were rare, thereby limiting their ability to look at alternate definitions based on more than 1 diagnosis. Since many case definitions do require more than one office visit claim to qualify as asthma/COPD (in the absence of a hospitalization or ED visit), the rarity of this circumstance should be explained a bit more. Was it expected?

2. The authors have not specified whether they looked at only primary diagnoses for inpatient or outpatient claims...or whether they considered all possible diagnoses.

3. Since there are common claims based case definitions for asthma and COPD, the authors should describe why they chose not to use them in this study.

4. The authors state that only those LABA prescriptions filled on the same day as an ICS were considered concomitant therapy. They justify this by stating that this strict approach increases the likelihood of concomitant therapy. If there are 2 active overlapping prescriptions, it is likely that they are taking the therapy concomitantly, even if not filled on the same day. How many persons had overlapping days supply on the filled prescription of the LABA and ICS? In other words, how many may be potentially misclassified as non-concomitant?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.