TITLE: Carbon Dioxide Monitoring Devices: Reliability, Clinical and Cost Effectiveness

DATE: 10 December 2008

RESEARCH QUESTIONS:

1. What is the comparative clinical effectiveness of different carbon dioxide monitors used in hospital settings?
2. Are some carbon dioxide monitors more reliable than others?
3. What is the cost effectiveness of different carbon dioxide monitors?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 4, 2008), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international health technology agencies, and a focused Internet search. Results include articles published between 2003 and December 2008, and are limited to English language publications only. Filters were applied to limit the retrieval to systematic reviews, health technology assessments, meta-analyses, randomized controlled trials, controlled clinical trials, observational studies, and economic studies. Internet links are provided, where available.

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.

The literature search did not identify any health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or controlled clinical trials on the reliability, clinical or cost effectiveness of carbon dioxide monitoring devices in hospital settings. Seventeen observational studies examining specific brand name devices were identified. Additional articles of potential interest are included in the appendix.

Disclaimer: The Health Technology Inquiry Service (HTIS) is an information service for those involved in planning and providing health care in Canada. HTIS responses are based on a limited literature search and are not comprehensive, systematic reviews. The intent is to provide a list of sources of the best evidence on the topic that CADTH could identify using all reasonable efforts within the time allowed. HTIS responses should be considered along with other types of information and health care considerations. The information included in this response is not intended to replace professional medical advice, nor should it be construed as a recommendation for or against the use of a particular health technology. Readers are also cautioned that a lack of good quality evidence does not necessarily mean a lack of effectiveness particularly in the case of new and emerging health technologies, for which little information can be found, but which may in future prove to be effective. While CADTH has taken care in the preparation of the report to ensure that its contents are accurate, complete and up to date, CADTH does not make any guarantee to that effect. CADTH is not liable for any loss or damages resulting from use of the information in the report.

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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
