Prostate Cancer–Pretreatment Detection, Surveillance, and Staging

Variant 1: Clinically suspected prostate cancer, no prior biopsy (biopsy naïve). Detection.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL [ped]</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUS guided biopsy prostate</td>
<td>Usually appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv</td>
<td>9</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI-targeted biopsy prostate</td>
<td>Usually appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>7</td>
<td>n/a</td>
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</tr>
<tr>
<td>MRI pelvis without and with IV contrast</td>
<td>Usually appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>7</td>
<td>n/a</td>
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<tr>
<td>MRI pelvis without IV contrast</td>
<td>May be appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
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<tr>
<td>CT abdomen and pelvis with IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
<td>3</td>
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</tr>
<tr>
<td>TRUS prostate</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 abdomen and pelvis 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>
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<td>10-30 mSv</td>
<td>10-30 mSv [ped]</td>
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<tr>
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<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
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</table>
## Variant 2: Clinically suspected prostate cancer, prior negative TRUS-guided biopsy. Detection.

<table>
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<tr>
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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>
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<tbody>
<tr>
<td>MRI-targeted biopsy prostate</td>
<td>Usually appropriate</td>
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<td>O 0 mSv</td>
<td>O 0 mSv</td>
<td>8</td>
<td>n/a</td>
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<tr>
<td>MRI pelvis without and with IV contrast</td>
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<td>O 0 mSv</td>
<td>O 0 mSv</td>
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</tr>
<tr>
<td>TRUS guided biopsy prostate</td>
<td>Usually appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv</td>
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<tr>
<td>MRI pelvis without IV contrast</td>
<td>May be appropriate</td>
<td></td>
<td>O 0 mSv</td>
<td>O 0 mSv</td>
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</tr>
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<td>TRUS prostate</td>
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<td>O 0 mSv</td>
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<tr>
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<td></td>
<td>★★★ 1-10 mSv</td>
<td>★★★★ 3-10 mSv</td>
<td>2</td>
<td>n/a</td>
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<tr>
<td>CT abdomen and pelvis with IV contrast</td>
<td>Usually not appropriate</td>
<td></td>
<td>★★★★ 10-30 mSv</td>
<td>★★★★★ 10-30 mSv</td>
<td>2</td>
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<tr>
<td>CT abdomen and pelvis with IV contrast</td>
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<td></td>
<td>★★★ 1-10 mSv</td>
<td>★★★★ 3-10 mSv</td>
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</tr>
<tr>
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<td></td>
<td>★★★ 1-10 mSv</td>
<td>★★★★ 3-10 mSv</td>
<td>1</td>
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| Final Tabulations |
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## Variant 3: Clinically established low risk prostate cancer. Active surveillance.
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<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
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<tbody>
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<td>O 0 mSv [ped]</td>
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<td></td>
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<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
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<tr>
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<tr>
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<td>☢☢☢ 10-30 mSv</td>
<td>☢☢☢☢ummer 10 mSv [ped]</td>
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<tr>
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<td></td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢☢ummer 10 mSv [ped]</td>
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</tr>
<tr>
<td>Tc-99m bone scan whole body</td>
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<td>☢☢☢ 1-10 mSv</td>
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</table>

Variant 4: Clinically established intermediate risk prostate cancer. Staging and/or surveillance.

<table>
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<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
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<th>Final Tabulations</th>
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<tbody>
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<td>O 0 mSv [ped]</td>
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</table>
### Variant 5: Clinically established high risk prostate cancer. Staging.

<table>
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<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
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<th>Final Tabulations</th>
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<tbody>
<tr>
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<td>3-10 mSv [ped]</td>
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<td>CT abdomen and pelvis with IV contrast</td>
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<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
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<td>TRUS prostate</td>
<td>Usually not appropriate</td>
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<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
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<td>☢☢☢☢ 3-10 mSv [ped]</td>
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<tr>
<td>MRI pelvis without IV contrast</td>
<td>May be appropriate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
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<tr>
<td>MRI-targeted biopsy prostate</td>
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<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>3</td>
<td>n/a</td>
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<tr>
<td>CT abdomen and pelvis without and with IV contrast</td>
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<tr>
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<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
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<td>TRUS guided biopsy prostate</td>
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<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
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</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).