

Peer Review File

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Reviewer A

This is an important topic and I applaud the authors for embarking on evaluating the different standards used to sterilize robotic equipment.

I only have a few questions that need clarification:

Question 1. Do the authors mean only disposable robotic instruments, or are things like the automatic stapler handle and the laparoscope also included in this survey? A more precise breakdown of what robotic instruments are sterilized would be helpful for the reader. Specifically, please make it clear if only DISPOSABLE robotic instruments that attach to the da Vinci robot are being used.

Reply 1: Only the medical institutions that conduct da Vinci robotic-assisted surgeries were included in this study.

Changes in the text: None.

Question 2. Also, what generation of da Vinci system were used. Were multiple generation utilized?

Reply 2: Multiple generation were investigated in this study.

Changes in the text: None.

3. Do the authors have any recommendations for a national standardization of sterilization practices? Is there a national government body that oversees this in China, or is up to the individual regions in China.

Reply 3: The author suggests that a Standard Operating Procedures (SOP) be established for robotic instruments sterilization? The current regulatory agency in this field is the Food and Drug Administration of China.

Changes in the text: None.

4. Could the authors expand a bit as to how the practice of sterilization in China is different to the standard in the US, Europe and elsewhere? If there are differences, could the authors explain why?

Reply 4: There are no differences in the practice of sterilization between China and other countries in the world.

Changes in the text: None.

5. Lastly, due to the difficulty in sterilizing endoscopes, there is now a tendency to use single use endoscopes. I think it would be helpful to the reader to know about this trend. Understanding the complexities of sterilization of endoscopes would help the reader understand the intricacies of sterilizing reusable robotic instruments the approximately 10 times that the manufacturer allows.

Reply 5: Disposable endoscopes have significant advantages in terms of cleaning and disinfection, but they are currently not a routine clinical practice in China.

Changes in the text: None.

Reviewer B

First, the title needs to indicate the research design of this study, i.e., a cross-sectional survey.

Reply 1: The title has been revised according to your suggestion.

Changes in the text: Page 1, Line 3.

Second, the abstract needs some revisions. The background did not indicate the limitations and knowledge gaps on this research focus in the literature. The methods did not describe the sampling of subjects, inclusion criteria, way of questionnaire administration, and how the data were analyzed. The results did not report the characteristics of the study sample or the sample of medical institutions involved in this survey. The conclusion needs more detailed comments for the clinical implications of the findings.

Reply 2: The “Abstract” section has been revised according to your suggestions.

Changes in the text: Page 3, Line 1-30

Third, the introduction did not review what has been known on the cleaning, disinfection, and maintenance of da Vinci robotic surgical instruments in the world and what the limitations and knowledge gaps of prior studies. It is also important to describe the negative consequences of the poor disinfection management of da Vinci robotic surgical instruments.

Reply 3: Thank you very much for the valuable question raised by the editor. The above is common knowledge for nursing and surgical personnel. If the previous research results in the relevant field are described, it would be too cumbersome. Please consider whether it is possible not to add them.

Changes in the text: None.

Fourth, the methodology of the main text cannot be so simple. Please describe the research design, sample size estimation, and the development of the survey instrument. The authors need to describe how the medical institutions were selected, inclusion criteria, and the sample representativeness. Please use to a table to describe the content of the questionnaire. A part on the characteristics of the study institution is also needed. The statistics needs to describe the statistical software used and how the data were analyzed.

Reply 4: The statistical analysis section of the methodology has been revised according to your suggestions. The author analyzed the categorical variable and continuous variables narratively in this study.

Changes in the text: Page 5, Line 1-8