Reviewer's report

Title: Suitability of vaccinia virus and bovine viral diarrhea virus (BVDV) to determine activity against enveloped viruses of three commonly used alcohol-based hand rubs

Version: 1 Date: 11 September 2006

Reviewer: Julian Druce

Reviewer's report:

General

Again the titre of stock viruses is not mentioned. There is inclusion of additional viruses (2 strains of Influenza) and this would have given the opportunity to include the titre on these new strains. Accepting the authors words that "the infectious titre was high enough but too many experiments were involved to get this information" is not good enough. The titration of unexposed 'stock' virus should have been performed at the time of all experiments, at the very least as a baseline control. All other results 'post disinfectant exposure' hinge off this vital piece of information which is missing. Without it, it is difficult to be confident about the titre reductions quoted. What are they referenced against? How do they calculate log reductions of 4 or 5?

Determination of cytotoxicity is incomplete. The authors say that disinfectant was diluted as with virus and applied to permissive cells. What then? There is no mention of how anything was assessed, microscopy, MTT assay?? At the very least if no cell changes were observed microscopically it should have indicated this.

Infectivity assessment is based only on cytopathic effects. There appears to be no mention of any confirmatory assessment whether by IF of cells or Ag detection or even PCR? As some cytotoxicity was observed in some of the agents tested there needs to be some mechanism to differentiate between it and viral CPE.

The performance of only one test in these experiments is dangerous. Even though the results might be the same if 4 replicates were conducted, the reader has far more confidence in the results.

The table shown should specify what the identities of the various agents are. It would make it far easier on the reader rather than having to refer back to the body of the manuscript.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
Determination of titre reduction. How have they come up with the desiganted value when there appears to be no baseline control?

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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)
Include the identities of the hand rubs in the Table.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: No

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