Reviewer’s report

Title: Prescription of respiratory medication without an asthma diagnosis, not just in young children: a population based study.

Version: 1 Date: 14 November 2007

Reviewer: Thys van der molen

Reviewer’s report:

General
This study contains data from a very large data set and provides detailed information about prescription and diagnosis in primary care for pulmonary diseases in the Netherlands. The study is well written and the citations are from the appropriate literature.

However, I have a number of remarks:

The background of the abstract starts with the wrong logical hypothesis that asthma medication is prescribed more congruent with the diagnosis when asthma is or can be more accurately diagnosed in children. These are two separate phenomena and it is therefore logical that the hypothesis is rejected. Furthermore, most asthma medication will be prescribed by general practitioners when patients come with symptoms and not really with asthma. The diagnosis of asthma especially in older children is a product of severity of symptoms, time, number and impact (parent behaviour) of consultations and last but not least the effectiveness of the medication itself. In my view as a physician that would be logical. It would be better to show the number of pulmonary symptoms as reasons for encounter and relate that to the asthma medication prescriptions and time and show the relationship between these descriptors and asthma diagnosis. I would suggest to add pulmonary symptoms as reasons for encounter and number of consultations.

Furthermore, many primary care Physicians prescribe asthma medication in order to get more certainty about the diagnosis during follow up. Trial and error medication should be considered and preferably excluded by excluding all children who had only one prescription for asthma medication.

From the same set of data we know that although young children seldom for certain can be diagnosed with asthma, GP’s in the Netherlands very often diagnose asthma in children from 1-2 years old (as stated later in the article 11,6 %) this indicates that the physicians diagnosis of asthma in these age groups is profoundly flawed.

The diagnosis of asthma in the age group of between 0-4 years old in GP practice is so difficult and uncertain that I recommend to exclude these age groups from the sample. This clear overdiagnosis of asthma disappears when
children reach the age of 5 or 6. To my opinion not really because the diagnosis has become more clear but because less children visit the GP because of symptoms.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
none

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
none related to this article or subject.