American College of Radiology  
ACR Appropriateness Criteria®

Hematuria-Child

Variant 1:  Child. Isolated microscopic hematuria (nonpainful, nontraumatic) without proteinuria. Initial imaging.

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References          Study Quality
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21 (2958464)         3

Fluoroscopy voiding cystourethrography    Usually not appropriate       Expert Consensus       ☢☢ 0.1-1mSv    ☢☢ 0.03-0.3 mSv [ped]         1      1      9      2      2      1      0      0     0     0  

Arteriography kidneys          Usually not appropriate       Expert Consensus       TBD TBD       ☢☢☢☢ 3-10 mSv [ped]         1      1      13     1      0      0      0     0     0     0  

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Variant 2: Child. Isolated microscopic hematuria (nonpainful, nontraumatic) with proteinuria. Initial imaging.

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CT abdomen and pelvis with IV contrast

CT abdomen and pelvis without IV contrast

CT abdomen and pelvis without and with IV contrast

Radiography intravenous urography

Arteriography kidneys

MRI abdomen and pelvis without IV contrast

MRI abdomen and pelvis without and with IV contrast

Radiography abdomen and pelvis (KUB)

Voiding urosonography

Variant 3: Child. Isolated macroscopic hematuria (nonpainful, nontraumatic). Initial imaging.

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**MRI abdomen and pelvis without and with IV contrast**

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**Radiography abdomen and pelvis (KUB)**

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**Radiography intravenous urography**

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Radiography intravenous urography
- Usually not appropriate
- Expert Consensus: Strong
- ☢☢☢ 1-10 mSv
- ☢☢☢ 0.3-3 mSv [ped]
- Study Quality: 2 2 0 0 0 0 0 0 0 0

Fluoroscopy voiding cystourethrography
- Usually not appropriate
- Expert Consensus: Moderate
- ☢☢ 0.1-1 mSv
- ☢☢ 0.03-0.3 mSv [ped]
- Study Quality: 2 2 0 0 0 0 0 0 0 0

Arteriography kidneys
- Usually not appropriate
- Expert Consensus: TBD TBD
- ☢☢☢☢ 3-10 mSv [ped]
- Study Quality: 2 2 0 0 0 0 0 0 0 0

MRI abdomen and pelvis without IV contrast
- Usually not appropriate
- Expert Consensus: O 0 mSv
- O 0 mSv [ped]
- Study Quality: 2 2 0 0 0 0 0 0 0 0

Voiding urosonography
- Usually not appropriate
- Expert Consensus: O 0 mSv
- O 0 mSv [ped]
- Study Quality: 2 2 4 7 3 0 0 0 0 0

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**Variant 6:** Child. Traumatic hematuria (microscopic). Initial imaging.

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**Radiography intravenous urography**

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**Fluoroscopy voiding cystourethrography**

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**Arteriography kidneys**

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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).