

Reviewer's report

Title: Modeling Microbial Survival in Buildup Biofilm for Complex Medical Devices

Version: 3 **Date:** 30 January 2009

Reviewer: Lawrence Muscarella

Reviewer's report:

The authors have made a genuine attempt to resolve my concerns and answer my questions. A few comments remain: (1) Please have the authors correct the verb that follows "data," as this is a plural, not single, subject, which the verb must reflect. (2) The revised text of the manuscript states that: "Despite these findings there are no prospective published reports in the medical literature directly linking an endoscope, cleaned in accordance with current reprocessing standards and guidelines and not defective in design, to transmission of an infectious agent (biofilm associated or not) from one patient to another patient." Please change the text to include, in addition to its statement: "from one patient to another patient," the statement: "or from the environment to the patient." Biofilms are not exclusive to patients but also form on environmental surfaces.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I am unaware of any direct financial or non-financial competing interests in relation to this paper. However, I am currently employed by Custom Ultrasonics, Inc, a manufacturer of washer-disinfectors. Presumably my employer could gain or lose financially from the publication of this paper. Arguably, my employer could benefit from the publication of this paper; the sale in the U.S. of an effective hydrogen-peroxide product might cause my employer's products, which can be used with hydrogen-peroxide high-level disinfectants to reprocess GI endoscopes, to appear more attractive. I do not hold any patents relating to the content of the manuscript. (I do hold a patent that describes a simulated in-use method for evaluating the effectiveness of a process used to decontaminate reusable medical devices.)