Telemammography for Breast Cancer Diagnosis: Clinical Utility, Cost-Effectiveness, and Guidelines
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About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada’s health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

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Questions or requests for information about this report can be directed to requests@cadth.ca
Research Questions

1. What is the clinical utility of telemammography for the diagnosis of breast cancer?
2. What is the cost-effectiveness of telemammography for the diagnosis of breast cancer?
3. What are the evidence based guidelines regarding the use of telemammography for the diagnosis of breast cancer?

Key Findings

No relevant health technology assessments, systematic reviews, meta-analyses, randomized-controlled trials, non-randomized studies, and economic evaluations were identified regarding the use of telemammography for the diagnosis of breast cancer. Additionally, no evidence-based guidelines were identified regarding the use of telemammography.

Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine’s MeSH (Medical Subject Headings), and keywords. The main search concepts were diagnostic telemammography and breast cancer. 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, 2014 and August 15, 2019. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Q1-3: Patients of any age suspected of having breast cancer</th>
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</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Q1-3: Diagnostic telemammography (i.e., evaluation of images by an offsite radiologist)</td>
</tr>
<tr>
<td>Comparator</td>
<td>Q1-2: Diagnostic mammography (i.e., evaluation of images by an onsite radiologist)</td>
</tr>
<tr>
<td></td>
<td>Q3: Not applicable</td>
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<tr>
<td>Outcomes</td>
<td>Q1: Clinical utility (i.e., patient management, time to diagnose); safety (i.e., false positives or false negatives ratios, harms to the patient)</td>
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<td></td>
<td>Q2: Cost-effectiveness</td>
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<td></td>
<td>Q3: Evidence based guidelines</td>
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<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized-controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines</td>
</tr>
</tbody>
</table>
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.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized-controlled trials, non-randomized studies, and economic evaluations were identified regarding the use of telemammography for the diagnosis of breast cancer. Additionally, no evidence-based guidelines were identified regarding the use of telemammography.

References of potential interest are provided in the appendix.

Overall Summary of Findings

No relevant literature was found regarding the use of telemammography for the diagnosis of breast cancer, therefore no summary can be provided.

References Summarized

Health Technology Assessments
No relevant literature identified.

Systematic Reviews and Meta-analyses
No relevant literature identified.

Randomized Controlled Trials
No relevant literature identified.

Non-Randomized Studies
No relevant literature identified.

Economic Evaluations
No relevant literature identified.

Guidelines and Recommendations
No relevant literature identified.
Appendix — Further Information

Clinical Practice Guidelines – Non-Systematic Methodology

   See: VII. MOBILE AND TELEMAMMOGRAPHY SETTINGS

Clinical Practice Guidelines – Abstract Not Available


Non-Randomized Studies

Intervention Unclear


No Comparator


Alternative Setting


Review Articles

   Accessed 2019 Aug 26