RESEARCH QUESTIONS

1. What is the diagnostic accuracy of whole body bone scans for the diagnosis of peripheral and axial inflammatory arthritis?

2. What are the harms of whole body bone scans for the diagnosis of peripheral and axial inflammatory arthritis?

3. What are the evidence-based guidelines associated with whole body bone scans for the diagnosis of peripheral and axial inflammatory arthritis?

KEY FINDINGS

Three non-randomized studies were identified regarding whole body bone scans for the diagnosis of peripheral and axial inflammatory arthritis.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2015, Issue 4), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, 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, 2010 and April 1, 2015. Internet links were provided, where available.

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.
SELECTION CRITERIA

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

<table>
<thead>
<tr>
<th>Table 1: Selection Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
</tr>
<tr>
<td><strong>Intervention</strong></td>
</tr>
<tr>
<td><strong>Comparator</strong></td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
</tr>
<tr>
<td><strong>Study Designs</strong></td>
</tr>
</tbody>
</table>

MDP = methylene diphosphonate; Tc = technetium.

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, and evidence-based guidelines.

Three non-randomized studies were identified regarding whole body bone scans for the diagnosis of peripheral and axial inflammatory arthritis. 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.

OVERALL SUMMARY OF FINDINGS

Three non-randomized studies\(^1-^3\) were identified regarding whole body bone scans for the diagnosis of peripheral and axial inflammatory arthritis. All three studies provided assessments of diagnostic accuracy. A summary of their conclusions is provided in Table 2.

<table>
<thead>
<tr>
<th>Table 2: Summary of Non-Randomized Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author (Year)</strong></td>
</tr>
<tr>
<td>Gheita et al. (2014)(^1)</td>
</tr>
<tr>
<td>Kim et al. (2014)(^2)</td>
</tr>
<tr>
<td>Ozodogan et al. (2011)(^3)</td>
</tr>
</tbody>
</table>

\(^1\) Verbatim conclusions.

AS = ankylosing spondylitis; BS = bone scan; HIG = human polyclonal immunoglobulin; MDP = methylene diphosphonate; RA = rheumatoid arthritis; SpA = Axial seronegative spondyloarthritis.
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


Guidelines and Recommendations
No literature identified.

PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca
APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies – Alternate Population

PubMed: PM21607034

PubMed: PM20426913

Clinical Practice Guidelines – Unclear Methodology

See Bone scintigraphy, page 49

Review Articles

PubMed: PM24315051


PubMed: PM20733310