Reviewer's report

Title: Cost Effectiveness of a pentavalent rotavirus vaccine in Oman

Version: 1 Date: 14 April 2014

Reviewer: Silvia Pérez-Vilar

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Major compulsory revisions:

Intussusception, a severe adverse event associated to pentavalent rotavirus vaccines in several post-licensure studies (Buttery et al, Vaccine 2011; Yhi et al, NEJM 2014, Carlin et al, CID 2013) has not been taking into account in the cost-effectiveness analysis. It should be fixed prior to publication.

Minor essential revisions:

Misspelling in line 241 ("i on")
Misspelling in line 288 ("competeing")

Discretionary revisions:

I would like to see more detailed in "Analytic perspective and outcome measures" what is exactly taken into account to measure the outcomes (or at least refer to the Tables).

Efficacy assessment reducing hospitalizations, ED and outpatient visits, and days of parental work loss have been based on a clinical trial (REST) conducted mainly in industrialized countries: efficacy (effectiveness) could be lower in Oman as shown in other clinical trials performed in low-middle income countries.

Data on effectiveness in incomplete vaccination regimens have been recently published (as Wang et al, PIDJ, 2013; Chang et al, PIDJ, 2014). Assumptions in the study under revision (50%) are lower than the assessments published, mainly considering 2-dose schedule. On the other hand, the referenced study (Boom et al, Pediatrics, 2010) showed an effectiveness against hospitalizations and ED visits lower than the REST trial. Boom et al. justified this saying that they evaluated less-severe rotavirus disease than REST. I would prefer all assumptions in the study under revision based on similar criteria.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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

I am working for the Vaccine Research Department at FISABIO-Public Health, Valencia, Spain. My institution participates in clinical trials and post-licensure studies funded by Merck, Sanofi Pasteur-MSD, and GSK.