TITLE: Electronic Record Software for Wound Management: Clinical and Cost-Effectiveness

DATE: 11 October 2012

RESEARCH QUESTIONS:

1. What is the clinical effectiveness of electronic record software for wound care management in the acute care setting?

2. What is the clinical effectiveness of electronic record software for wound care management for maintaining outpatient continuity of care?

3. What is the cost-effectiveness of electronic record software for wound care management in the acute care setting?

KEY MESSAGE

Five non-randomized studies were identified regarding the clinical effectiveness of electronic record software for wound care management.

METHODS

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.

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 9), 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 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, 2007 and September 28, 2012. 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, economic evaluations, and evidence-based guidelines.

Five non-randomized studies were identified regarding the clinical effectiveness of electronic record software for wound care management. No relevant health technology assessment reports, systematic reviews, meta-analyses, randomized controlled trials, economic evaluations, or evidence-based guidelines were identified, no relevant information regarding maintaining outpatient continuity of care, and no information specific to the Pixalere™ system was identified. Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

Five relevant non-randomized studies that examined the use of information technologies to assess wounds and the progress of wound healing in acute care were identified.¹⁻⁵ The Ease of Use and Wound Management Effectiveness point-of-care electronic wound documentation system and the Wound Electronic Medical Records (WEMR) were both found to be effective at recognizing wound progress and changes in the status of wounds¹,⁴ The Ease of Use and Wound Management Effectiveness point-of-care electronic wound documentation system was not effective in determining the patient’s risk level.¹

Authors of one study concluded that computer algorithms may be appropriately applied to identify surgical site infections (SSIs) as long as bias and sources in electronic data have been addressed.⁵ However, some computerized decision support systems and electronic measures for SSI surveillance were not found to be effective in discerning SSIs.²,³ For instance, the electronic measures MedMined Nosocomial Infection Marker (NIM) and International Classification of Diseases, Ninth Revision (ICD-9) coding for SSIs were not as effective at observing SSIs when compared with the National Surgical Quality Improvement Program (NSQIP) database.³ Overestimates of SSI costs were also associated with the NIM and ICD-9.³ Authors of most included studies recommended further research to ascertain the validity and reliability of the documentation systems¹,²,⁵ or to validate across multiple centres.⁴
REFERENCES SUMMARIZED

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.

Guidelines and Recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies – Other Wound Management Systems


Additional References


