TITLE: Ultrasound versus Computed Tomography for Children with Suspected Appendicitis: Clinical Evidence, Cost-effectiveness, and Guidelines

DATE: 06 November 2013

RESEARCH QUESTIONS

1. What is the clinical evidence regarding diagnostic imaging with ultrasound compared with computed tomography for children with suspected appendicitis?

2. What is the cost-effectiveness of diagnostic imaging with ultrasound compared with computed tomography for children with suspected appendicitis?

3. What are the evidence-based guidelines for diagnostic imaging of children with suspected appendicitis?

KEY MESSAGE

Ten non-randomized studies and one economic evaluation were identified regarding diagnostic imaging with computed tomography compared with ultrasound for children with suspected appendicitis.

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, 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 for questions #1 and #2. A filter was added to limit the 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 Jan 1, 2008 and Oct 31, 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, economic evaluations, and evidence-based guidelines.

Ten non-randomized studies and one economic evaluation were identified regarding diagnostic imaging with computed tomography compared with ultrasound for children with suspected appendicitis. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or evidence-based guidelines 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


Guidelines and Recommendations

No literature identified.

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APPENDIX – FURTHER INFORMATION:

Economic Evaluations – adults


Review Articles

PubMed: PM22767172

PubMed: PM22450248

PubMed: PM22059151

PubMed: PM21467940

PubMed: PM19189097

PubMed: PM18053825

Additional References


PubMed: PM22582352