Reviewer's report

Title: Burden of paediatric rotavirus gastroenteritis (RVGE) and potential benefits of a universal rotavirus vaccination programme with a pentavalent vaccine in Spain

Version: 2 Date: 24 April 2010

Reviewer: Mark Jit

Reviewer's report:

I'm happy with the authors' response (2) and (3) to comments on no medical care / partial doses.

Major compulsory revisions

1. Vaccine waning: I'm not sure what the authors mean by “conservative” with respect to waning. Their current assumption of a single 10% reduction in vaccine efficacy by year 2 is the most optimistic possible given trial results. A more pessimistic scenario they propose would be to consider further 10% reductions in subsequent years; I suggest this be shown as a scenario, if only to show as they say that it will “not have any impact on the base case results” (I presume they mean will have a very small impact rather than no impact at all). An exponential decrease would be in between those two scenarios in terms of impact, but it is ok if they do not want to use this.

2. I disagree that a PSA is only relevant for a cost-effectiveness analysis. The purpose of PSA is to ensure that the joint uncertainty in parameter values is reflected in the final results (in this case the total vaccine-preventable burden of disease), hence it is relevant in a burden of disease study as well as a cost-effectiveness analysis. If the authors do not want to conduct a PSA due to computational difficulty, I suggest they use another method of reflecting this joint uncertainty eg. extreme case analysis.

Discretionary revision

1. Cost-effectiveness: The authors state that they did not evaluate cost-effectiveness because of uncertainty around the likely price that would be paid for the vaccines. I agree that this is likely to be lower than the market price; however, this is an issue with all economic evaluations of vaccines in Europe, and it has not prevented other studies using estimates of likely vaccine price. If the authors feel that such estimates are really impossible, then they could at least calculate the threshold price for cost-effectiveness at suitable thresholds (eg. cost per QALY at per capita GDP) or present cost-effectiveness ratios at a range of prices. However, at the end of the day, though I'm not convinced by the authors’ argument, I think it is up to them what analyses they wish to do, so I would consider this a “discretionary” revision.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests.