TITLE: Alternate Methods of Warming Intravenous Fluids: Clinical Effectiveness

DATE: 10 May 2010

RESEARCH QUESTIONS:

1. What is the evidence regarding the use of alternate methods of warming intravenous fluids?

2. What is the evidence regarding alternate methods of measuring the temperature of warmed intravenous fluids?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 4, 2010), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI (Health Devices Gold), EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between January 1, 2005 and April 29, 2010. No filters were applied to limit the retrieval by study type. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

RESULTS:

HTIS reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, controlled clinical trials, and observational studies.

One observational study was identified pertaining to the use of alternate methods of warming intravenous fluids. No relevant health technology assessment reports, systematic reviews,
meta-analyses, randomized controlled trials, or controlled clinical trials were identified. Additional information that may be of interest has been included in the appendix.

OVERALL SUMMARY OF FINDINGS:

Overall, there is limited evidence available pertaining to the use of alternate methods of warming intravenous fluids and of measuring the temperature of warmed fluids. One observational study was identified and the authors suggest that a microwave oven is a safe method for warming crystalloid fluids and suggest formula for calculating the appropriate warming time.¹ No information regarding alternate methods of measuring the temperature of warmed intravenous fluids was identified.
REFERENCES SUMMARIZED:

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses
No literature identified.

Randomized controlled trials
No literature identified.

Controlled clinical trials
No literature identified.

Observational studies


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APPENDIX – FURTHER INFORMATION:

Observational studies


Review articles


Additional references

