TITLE: Automation for the Preparation of Intravenous Solutions for Acute Care Patients: Cost-Effectiveness and Safety

DATE: 28 June 2013

RESEARCH QUESTIONS

1. What is the cost-effectiveness of automation (or robotics) for the preparation of intravenous solutions for patients in acute care?

2. What is the safety of automation (or robotics) for the preparation of intravenous solutions for patients in acute care?

KEY MESSAGE

Two non-randomized studies were identified regarding the safety of automation for the preparation of intravenous solutions for patients in acute care. No economic evaluations were identified.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2013, Issue 6), 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, randomized controlled trials, non-randomized studies, and economic studies. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2008 and June 21, 2013. 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, non-randomized studies, and economic evaluations.

Two non-randomized studies were identified regarding the safety of automation for the preparation of intravenous solutions for patients in acute care. No health technology assessments, systematic reviews, randomized controlled trials, or economic evaluations were identified. Additional references of potential interest are provided in the appendix.

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials
No literature identified.

Non-Randomized Studies


Economic Evaluations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Additional References


   See: Section 3.5 IV Compounding Systems/Automated Bag & Syringe Fillers/Automated Infusion Compounding Robotics. p. 24-31