Reviewer's report

Title: How does healthcare worker handwashing behaviour impact upon the transmission of MRSA between patients? : an analysis using a Monte Carlo model

Version: 2 Date: 11 March 2009

Reviewer: Ronan Murray

Reviewer's report:

Thank you for asking me to reviewed the revised manuscript.

1. Discussion, paragraph 1: "From Figure 4 it can be seen that for the worst case scenario (i.e. for a HCW travelling from Patient A (the index case) to Patient B, without washing their hands), the risk of MRSA transmission is only about 4% - percentage that, while still relatively high, is much lower than most would anticipate given no hand hygiene at all"

In my opinion this sentence needs grammatical review (using the terms "only" and "relatively high" when referring to the same proportion (4%) doesn't make sense to me; in addition there is an "a" missing before percentage).

In addition I am not sure the what phrase " lower than most would anticipate" is based on - published data of transmission likelihood, or the authors opinion? This needs to be clarified.

2. the terms "hand washing" and "washing their hands" are still being used interchangeably with "hand hygiene" in the discussion despite assurances from the authors this had been addressed.

3. in addition, the term "staphylococcal" is still being used when methicillin-resistant Staphylococcus aureus / MRSA is meant in the discussion (eg para 2, line 3)

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.