Author’s response to reviews

Title: Influence of oral premedication and prewarming on core temperature of cardiac surgical patients: A prospective, randomized, controlled trial

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REVIEWER COMMENTS

Reviewer #1

The authors investigated the hypothesis that the premedication with flunitrazepam would lower the preoperative core temperature and that prewarming could attenuate this effect. This study has important clinical significance. However, the following problems exist.

1. Because all patients enrolled must sign an informed consent form, the following sentence is redundant "if written informed consent for anaesthesia and surgery was signed by the patient" Line 28-29, on page 6.

The informed consent for the study is mandatory as is the consent for anaesthesia and surgery. All consent forms, for the study, for anaesthesia, and for surgery, were checked before induction of anaesthesia and execution of the study protocol.
2. Because the core temperature of the patient before the start of surgery was documented in this study, the authors should supplement with how the surgical disinfection is carried out, and the warming measures taken.

The manuscript has been changed accordingly, and the surgical desinfection has been described in more detail.

3. On Line 7 page 8 the authors should explain the specific reasons for exclusion.

The specific reason for exclusion has been added.

4. The following sentence on page 8 is redundant,"The Null-hypothesis that the premedication with flunitrazepam does not change the core temperature was rejected."

This sentence is a result and stated for the first time.

5. In Figure 2 and Figure 3 specifically refers to which group of patients, or all patients, please specify.

A sentence has been added that Figures 2, 3, and 4 refer to all patients.

6. The following sentence on page 9 is redundant,"The Null-hypothesis that prewarming with forced-air would not make a difference at beginning of surgery compared to no prewarming was also rejected."

This sentence is a result and stated for the first time.

7. On page 10, line 9, it should be pointed out what the specific hypotheses are.

The paragraph has been edited and the specific hypotheses were described in more detail.
Reviewer #2

It is an interesting and well-designed study. It appears to have been conducted rigorously. In my opinion it stands a good chance of being published in a cardiac surgery or cardiac anesthesia journal.

Some improvements could be made to the manuscript to increase the likelihood of acceptance; I will outline these below.

REQUESTED REVISIONS:

There are two hypotheses: these should be explicitly stated in the last paragraph of the Introduction. This is not an issue in the Abstract.

The corresponding paragraph has been edited and the two hypotheses are described in more detail.

You mention 'hypothermia', but not how you defined this: please include.

Correct. Hypothermia has been defined more specifically.

I got a bit confused with the term 'treatment group', particularly in the Abstract. I recommend changing this to ‘pre-warming group’ throughout, to avoid confusion with benzodiazepine treatment.

The groups have been renamed in prewarming group and control group, and the manuscript has been changed accordingly.
Table 1 would benefit from a column on the right with p values for each parameter.

A column with the p-values has been added to the table.

Were the changes in core temperature really statistically significant to p <0.001? The error bars seem to overlap.

Although the error bars seem to overlap, the changes in core temperature were statistically significant to p <0.001.

Also, the pre-warming data are not presented in a graph. Why not? It was one of your main hypotheses, yet you present the Ramsay Score, which was not.

A figure with the according data has been added to the manuscript.

There were more limitations than acknowledged: flunitrazepam was not administered by patient weight; it was a single center study; the sample size was small. Reviewers will expect these issues to be discussed.

Correct. The paragraph describing the study limitation has been changed accordingly.

ADDITIONAL REQUESTS/SUGGESTIONS:

The manuscript is well written but there are a few grammatical errors that would benefit from being corrected. Please ensure that the manuscript is given one final read-through by a native English speaker before submission.

A native English speaker had a final read-through before submission.