Title: X-ray Series for Foot and Ankle Injuries: Clinical Evidence, Cost-Effectiveness, and Guidelines

DATE: 06 November 2013

RESEARCH QUESTIONS

1. What is the clinical evidence for the accuracy of the Ottawa ankle rules to determine the need for X-rays to identify potential bone fracture?

2. What is the cost-effectiveness of using the Ottawa ankle rules to determine the need for X-rays to identify potential bone fracture?

3. What are the evidence-based guidelines for ankle or foot X-ray series for patients with suspected foot or ankle injury?

KEY MESSAGE

Two systematic reviews, one meta-analysis, six non-randomized studies, one economic evaluation, and four evidence-based guidelines were identified regarding the Ottawa ankle rules to determine the need for X-rays to identify potential bone fracture.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2013, Issue 10), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI (Health Devices Gold), Canadian and major international health technology agencies, as well as a focused Internet search. No methodological filters were applied to limit retrieval by publication type for questions 1 and 2. A guideline filter was used to limit retrieval to guidelines for question 3. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2013 and October 30, 2013. Internet links were provided, where available.

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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.

Two systematic reviews, one meta-analysis, six non-randomized studies, one economic evaluation, and four evidence-based guidelines were identified regarding the Ottawa ankle rules to determine the need for X-rays to identify potential bone fracture. No health technology assessments or randomized controlled trials were identified. Additional references of potential interest are provided in the appendix.

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials
No literature identified.

Non-Randomized Studies


Economic Evaluations


Guidelines and Recommendations


See: Table 1. Summary of Recommendations for Diagnostic and Other Testing for Ankle and Foot Disorders


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APPENDIX – FURTHER INFORMATION:

Randomized Controlled Trials – Mnemonic for Remembering the Ottawa Ankle Rules


Randomized and Non Randomized Studies – Practice Patterns or Change in Practice


Clinical Practice Guidelines – Methodology Uncertain


Review Articles


Additional References

