## American College of Radiology
### ACR Appropriateness Criteria®

### Suspected Osteomyelitis, Septic Arthritis, or Soft Tissue Infection (Excluding Spine and Diabetic Foot)

**Variant 1:** Suspected osteomyelitis, septic arthritis, or soft-tissue infection (excluding spine and diabetic foot). First study.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
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<tbody>
<tr>
<td>X-ray area of interest</td>
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<td>Varies</td>
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**Variant 2:** Soft-tissue or juxta-articular swelling. Suspected soft-tissue infection. Additional imaging following radiographs.

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<th>Peds RRL</th>
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<th>Final Tabulations</th>
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## Variant 4: Soft-tissue or juxta-articular swelling with cellulitis and a skin lesion, injury, wound, ulcer, or blister. Suspected osteomyelitis. Additional imaging following radiographs.

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<th>Peds RRL</th>
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<td>CT area of interest with IV contrast</td>
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## Variant 5: Soft-tissue or juxta-articular swelling with a history of prior surgery. Suspected osteomyelitis or septic arthritis. Additional imaging following radiographs.

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<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
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Variant 6: Pain and swelling or cellulitis associated with site of previous nonarthroplasty hardware. Suspected osteomyelitis or septic arthritis. Additional imaging following radiographs.
<table>
<thead>
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<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
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<th>Rating</th>
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**Variant 7:** Draining sinus (not associated with a joint prosthesis). Suspected osteomyelitis. Additional imaging following radiographs.
CT area of interest with IV contrast | May be appropriate | Varies Varies | Varies Varies | 6 | n/a | 0 0 0 0 0 0 0 0 0  
CT area of interest without and with IV contrast | Usually not appropriate | Varies Varies | Varies Varies | 3 | n/a | 0 0 0 0 0 0 0 0 0  
US area of interest | Usually not appropriate | O 0 mSv | O 0 mSv [ped] | 1 | n/a | 0 0 0 0 0 0 0 0 0  

**Variant 8:** Clinical examination suggesting crepitus. Suspected soft-tissue gas. First study.

<table>
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<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
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</thead>
</table>
| X-ray area of interest | Usually appropriate | Varies Varies | Varies Varies | 9 | n/a | 0 0 0 0 0 0 0 0 0  
| CT area of interest without IV contrast | May be appropriate | Varies Varies | Varies Varies | 5 | n/a | 0 0 0 0 0 0 0 0 0  
| CT area of interest with IV contrast | May be appropriate | Varies Varies | Varies Varies | 5 | n/a | 0 0 0 0 0 0 0 0 0  
| CT area of interest without and with IV contrast | Usually not appropriate | Varies Varies | Varies Varies | 1 | n/a | 0 0 0 0 0 0 0 0 0  
| MRI area of interest without IV contrast | Usually not appropriate | O 0 mSv | O 0 mSv [ped] | 1 | n/a | 0 0 0 0 0 0 0 0 0  
| MRI area of interest without and with IV contrast | Usually not appropriate | O 0 mSv | O 0 mSv [ped] | 1 | n/a | 0 0 0 0 0 0 0 0 0  
| US area of interest | Usually not appropriate | O 0 mSv | O 0 mSv [ped] | 1 | n/a | 0 0 0 0 0 0 0 0 0  

**Variant 9:** Initial radiographs showing soft-tissue gas in absence of puncture wound.
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<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
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<td>O 0 mSv</td>
<td>O 0 mSv</td>
<td>[ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>
Please refer to the supporting documentation for a more complete discussion of the concepts and their definitions below.

Final Tabulations: A histogram of the number of panel members who rated the recommendation as noted in the column heading (i.e., 1, 2, 3, … etc.)

Disagree: The variation of the individual ratings from the median rating indicates panel disagreement on the final recommendation.

References: Lists the references associated with the recommendation.

SQ: Study Quality (1, 2, 3, 4, Good M or Inadequate M) of the references listed.

RRL: Information on the Relative Radiation Level (RRL) designations can be found here.