**Hematuria**

**Variant 1:**

Patients with vigorous exercise, presence of infection or viral illness, or present or recent menstruation.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>RRL</th>
<th>Panel Rating</th>
<th>Group Median Rating</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>US kidneys and bladder retroperitoneal</td>
<td>Usually not appropriate</td>
<td>O 0 mSv 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>
</tr>
<tr>
<td>CT abdomen and pelvis without IV contrast</td>
<td>Usually not appropriate</td>
<td>☢☢☢☢ 10-30 mSv ☢☢☢☢ 3-10 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>CT abdomen and pelvis without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>☢☢☢☢ 10-30 mSv ☢☢☢☢ 10-30 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
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<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>MRI abdomen and pelvis without IV contrast</td>
<td>Usually not appropriate</td>
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<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>X-ray retrograde pyelography</td>
<td>Usually not appropriate</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>
</tr>
<tr>
<td>X-ray intravenous urography</td>
<td>Usually not appropriate</td>
<td>☢☢☢ 1-10 mSv ☢☢☢ 0.3-3 mSv [ped]</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
</tbody>
</table>
### References

<table>
<thead>
<tr>
<th>Study</th>
<th>Quality</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray abdomen and pelvis (KUB)</td>
<td>Usually not appropriate</td>
<td>☢☢ 0.1-1mSv</td>
</tr>
<tr>
<td>Arteriography kidney</td>
<td>Usually not appropriate</td>
<td>☢☢☢ 1-10 mSv</td>
</tr>
</tbody>
</table>

#### Variant 2:

Patients with disease of renal parenchyma as the cause of hematuria.

<table>
<thead>
<tr>
<th>Study</th>
<th>Quality</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT abdomen and pelvis without IV contrast</td>
<td>Usually not appropriate</td>
<td>☢☢☢☢ 10-30 mSv ☢☢☢☢ 3-10 mSv [ped]</td>
</tr>
<tr>
<td>CT abdomen and pelvis without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>☢☢☢☢ 10-30 mSv ☢☢☢☢ 10-30 mSv [ped]</td>
</tr>
<tr>
<td>CT abdomen and pelvis with IV contrast</td>
<td>Usually not appropriate</td>
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</tr>
<tr>
<td>MRI abdomen and pelvis without IV contrast</td>
<td>Usually not appropriate</td>
<td>O 0 mSv O 0 mSv [ped]</td>
</tr>
<tr>
<td>MRI abdomen and pelvis without and with IV contrast</td>
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</tr>
<tr>
<td>X-ray abdomen and pelvis (KUB)</td>
<td>Usually not appropriate</td>
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</tr>
<tr>
<td>Arteriography kidney</td>
<td>Usually not appropriate</td>
<td>☢☢☢ 1-10 mSv</td>
</tr>
</tbody>
</table>
### References

#### Study Quality

**US kidneys and bladder retroperitoneal**

- **Usually appropriate**
- O 0 mSv O 0 mSv [ped]
- 8
- n/a
- 0 0 0 0 0 0 0 0 0

**X-ray retrograde pyelography**

- **Usually not appropriate**
- ☢☢☢ 1-10 mSv
- 2
- n/a
- 0 0 0 0 0 0 0 0 0

**X-ray intravenous urography**

- **Usually not appropriate**
- ☢☢☢ 1-10 mSv ☢☢☢ 0.3-3 mSv [ped]
- 1
- n/a
- 0 0 0 0 0 0 0 0 0

### Variant 3:

**All patients except those described in variant 1 or 2.**

**US kidneys and bladder retroperitoneal**

- **May be appropriate**
- O 0 mSv O 0 mSv [ped]
- 5
- n/a
- 0 0 0 0 0 0 0 0 0

**CT abdomen and pelvis without IV contrast**

- **May be appropriate**
- ☢☢☢ 10-30 mSv ☢☢☢ 3-10 mSv [ped]
- 6
- n/a
- 0 0 0 0 0 0 0 0 0

**CT abdomen and pelvis with IV contrast**

- **Usually appropriate**
- ☢☢☢ 10-30 mSv ☢☢☢ 10-30 mSv [ped]
- 9
- n/a
- 0 0 0 0 0 0 0 0 0

**MRI abdomen and pelvis without IV contrast**

- **May be appropriate**
- O 0 mSv O 0 mSv [ped]
- 4
- n/a
- 0 0 0 0 0 0 0 0 0

**MRI abdomen and pelvis with IV contrast**

- **May be appropriate**
- O 0 mSv O 0 mSv [ped]
- 5
- n/a
- 0 0 0 0 0 0 0 0 0
| Procedure                               | Appropriateness          | Dose (mSv)                     | References | Qual. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------------------------------------|--------------------------|--------------------------------|------------|-------|---|---|---|---|---|---|---|---|---|----|
| X-ray retrograde pyelography            | May be appropriate       | ☢☢☢ 1-10 mSv                  | 6          | n/a   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
| X-ray intravenous urography             | Usually not appropriate  | ☢☢☢ 1-10 mSv ☢☢ 0.3-3 mSv [ped] | 1          | n/a   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
| X-ray abdomen and pelvis (KUB)          | Usually not appropriate  | ☢☢ 0.1-1mSv                   | 2          | n/a   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
| Arteriography kidney                    | Usually not appropriate  | ☢☢☢ 1-10 mSv                  | 2          | n/a   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
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 (ie. 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.