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Title **Short Report: Temporal Artery Thermometry in the Postoperative Setting**

Agency **VATAP, VA Technology Assessment Program**
Office of Patient Care Services, Room D4-142, 150 South Huntington Ave (11-T), Boston, MA 02130, USA;
Tel: +1 857 364 4469, Fax: +1 857 364 6587

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Aim

To provide a rapid, qualitative systematic review of the best available evidence of the clinical utility of temporal artery thermometry (TAT) to inform development of new quality measures in the US Department of Veterans Affairs (VA) postoperative care.

Conclusions and results

The searches yielded 85 citations, including 11 studies comparing TAT to another thermometry device. The best available evidence consists of 2 preliminary studies, with conflicting results, that compare the diagnostic accuracy of TAT to pulmonary artery catheter measurement in mixed adult inpatient populations. No HTA reports or systematic reviews on this topic were identified. The review found a lack of conclusive evidence supporting the clinical use of TAT as an instrument for measuring core temperature in adult inpatient populations, including those in the postoperative setting.

Recommendations

Given the paucity of the current evidence base, this device cannot be recommended for routine use in VA postoperative patients at this time.

Methods

We searched MEDLINE, PUBMED, EMBASE, the Cochrane Library, and Current Contents from 1990 to April 2006 for temporal artery thermometry, body temperature, arterial temperature, and infrared thermometry. The FDA Center for Devices and Radiological Health and manufacturer Web pages were searched for information relating to regulation and clinical use of TAT. VATAP queried INAHTA colleagues via its electronic listserv on April 26, 2006 for completed HTA reports or ongoing reviews on the subject. Inclusion criteria were fulltext studies of the clinical use of TAT for adults in postoperative settings with emphasis on diagnostic performance. Excluded from the review were studies published in languages other than English of pediatric patients or of devices not commercially available in the US. For quality appraisal of included studies, VATAP applied the Standards for Reporting of Diagnostic Accuracy framework.

Further research/reviews required

Several investigators have called for improved study quality and quality monitoring of new thermometry devices in the appropriate clinical setting, and with a range of suitable patients, to confirm the safe use and clinical value of the devices.

Written by Elizabeth Adams, VATAP, USA

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