## American College of Radiology ACR Appropriateness Criteria®

## Lower Urinary Tract Symptoms: Suspicion of Benign Prostatic Hyperplasia

Variant 1: Lower urinary tract symptoms. Suspicion of benign prostatic hyperplasia. Initial imaging.

	Appropriate	eness	GOD.	4.1.14 DD		D I DDI	D (1	3.7.11			F	inal '	Tabu	latior	ıs		
Procedure	Categor	ry	SOE	Adults RR	L	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
US pelvis (bladder and prostate) transabdominal	May be appropria	e ate	Strong	O 0 mSv	,	O 0 mSv [ped]	6	6	0	0	0	0	0	0	0	0	0
		References				Study	Quality										
		20 (25727301)															
		25 (26607685)															
		24 (25797818)															
		29 (24770808)															
		19 (21091793)				4											
			28 (19057217)														
			30 (12217433)														
			2 (27476123)														
			1 (25613154)		4												
			21 (15780362)														
			23 (14634410)		2												
			22 (12670568)		1												
			15 (12010318)		4												
		26 (23789044)															
		27 (27545297)				3											
US kidneys retroperitoneal	May be appropria		Limited	O 0 mSv	,	O 0 mSv [ped]	5	5	0	0	0	0	0	0	0	0	0

		References			Study											
		31 (10664665)														
		2 (27476123)				4										
			1 (25613154)			4				1						
MRI pelvis without IV contrast	Usually r appropria	not ate	Strong	O 0 mSv	O 0 mSv [ped]	3	3	3	3	3	2	1	2	0	0	0
			References		Study	Quality										
			35 (22973825)			3										
			2 (27476123)													
		34 (27015442)														
			37 (26295642)													
		33 (28473080)														
		36 (27487205)														
			38 (29552975)													
Radiography intravenous urography	Usually r appropria	not ate	Limited	<b>≎≎≎</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	2	2	0	0	0	0	0	0	0	0	0
			References		Study											
			9 (18536872)													
			11 (2446348)													
			10 (10648665)													
			12 (20858787)													
Fluoroscopy voiding cystourethrography	Usually r appropria		Expert Consensus	�� 0.1-1mSv		2	2	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	Usually r appropria	not ate	Strong	O 0 mSv	O 0 mSv [ped]	2	2	3	6	5	0	0	1	0	0	0
		References			Study											
		35 (22973825)														
		2 (27476123)														
		34 (27015442)														
		37 (26295642)														

		33 (28473080)													
		36 (27487205)													
		38 (29552975)													
TRUS prostate	Usually not appropriate	Strong	O 0 mSv	O 0 mSv [ped]	2	2	0	0	0	0	0	0	0	0	0
		References		Study	Quality										
		16 (25463884)			3										
		14 (19350408)			3										
		17 (26861745)			3										
		6 (23541338)													
		13 (22166330)													
		18 (21475953)													
		15 (12010318)													
Radiography abdomen	Usually not appropriate	Limited	�� 0.1-1mSv	<b>⊕⊕</b> 0.03- 0.3 mSv [ped]	2	2	0	0	0	0	0	0	0	0	0
		References		Study											
		8 (9488069)													
CT abdomen and pelvis with IV contrast	Usually not appropriate	Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	0	0	0	0	0	0	0	0	0
		References		Study											
		32 (25433478)													
		31 (10664665)													
		2 (27476123)		_			1								
CT abdomen and pelvis without IV contrast	Usually not appropriate	Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	0	0	0	0	0	0	0	0	0
		References		Study Quality											
		32 (25433478)		2											
		31 (10664665)		4											
		2 (27476123)													

CT abdomen and pelvis without and with IV contrast	Usuall approp		Limited	���� 10- mSv	30 10 m	<b>9                                    </b>	1	1	0	0	0	0	0	0	0	0	0
		References															
		32 (25433478)															
			31 (10664665)			4											
			2 (27476123)			4											
Fluoroscopy retrograde urethrography	Usuall approp		Expert Consensus	��� 1-10 mSv	<sup>7</sup>   3 n	0.3- nSv ed]	1	1	0	0	0	0	0	0	0	0	0

## **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.