TITLE: Heparin Prophylaxis for Hospitalized Patients at Risk for Thrombotic Events: Clinical Effectiveness and Safety

DATE: 31 March 2011

RESEARCH QUESTION

1. What is the clinical effectiveness and safety of unfractionated heparin prophylaxis for the prevention of thrombotic events in hospitalized patients?

2. What is the clinical effectiveness and safety of low molecular weight heparin prophylaxis for the prevention of thrombotic events in hospitalized patients?

KEY MESSAGE

The evidence suggests that unfractionated heparin and low molecular weight prophylaxes demonstrate some clinical effectiveness and safety in the prevention of thrombotic events in hospitalized patients.

METHODS

A limited literature search was conducted on key resources including MEDLINE, PubMed, The Cochrane Library (2011, Issue 3), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses and randomized controlled trials. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2001 and March 24, 2011. Internet links were provided, where available.

RESULTS

Rapid Response 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.

Disclaimer: The Rapid Response Service is an information service for those involved in planning and providing health care in Canada. Rapid 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. Rapid 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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Nine systematic reviews and meta-analyses and 28 randomized controlled trials were identified relevant to the comparative effectiveness and safety of unfractionated heparin and low molecular weight heparin prophylaxis for the prevention of thrombotic events in hospitalized adult patients. Additional information of potential interest has been included in the appendix.

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses


Randomized controlled trials


2009 Apr;17(1):1-5.  
PubMed: PM19398783

PubMed: PM19258618

PubMed: PM19187076

PubMed: PM19367397

PubMed: PM19132200

PubMed: PM19487235

PubMed: PM19411100

PubMed: PM19132191

PubMed: PM18843459


PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca
APPENDIX – FURTHER INFORMATION:

Health technology assessments (abstract not provided)


Systematic reviews and meta-analyses (abstract not provided)


   Structured abstract available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=12009101993 [cited 2011 Mar 31].

   Structured abstract available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=12009107036 [cited 2011 Mar 31].


44. Rasmussen MS, Jorgensen LN, Wille-Jorgensen P. Prolonged thromboprophylaxis with low molecular weight heparin for abdominal or pelvic surgery. Cochrane Database Syst
PubMed: PM18158080
Structured abstract available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=12008008032 [cited 2011 Mar 31].

PubMed: PM17217642
Structured abstract available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=12007000280 [cited 2011 Mar 31].

PubMed: PM17310052
Structured abstract available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=12007008071 [cited 2011 Mar 31].