Reviewer’s report

Title: A prospective observational study testing liquid crystal phase change type thermometers placed on skin against oesophageal/pharyngeal placed thermometers in participants undergoing general anaesthesia

Version: 0 Date: 12 Jul 2019

Reviewer: Anselm Bräuer

Reviewer's report:

General comments:

The manuscript „A prospective observational study testing liquid crystal phase change type thermometers placed on skin against oesophageal/pharyngeal placed thermometers in participants undergoing general anaesthesia.” has undergone profound changes after the reviews.

Abstract:

Results

…were not impacted by the use of a forced air warmer.

The way I understand the manuscript the word "not" must be deleted. See page 14 (This plot demonstrated a significant number of readings over 37.5 °C which may have been caused using an FAW.)

Or it must be written as "skin temperature monitor over the forehead".

However, as there are forced-air warming blankets available, that also cover the forehead I would prefer to state that forced-air warming influenced the reading of the thermometer.

Background

The background section is now short and to the point.
Methods

Page 5, para 3: The location of one temperature probe is described as "behind the ear (over major vessels to the brain)". In the results section page 7, para 1 it is called "carotid". Please use the same wording throughout the paper.

Page 5, para 4: This section does not belong into the method part. It may be used partially in the discussion section.

Page 5, last sentence:

Can be deleted

Page 6: The sentence "The recommendation is that 95% of the data points must fall within two standard deviations of the bias line" must be deleted.

Results

The Bland-Altman plots need a correct labeling (what is shown on the axis)

Some figures give the number of patients studied and the number of data used whereas others do not. Please give the numbers in every figure.

It seems that fig 3a and 3b do not fit to the text. This is not correct and must be changed!

Page 18, 2 para: This does not belong to the results section.

Discussion

The discussion was totally rewritten as requested.
Page 20, 2 para: "These findings were not affected when a FAW was used" is misleading. I would rather state that most measurement sites were affected by forced-air warming.

Page 21, last para: This para can be shortened and once again it should be stated that forced-air warming influenced the readings of the thermometer.

Conclusions

The last sentence "Future research is required to find the most suitable location and device for temperature monitoring in an awake patient where the availability of non-invasive temperature monitors is limited" can be deleted.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

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I am able to assess the statistics

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