American College of Radiology  
ACR Appropriateness Criteria®  

Imaging of Possible Tuberculosis

**Variant 1:**  Suspect active tuberculosis.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Radiography chest</td>
<td>Usually appropriate</td>
<td></td>
<td>☢ &lt;0.1 mSv</td>
<td>☢ &lt;0.03 mSv</td>
<td>9</td>
<td>n/a</td>
</tr>
<tr>
<td>CT chest without IV contrast</td>
<td>Usually appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢ 3-10 mSv</td>
<td>7</td>
<td>n/a</td>
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<tr>
<td>CT chest with IV contrast</td>
<td>May be appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢ 3-10 mSv</td>
<td>6</td>
<td>n/a</td>
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<tr>
<td>MRI chest without IV contrast</td>
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<td></td>
<td>☢ 0 mSv [ped]</td>
<td>☢ 0 mSv [ped]</td>
<td>3</td>
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<tr>
<td>MRI chest without and with IV</td>
<td>Usually not appropriate</td>
<td></td>
<td>☢ 0 mSv [ped]</td>
<td>☢ 0 mSv [ped]</td>
<td>3</td>
<td>n/a</td>
</tr>
<tr>
<td>CT chest without and with IV</td>
<td>Usually not appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢ 3-10 mSv</td>
<td>3</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Variant 2:**  Newly positive PPD or IGRA OR positive PPD or IGRA with unknown prior status. No clinical symptoms.

<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>
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</thead>
<tbody>
<tr>
<td>Radiography chest</td>
<td>Usually</td>
<td></td>
<td>☢ &lt;0.1 mSv</td>
<td>☢ &lt;0.03 mSv</td>
<td>9</td>
<td>n/a</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>
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</tr>
<tr>
<td>CT chest with IV contrast</td>
<td>appropriate</td>
<td></td>
<td>mSv</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT chest without IV contrast</td>
<td>May be appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
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<td>n/a</td>
</tr>
<tr>
<td>MRI chest without IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv</td>
<td>2</td>
<td>n/a</td>
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<tr>
<td>MRI chest without and with IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
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<tr>
<td>CT chest without and with IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>1</td>
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</tbody>
</table>

Variant 3: PPD not available. Placement in group home or skilled nursing facility. No clinical symptoms.

<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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</thead>
<tbody>
<tr>
<td>Radiography chest</td>
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<td></td>
<td>☢ &lt;0.1 mSv</td>
<td>☢ &lt;0.03 mSv [ped]</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<tr>
<td>MRI chest without IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
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<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<tr>
<td>CT chest without IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
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<tr>
<td>CT chest with IV contrast</td>
<td>Usually not appropriate</td>
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<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
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<tr>
<td>Examination</td>
<td>Appropriate for</td>
<td>Dose [mSv]</td>
<td>Dose [mSv] [ped]</td>
<td>Risk Level</td>
<td>Risk Value</td>
<td>Omission Rate</td>
<td>Sensitivity</td>
</tr>
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</tr>
<tr>
<td>MRI chest without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>0 mSv</td>
<td>0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
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<tr>
<td>CT chest without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>1</td>
<td>n/a</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).