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

#### Chronic Elbow Pain

**Variant 1: Evaluation for chronic elbow pain. First test.**

<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>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiography elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>☢ ⩽0.1 mSv</td>
<td>9</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MR arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>0 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>0 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>US elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>0 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MRI elbow without and with IV</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>0 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>contrast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT elbow without and with IV</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>contrast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Procedure</td>
<td>Appropriateness Category</td>
<td>SOE</td>
<td>Adults RRL</td>
<td>Peds RRL</td>
<td>Rating</td>
<td>Median</td>
<td>Final Tabulations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------------------------</td>
<td>--------------</td>
<td>------------</td>
<td>----------</td>
<td>--------</td>
<td>--------</td>
<td>-------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MR arthrography elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>3</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Variant 2:** Mechanical symptoms (locking, clicking, limited motion); suspect intra-articular osteocartilaginous body or synovial abnormality; radiographs nondiagnostic.

**Variant 3:** Suspect occult fracture or other bone abnormality; radiographs nondiagnostic.
<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>
</tr>
</thead>
<tbody>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>5</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>MR arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>US elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>May be appropriate</td>
<td>☢☢☢ 1-10 mSv</td>
<td>4</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>☢☢ 0.1-1mSv</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Variant 4:** Assess stability of osteochondral injury; radiographs nondiagnostic.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>MR arthrography elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>
### Variant 5:  Palpable soft-tissue mass; radiographs nondiagnostic.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>US elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>7</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>7</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>
### Variant 6: Suspect chronic epicondylitis, refractory to empirical treatment; radiographs nondiagnostic.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>MR arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>3</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>3</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>US elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MR arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>
**Variant 7:** Suspect collateral ligament tear; radiographs nondiagnostic.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>MR arthrography elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>US elbow</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>6</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Radiography elbow stress views</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1 mSv</td>
<td></td>
<td>6</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>5</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td>☢☢ 1-10 mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

**Variant 8:** Suspect biceps tendon tear; radiographs nondiagnostic.
<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>
</tr>
</thead>
<tbody>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>US elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MR arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td>☢☢☢ 1-10 mSv</td>
<td>1</td>
<td>n/a</td>
<td></td>
<td></td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

Variant 9:  Suspect nerve abnormality; radiographs nondiagnostic.
<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>
</tr>
</thead>
<tbody>
<tr>
<td>US elbow</td>
<td>Usually appropriate</td>
<td></td>
<td>O 0 mSv [ped]</td>
<td>O 0 mSv [ped]</td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>Expert Consensus</td>
<td>0.1-1 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MR arthrography elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td>Expert Consensus</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td>Expert Consensus</td>
<td>1-10 mSv</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>Expert Consensus</td>
<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>Expert Consensus</td>
<td>0.1-1 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>Expert Consensus</td>
<td>0.1-1 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

**Variant 10: Elbow stiffness; suspect heterotopic ossification/osteophytosis by radiography. Next test.**
<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>
</tr>
</thead>
<tbody>
<tr>
<td>US elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>May be appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td></td>
<td>5</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

**Variant 11: Suspect inflammatory arthritis or bursitis; radiographs obtained.**

<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>
</tr>
</thead>
<tbody>
<tr>
<td>MRI elbow without and with IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI elbow without IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>US elbow</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>7</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>3-phase bone scan elbow</td>
<td>Usually not appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td></td>
<td>3</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT arthrography elbow</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT elbow with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>☢☢ 0.1-1mSv</td>
<td></td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Procedure</td>
<td>Applicability</td>
<td>Radiation Dose</td>
<td>Expert Consensus</td>
<td>Score</td>
<td>Score Range</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------------------------------</td>
<td>----------------</td>
<td>------------------</td>
<td>-------</td>
<td>-------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>CT elbow without IV contrast</td>
<td>Usually not appropriate</td>
<td>💫 0.1-1mSv</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MR arthrography elbow</td>
<td>Usually not appropriate</td>
<td>O 0 mSv</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix Key
A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

**Appropriateness Category:** The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

**SOE:** Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- **References:** The citation number and PMID for the reference(s) associated with the recommendation.
- **Study Quality:** The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

**RRL:** Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

**Rating:** The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Median:** The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Final tabulations:** A histogram showing the number of panel members who rated the procedure as noted in the column heading (ie, 1, 2, 3, etc.).

Additional supporting documents about the AC methodology and processes can be found at [www.acr.org/ac](http://www.acr.org/ac).