Reviewer's report

**Title:** Temporal artery versus bladder thermometry during adult medical-surgical intensive care monitoring: an observational study

**Version:** 1  **Date:** 5 July 2010

**Reviewer:** Rainer Lenhardt

**Reviewer's report:**

This is an observational study comparing performing two thermometers for monitoring in critically ill patients.

A temporal artery and a bladder thermometer

The study is well performed, the manuscript is written well.

page § 2: I would not say that bladder thermometers are impractical and invasive. Critical care patients need a bladder catheter per definition. A bladder catheter is a semi-invasive tool.

Limitation of rectal thermometers are that temperature measurements lag behind, if there is a sudden change in temperature (such as seen in the development of fever)

Another limitation should be increased likelihood of cross-contamination (e.g. C.diff)

References: Ref 11 erase "table of contents"

page 9 § 1:1 would be careful to conclude that temperatures below 36° are systematically overestimated by the temporal artery thermometer due to the low number of hypothermic events

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests