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

**Suspected Small-Bowel Obstruction**

**Variant 1:** Suspected small-bowel obstruction. Acute presentation. Initial imaging.

<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>CT abdomen and pelvis with IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
<td>9</td>
<td>9</td>
<td>1 0 0 0 0 0 0 4 12</td>
</tr>
<tr>
<td>CT abdomen and pelvis without IV contrast</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
<td>6</td>
<td>6</td>
<td>1 0 0 2 4 5 5 0 0</td>
</tr>
<tr>
<td>MRI abdomen and pelvis without and with IV contrast</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>0 mSv</td>
<td>0 mSv [ped]</td>
<td>5</td>
<td>5</td>
<td>0 0 1 7 7 2 0 0 0</td>
</tr>
<tr>
<td>Radiography abdomen and pelvis</td>
<td>May be appropriate (Disagreement)</td>
<td>Expert Opinion</td>
<td>1-10 mSv</td>
<td>0.3-3 mSv [ped]</td>
<td>5</td>
<td>5</td>
<td>0 1 1 1 9 2 2 0 1</td>
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<tr>
<td>Fluoroscopy small bowel follow-through</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
<td>4</td>
<td>4</td>
<td>2 0 2 6 5 1 1 0 0</td>
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<tr>
<td>MRI abdomen and pelvis without IV contrast</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>0 mSv</td>
<td>0 mSv [ped]</td>
<td>4</td>
<td>4</td>
<td>0 0 2 9 4 2 0 0 0</td>
</tr>
<tr>
<td>CT abdomen and pelvis without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>10-30 mSv</td>
<td>10-30 mSv [ped]</td>
<td>3</td>
<td>3</td>
<td>1 1 9 5 0 0 0 1 0</td>
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<tr>
<td>CT enteroclysis</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>10-30 mSv</td>
<td>3-10 mSv [ped]</td>
<td>3</td>
<td>3</td>
<td>5 3 8 0 1 0 0 0 0</td>
</tr>
<tr>
<td>Procedure</td>
<td>Appropriateness Category</td>
<td>SOE</td>
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<td>Final Tabulations</td>
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<td>CT abdomen and pelvis with IV contrast</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>7</td>
<td>7</td>
<td>1 0 0 0 1 3 5 5 3</td>
</tr>
<tr>
<td>CT enterography</td>
<td>Usually appropriate</td>
<td>Expert Consensus</td>
<td>☢☢☢☢ 10-30 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>7</td>
<td>7</td>
<td>1 0 0 0 3 1 7 2 3</td>
</tr>
<tr>
<td>CT enteroclysis</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>☢☢☢ 10-30 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>6</td>
<td>6</td>
<td>0 0 0 1 4 11 1 0 0</td>
</tr>
<tr>
<td>MR enterography</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>6</td>
<td>0 0 0 1 5 9 1 1 0</td>
</tr>
<tr>
<td>CT abdomen and pelvis without IV contrast</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>5</td>
<td>5</td>
<td>0 0 1 5 5 5 1 0 0</td>
</tr>
<tr>
<td>Fluoroscopy small bowel enteroclysis</td>
<td>May be appropriate</td>
<td>Expert Consensus</td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>5</td>
<td>5</td>
<td>0 0 4 3 7 3 0 0 0</td>
</tr>
</tbody>
</table>

**Variant 2:** Suspected intermittent or low-grade small-bowel obstruction. Indolent presentation.
| Procedure                                      | Appropriateness | Expert Consensus | Radiation Dose | Radiation Dose [ped] | Score 1 | Score 2 | Score 3 | Score 4 | Score 5 | Score 6 | Score 7 | Score 8 | Score 9 | Score 10 |
|-----------------------------------------------|-----------------|------------------|----------------|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Fluoroscopy small bowel follow-through        | May be          | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped]| 5       | 5       | 0       | 0       | 3       | 1       | 11      | 2       | 0       | 0       |
| MRI abdomen and pelvis without and with IV contrast | May be          | Expert Consensus | O 0 mSv       | O 0 mSv [ped]     | 5       | 5       | 0       | 0       | 2       | 1       | 12      | 1       | 1       | 0       |
| MRI abdomen and pelvis without IV contrast    | May be          | Expert Consensus | O 0 mSv       | O 0 mSv [ped]     | 4       | 4       | 0       | 0       | 1       | 11      | 3       | 1       | 1       | 0       | 0       |
| MR enteroclysis                               | May be          | Expert Consensus | O 0 mSv       | O 0 mSv [ped]     | 4       | 4       | 0       | 0       | 1       | 11      | 3       | 5       | 0       | 0       | 0       |
| CT abdomen and pelvis without and with IV contrast | Usually not     | Expert Consensus | ☢☢☢ 10-30 mSv | ☢☢☢☢ 10-30 mSv [ped]| 3       | 3       | 2       | 5       | 6       | 1       | 1       | 0       | 1       | 0       | 1       |
| US abdomen and pelvis                         | Usually not     | Expert Consensus | O 0 mSv       | O 0 mSv [ped]     | 3       | 3       | 4       | 2       | 6       | 5       | 0       | 0       | 0       | 0       | 0       |
| Radiography abdomen and pelvis                | Usually not     | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢ 0.3-3 mSv [ped]| 3       | 3       | 1       | 4       | 4       | 4       | 2       | 1       | 0       | 0       | 1       |
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).