TITLE: X-Ray and Ultrasound Imaging via Telehealth: Clinical Effectiveness, Cost-Effectiveness, and Guidelines

DATE: 11 January 2011

RESEARCH QUESTIONS

1. What is the clinical effectiveness of conducting x-ray and ultrasound exams using telehealth technologies for patients in remote communities?

2. What is the cost-effectiveness of conducting x-ray and ultrasound exams using telehealth technologies for patients in remote communities?

3. What are the evidence-based guidelines for conducting x-ray and ultrasound exams using telehealth technologies?

KEY MESSAGE

The limited information identified regarding the effectiveness of conducting x-ray and ultrasound exams using telehealth technologies for patients in remote communities suggests telehealth technologies may be a feasible option for ultrasound exams.

METHODS

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 12, 2010), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI (Health Devices Gold), EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between January 1, 2005 and January 1, 2011. No filters were applied to limit the retrieval by study type. Internet links were provided, where available.

RESULTS

HTIS 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.

One randomized controlled trial and two non-randomized studies were identified regarding the clinical effectiveness of conducting ultrasound exams using telehealth technologies for patients in remote communities. No relevant health technology assessments, systematic reviews, meta-analyses, economic studies, or evidence-based guidelines were identified and no information was identified regarding the clinical effectiveness of conducting x-ray exams using telehealth technologies for patients in remote communities. Information regarding the use of ultrasound in non-traditional environments is included in the appendix.

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses
No literature identified.

Randomized controlled trials


Non-randomized studies


Economic evaluations
No literature identified.

Guidelines and recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Non-randomized studies – remote imaging in non-traditional settings


