

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

**Newly Diagnosed Palpable Scrotal Abnormality**

**Variant 1: Newly diagnosed palpable scrotal abnormality. History of trauma or infection. Initial imaging.**

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US duplex Doppler scrotum	Usually appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	9	9	1	0	0	0	0	0	1	2	10
		References		Study Quality											
		1 (24784335)		4											
		36 (28865524)		4											
		34 (27181687)		3											
		33 (21165453)		4											
		32 (21404205)		3											
		35 (21095426)		4											
US scrotum	Usually appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	9	9	0	1	0	0	0	0	2	3	8
		References		Study Quality											
		36 (28865524)		4											
MRI pelvis (scrotum) without IV contrast	May be appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	4	4	2	1	4	5	0	1	0	0	1
MRI pelvis (scrotum) without and with IV contrast	May be appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	4	4	3	0	4	4	1	1	0	1	0
CT pelvis with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	2	2	5	5	1	2	1	0	0	0	0

CT pelvis without IV contrast	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	2	2	5	4	3	1	0	0	0	0	1
CT pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☹☹☹☹ 10-30 mSv	☹☹☹☹ 3-10 mSv [ped]	2	2	5	3	3	1	1	1	0	0	0
CT abdomen and pelvis with IV contrast	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	1	1	9	3	1	0	1	0	0	0	0
CT abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	1	1	10	2	1	0	0	0	0	0	1
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☹☹☹☹ 10-30 mSv	☹☹☹☹☹☹ 10-30 mSv [ped]	1	1	10	2	1	0	0	0	1	0	0
MRI abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	8	3	1	0	1	0	0	0	1
MRI abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	8	2	2	0	1	0	0	0	1
Nuclear medicine scan scrotum	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	1	1	10	1	2	1	0	0	0	0	0

**Variant 2: Newly diagnosed palpable scrotal abnormality. No history of trauma or infection. Initial imaging.**

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations									
							1	2	3	4	5	6	7	8	9	
US duplex Doppler scrotum	Usually appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	9	9	1	0	0	0	0	0	0	0	4	9

References	Study Quality
1 (24784335)	4
32 (21404205)	3
34 (27181687)	3

US scrotum	Usually appropriate	Limited	0 0 mSv	0 0 mSv [ped]	9	9	0	1	0	0	0	0	2	2	9
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References	Study Quality
21 (22674702)	4
51 (22025740)	4
50 (22498445)	4
49 (23143112)	4
48 (24217678)	4
47 (29460046)	4
46 (19802889)	4
45 (26401856)	3
44 (25444105)	4
43 (24078656)	4
42 (22677786)	3
41 (31277727)	4

MRI pelvis (scrotum) without IV contrast	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	4	4	4	1	0	7	1	1	0	0	0
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References	Study Quality
8 (30113631)	4
40 (23436847)	3
39 (28698942)	4
38 (20173145)	2
37 (31585196)	4

MRI pelvis (scrotum) without and with IV contrast	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	4	4	2	1	3	3	3	2	0	0	0
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References	Study Quality
8 (30113631)	4
40 (23436847)	3
39 (28698942)	4
38 (20173145)	2
37 (31585196)	4

CT pelvis with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	2	2	6	4	2	1	0	1	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼☼ 10-30 mSv	☼☼☼☼ 3-10 mSv [ped]	2	2	7	3	2	1	0	0	1	0	0
CT abdomen and pelvis with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	13	2	0	0	0	0	0	0	0
CT abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	11	1	1	0	0	0	0	0	1
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 10-30 mSv [ped]	1	1	11	1	0	1	0	0	0	0	1
CT pelvis without IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	8	5	0	0	0	0	0	1	0
MRI abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	10	1	0	1	1	0	0	0	1
MRI abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	14	1	0	0	0	0	0	0	0
Nuclear medicine scan scrotum	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	13	0	0	0	0	0	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).