Reviewer's report

Title: Prevalence of measles antibodies among health care workers in Catalonia (Spain) in the elimination era

Version: 2 Date: 16 March 2013

Reviewer: Robin Biellik

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Minor essential revisions:

1. Because different countries use monovalent measles vaccine, measles-rubella (MR) vaccine, or measles-mumps-rubella (MMR) vaccine, we usually refer in journal articles to measles-containing vaccine (MCV) to cover all situations. To prevent measles, we need only recommend MCV, not MMR, since the mumps and rubella components have no influence on measles. Suggest you replace MMR with MCV throughout the paper. First dose is MCV1, second dose is MCV2.

a. Abstract, page 2, line 16 – “…two doses of measles-containing vaccine…”
b. Introduction, page 3, line 6-7 -- “…two doses of measles-containing vaccine (MCV)…”

2. Intro, page 3, line 9-10 – “In 1988, the recommended age of receiving MCV1 vaccination was raised to 15 months and MCV2 vaccination at 11 years of age was introduced to replace the monovalent rubella dose, in accordance with recommended measles elimination strategies”. Similar language should be inserted in sentence on lines 22-23.

3. Intro, page 3, lines 19-20 – can you also report the incidence rate corresponding to the 381 cases that occurred during 11 months in 2006-07?

4. Intro, page 3, lines 23-24 – “…because protection of infants due to passively-acquired maternal antibodies is less long-lasting in vaccinated mothers not exposed to wild measles virus.”

5. Methods, page 3, lines 36-37 – should state whether the sample of health facilities was random, that is, the selected health facilities are considered representative of all health facilities, or if it was a convenience sample. This is mentioned on page 6, but it should be stated in Methods.

6. Methods, page 3, lines 37-39 – should state what proportion of total HCWs participated, or if there were refusals, and the reasons (if known) for refusal. Alternatively, this could be reported in the Results section. This is mentioned on page 6, but it should be stated in Methods.

7. Methods, page 4, lines 3-4 – “If available, the vaccination card was also reviewed.”

8. Methods, page 4, lines 5-7 – should mention the reason why you chose to
assay measles IgG and not, for example, measles IgM.

9. Methods, page 4, line 10 – “Data processing and analysis were carried out…”

10. Results, page 4, lines 24-26 – Need to split into two sentences.

11. Discussion, page 5, line 6 – “…resulted in near-universal exposure…”

12. Discussion, page 5, line 7 – “Susceptible individuals may be found in population cohorts born between 1965 and 1980,…”

13. Discussion, page 5, lines 14-15 – “…120 outbreaks were reported throughout the region during the period 2005-2008.”

14. Discussion, page 5, lines 14-25 – This paragraph does not flow well and should be re-written. It is not clear if you are referring to developed countries in the European region or worldwide (references 17 and 18 suggest a worldwide scope).

15. Discussion, page 5, line 26 – “Because HCW are at extremely high risk of acquiring measles from patients or transmitting measles to patients and co-workers in medical settings,…”

16. Discussion, page 5, line 39 – please spell out HICPAC.

17. Discussion, page 5, lines 39-40 – “…replacing it with laboratory confirmation of measles as required evidence of measles immunity.”

18. Discussion, page 6, line 3 – “…measles serology should be required…”

19. Discussion, page 6, line 4 – “The data should be stored…”

20. Discussion, page 6, lines 9-15 – this paragraph is too vague. Quantitative information is required. See comments 5 and 6 above.

21. Reference 15, page 8 – please correct spelling of authors’ names.

General comment: The paper suggests the authors are primarily concerned with protecting HCW from measles infection. However, it should be noted in the paper that susceptible patients suffering other conditions, especially severely ill patients in intensive care units and the elderly, are at high risk of severe disease or death if infected with measles by a HCW. Therefore, the primary reason for ensuring that HCW have documented proof of measles immunity is to prevent morbidity and mortality among patients. Therefore, you might consider revising the final paragraph to recommend that documented proof of measles immunity (positive serology or documented evidence of receiving MCV2) should be a condition of employment for HCW, with no exceptions.

Discretionary revision:


Level of interest: An article of importance in its field
Quality of written English: Acceptable

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

Declaration of competing interests:

No competing interests.