ACR Appropriateness Criteria® Chronic Ankle Pain

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Abstract

Chronic ankle pain is a common clinical problem whose cause is often elucidated by imaging. The ACR Appropriateness Criteria for chronic ankle pain define best practices of image ordering. Clinical scenarios are followed by the imaging choices and their appropriateness. The information is in ordered tables with an accompanying narrative explanation to guide physicians to order the right test.

The American College of Radiology Appropriateness Criteria are evidence-based guidelines for specific clinical conditions that are reviewed annually by a multidisciplinary expert panel. The guideline development and revision include an extensive analysis of current medical literature from peer reviewed journals and the application of well-established methodologies (RAND/UCLA Appropriateness Method and Grading of Recommendations Assessment, Development, and Evaluation or GRADE) to rate the appropriateness of imaging and treatment procedures for specific clinical scenarios. In those instances where evidence is lacking or equivocal, expert opinion may supplement the available evidence to recommend imaging or treatment.

Key Words: Ankle, Ankle joint, Appropriateness Criteria, Appropriate Use Criteria, AUC, Chronic ankle pain, Diagnostic imaging

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The American College of Radiology seeks and encourages collaboration with other organizations on the development of the ACR Appropriateness Criteria through society representation on expert panels. Participation by representatives from collaborating societies on the expert panel does not necessarily imply individual or society endorsement of the final document. Reprint requests to: publications@acr.org.

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ACR Appropriateness Criteria® Chronic Ankle Pain. Variants 1 to 7 and Tables 1 and 2.

Variant 1. Chronic ankle pain. Initial imaging.

Procedure	Appropriateness Category	Relative Radiation Level
X-ray ankle	Usually Appropriate	☢
Tc-99m bone scan ankle	Usually Not Appropriate	☢☢☢
US ankle	Usually Not Appropriate	O
CT ankle without IV contrast	Usually Not Appropriate	☢
CT ankle with IV contrast	Usually Not Appropriate	☢
CT ankle without and with IV contrast	Usually Not Appropriate	☢
MRI ankle without IV contrast	Usually Not Appropriate	O
MRI ankle without and with IV contrast	Usually Not Appropriate	O

IV= intravenous; US = ultrasound.

Variant 2. Chronic ankle pain. Multiple sites of degenerative joint disease in the hindfoot detected by ankle radiographs. Next study.

Procedure	Appropriateness Category	Relative Radiation Level
Image-guided anesthetic injection hindfoot/ankle	May Be Appropriate	Varies
MRI hindfoot/ankle without IV contrast	May Be Appropriate	O
CT hindfoot/ankle without IV contrast	May Be Appropriate	☢
CT hindfoot/ankle with IV contrast	Usually Not Appropriate	☢
CT hindfoot/ankle without and with IV contrast	Usually Not Appropriate	☢
MRI hindfoot/ankle without and with IV contrast	Usually Not Appropriate	O
Tc-99m bone scan hind foot/ankle	Usually Not Appropriate	☢☢☢
US hindfoot/ankle	Usually Not Appropriate	O
CT arthrography hindfoot/ankle	Usually Not Appropriate	☢
MR arthrography hindfoot/ankle	Usually Not Appropriate	O
X-ray arthrography hindfoot/ankle	Usually Not Appropriate	☢

IV = intravenous; US = ultrasound.

Variant 3. Chronic ankle pain. Ankle radiographs normal, suspected osteochondral lesion. Next study.

Procedure	Appropriateness Category	Relative Radiation Level
MRI ankle without IV contrast	Usually Appropriate	O
CT arthrography ankle	May Be Appropriate	☢
MR arthrography ankle	May Be Appropriate	O
Tc-99m bone scan with SPECT/CT ankle	May Be Appropriate (Disagreement)	☢☢☢
CT ankle without IV contrast	May Be Appropriate	☢
MRI ankle without and with IV contrast	Usually Not Appropriate	O
CT ankle with IV contrast	Usually Not Appropriate	☢
CT ankle without and with IV contrast	Usually Not Appropriate	☢

(continued)