Reviewer's report

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

Version: 2 Date: 5 December 2006

Reviewer: Julian Druce

Reviewer's report:

General
The Authors have addressed the issues raised previously. They have indicated the titres of the viruses used in the experiments and how they have determined the reduction in titre.

The Authors must be mindful of how the results and conclusions will be interpreted in a healthcare setting. They make a statement in the conclusions that could give a false sense of security and needs to be re-worded.

Also there are still a few typos and some minor corrections to address.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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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)

On Page 10-Authors write
"On the basis of our data and the results from Larson and Bobo, it is unlikely that the presence of blood would significantly impair the activity of alcohol-based hand rubs ... The healthcare worker who uses an alcohol-based hand rub for 30s can therefore rely on our findings that standard organic loads do not reduce activity...

This conclusion/comment is potentially dangerous as the average healthcare worker will not know the difference between enveloped and non-enveloped viruses. Also the organic loads used (although fitting in with guidelines and standards) do not reflect all situations that may potentially be encountered. Gross contamination of undiluted blood IS LIKELY to impair the activity of the hand rubs and these agents are really designed to be used on relatively unsoiled hands. A sentence should be included that suggests this-something like 'In cases of gross contamination maximal bioburden removal should be achieved before using the hand rubs to maximise their efficiency'

A comment should be included somewhere (maybe in the final conclusion) that suggests that the same activity may not be found against non-enveloped viruses such as Norovirus and this should be taken into consideration by users.

page 3
'according to prEN12054 (now prEN 13727) change to
'according to prEN13727 (formerly prEN12054)'

page 5
BGM Cell (buffalo green monkey cells should be
buffalo green monkey cells (BGM)

Panama strain capitol 'P'

page 8
the reduction factor calculation.
in 'b' change rest to test
Discretionary Revisions (which the author can choose to ignore)

The inclusion of the reduction factor calculation method could be omitted if the Authors rework their table to include the untreated virus controls titre recoveries. i.e. have an additional line or column that has untreated virus/or water treated virus and the final titres recovered for all and the next column showing the titre reduction.

The calculation of titre reduction is easy and readers will know how it was determined. The original criticism was that the control/untreated titre or starting titre was not included so it was not possible for the reader to know how they reached this figure.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests