Reviewer's report

**Title:** Association of RSV-Related Hospitalization and Non-compliance with Palivizumab among Commercially Insured Infants: A Retrospective Claims Analysis

**Version:** 1  **Date:** 23 April 2013

**Reviewer:** Bernhard Resch

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Review

Association of RSV-Related Hospitalization and Non-compliance with Palivizumab among Commercially Insured Infants: A Retrospective Claims Analysis by Dan L. Stewart, MD1,2; Kellie J. Ryan, MPH3; Jerry G. Seare, MD4; Brett Pinsky, MPH4; Laura Becker, MS4; Michael Frogel, MD5

The authors included subjects who were born and discharged from the hospital before the RSV season and had received #1 palivizumab dose during their first RSV season identified from a large US commercial health insurance database between 01/01/03 and 12/31/09.

Cox proportional hazard model was used to evaluate the association between non-compliance and RSV-related hospitalization.

Of the 5,003 subjects who received palivizumab, a high proportion of 62% were deemed non-compliant, who had significantly higher unadjusted rates of RSV-related hospitalizations compared to compliant subjects during both observation periods. In multivariate analyses, noncompliance was significantly associated with a doubled risk of RSV-related hospitalization, and 27% occurred before the first dose of palivizumab was given.

The authors concluded that subjects who did not receive monthly dosing of palivizumab throughout the RSV had significantly higher rates of RSV-related hospitalizations.

1. Is the question posed by the authors well defined? Yes
2. Are the methods appropriate and well described? Yes
3. Are the data sound? Yes
4. Does the manuscript adhere to the relevant standards for reporting and data deposition? Yes
5. Are the discussion and conclusions well balanced and adequately supported by the data? Yes
6. Are limitations of the work clearly stated? Yes
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes
8. Do the title and abstract accurately convey what has been found? Yes
9. Is the writing acceptable? Yes

Results of this excellent study are somewhat disappointing regarding compliance with palivizumab prophylaxis to avoid severe RSV illness with subsequent hospitalization, but this is a personal comment by the reviewer.

Nevertheless some reports regarding non-compliance have been already published this seems to be an important paper being worth to be published by the Journal.

Maybe a further study on the details regarding non-compliance and measures that might increase compliance would be of interest.

No further major or minor comments.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

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