Reviewer's report

Title: Health burden and economic impact of measles-related hospitalizations in Italy in 2002-2003.

Version: 2 Date: 13 January 2007

Reviewer: Hester E de Melker

Reviewer's report:

General

The authors improved the paper. Still some issues remain to make the paper more valuable.

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

Please shorten the introduction. E.g. the last paragraph regarding the national database could be described in methods section of mentioned in discussion.
The part that hospitalization are 40-50% of direct costs of measles cases etc. is double with discussion. Please only mention it in discussion section.

Results

The results should be described in a more structured manner.
The first part of the results has overlap with other headings e.g. diagnoses/complications. Please make sure that you structure the results section in a way that no overlap exists. This could probably be best done by leaving out the first part of the result.

In table 2 too much detail is given with respect to region; please leave out. This would be useful when you have information with regard to susceptibility level in the population or vaccine coverage and relate this to the incidence. You could make a geographical figure from Italy showing with different colors the incidence. This would make the north south gradient visible. In table 4 is shown that the length of hospital stay differs somewhat between regions? Why? Age-difference, other complication rate?

Length of hospital stay: please relate this to age.

The information with regard to diagnoses/complications could better be summarized in a table and only shortly described in the text, i.e. extent table 4 (other comment Table 4: the columns does not add to 100, because one row is left out?)
Do you have information with regard to the secondary discharge diagnoses? What is meant by no associated secondary diagnoses?

Costs part is very short; please specify it according to measles with and without complication when that is possible.

Discussion

Why is using DRG advantage? Easy to apply, but less accurate? Is it applicable to other countries?
Otherwise what is the reason for mentioning as unique characteristic of the study.
Please shorten the paragraph on page 14 (In Italy, approx etc .... and their related costs).

The number of reported deaths is lower than found in the Campania region. As reason reporting of a different discharge diagnosis is given. What does this observation imply for the rest of the observations in terms of completeness.

What is the (possible) reason for many hospital admissions without a complication? What is the reason for admission?

At what frequency do you expect that readmission in the hospital occurred?

Please discuss the difference found between regions; e.g. relate it to vaccination coverage, susceptibility
level. This could make the message that high vaccination coverage is essential, more pronounced. Please shorten the part of the conclusion with regard to the elimination plan for measles and CRS.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Would it not be better to calculate the median of ages as well as median of hospital stay and give the range? Was the length of stay normally distributed?

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Discretionary Revisions (which the author can choose to ignore)

It would be of interest to study the different DRG rates between regions also for other diseases to explore the differences between regions (other study)

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

Declaration of competing interests:

I declare that I have no competing interests.