TITLE: Front-end Lab Automation and Automated Urinalysis: Clinical Evidence and Cost Effectiveness

DATE: 14 December 2011

RESEARCH QUESTIONS

1. What is the clinical evidence regarding the time saved using front-end lab automation?
2. What is the clinical evidence regarding the time saved using automated urinalysis?
3. What is the cost effectiveness of front-end lab automation?
4. What is the cost effectiveness of automated urinalysis?

KEY MESSAGE

Limited evidence suggests that the use of front-end lab automation is a time saving measure; the evidence also suggests that automated urinalysis is a time saving alternative to manual methods of urinalysis. No conclusions can be made regarding the cost effectiveness of these devices.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2011, Issue 12), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No methodological filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2001 and December 8, 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, non-randomized studies, and economic evaluations.

One non-randomized study was identified regarding the time saved through front-end lab automation. Nine non-randomized studies were identified regarding the time saved through automated urinalysis. No relevant health technology assessment reports, systematic reviews and meta-analyses, randomized controlled trials, and 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

Front-End Lab Automation

Automated Urinalysis


Economic Evaluations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

User Evaluation: Automated Urinalysis