American College of Radiology ACR Appropriateness Criteria®

Preoperative and Postoperative Imaging for Bariatric Procedures

Variant 1: Adult. Bariatric procedure. Routine preprocedure planning.

D 1	Appropri	ateness	COL	414 55		DDI.	.	3.6.11			F	inal '	Tabu	latio	ns		
Procedure	Categ	gory	SOE	Adults RR	L Peds	KKL	Rating	Median	1	2	3	4	5	6	7	8	9
Fluoroscopy upper GI series	May approp		Limited	≎≎≎ 1-10 mSv)	Sv	6	6	0	0	0	1	4	5	2	0	0
			References			Study	Quality										
			4 (31682518)				4										
			11 (29519608)				4										
			12 (15072649)				4										
Fluoroscopy single contrast esophagram	May approp		Limited	��� 1-10 mSv)	Sv	5	5	0	0	0	2	7	2	1	0	0
			References			Study	Quality										
			4 (31682518)				4										
			11 (29519608)				4										
	1		12 (15072649)				4		_								
Fluoroscopy biphasic esophagram	May approp		Limited	��� 1-10 mSv)		5	5	0	0	0	1	8	2	1	0	0
			References			Study	Quality										
			4 (31682518)				4										
			11 (29519608)				4										
			12 (15072649)				4										

CT abdomen and pelvis with IV contrast	Usuall approp		Limited	��� 1-10 mSv	0	3	3	2	1	5	0	4	0	1	0	0
			References		Study	y Quality										
			10 (32917578)			4										
US abdomen	Usuall approp		Limited	O 0 mSv	O 0 mSv [ped]	3	3	3	2	2	3	2	1	0	0	0
			References		Study	y Quality										
			11 (29519608)	11 (29519608)		4										
			13 (29627946)			4										
			14 (24101090)			4		_								
CT abdomen and pelvis without IV contrast	Usuall approp	•	Expert Consensus	Expert		2	2	3	5	3	0	2	0	0	0	0
CT abdomen and pelvis without and with IV contrast	Usuall approp		Expert Consensus	���� 10- mSv	30	2	2	6	4	3	0	0	0	0	0	0
Fluoroscopy small bowel follow-through	Usuall approp		Expert Consensus	��� 1-10 mSv	8888 2	2	2	4	4	3	0	2	0	0	0	0
MRI abdomen without IV contrast	Usuall approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	5	5	2	0	1	0	0	0	0
MRI abdomen without and with IV contrast	Usuall approp		Expert Consensus	Expert O 0 mSv		2	2	5	5	1	0	2	0	0	0	0
Radiography abdomen	Usuall approp		Expert Consensus © 0.1-1mSv		⊕⊕ 0.03- 0.3 mSv [ped]	2	2	6	6	1	0	0	0	0	0	0

Variant 2: Adult. Bariatric procedure. Routine immediate postprocedure evaluation.

	Procedure Appropriateness Category SOE Adults RRL Peds RR	D 1 DD1	D (1	3.6.11]	Final	Tab	ulatio	ons				
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9

	Appropri	ateness									F	inal	Tabu	latio	ns		
Procedure	Categ		SOE	Adults RR	L	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Fluoroscopy upper GI series	May approp		Limited	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	6	6	1	0	0	1	4	4	2	1	0
			References			Study	Quality										
			23 (23341032)				4										
			22 (23828033)				4										
			19 (24119721)				4										
			15 (30542825)				4										
	_		18 (25812843)				4										
CT abdomen and pelvis with IV contrast	May approp		Limited	≎≎≎ 1-10 mSv	0	���� 3- 10 mSv [ped]	5	5	1	0	2	3	5	1	0	0	1
			References			Study	Quality										
			17 (35292901)				3										
			21 (27387688)				3										
CT abdomen and pelvis without IV contrast	May approp		Limited	≎≎≎ 1-10 mSv	0	���� 3- 10 mSv [ped]	4	4	1	2	1	5	3	1	0	0	0
			References		•	Study	Quality										
			17 (35292901)				3										
			21 (27387688)				3										
CT abdomen and pelvis without and with IV contrast	Usually approp		Limited	���� 10-3 mSv	30	≎≎≎≎≎ 10-30 mSv [ped]	3	3	3	2	6	0	1	1	0	0	0
		References				Study	Quality										
		17 (35292901)					3										
		21 (27387688)					3						_				
Fluoroscopy single contrast esophagram	Usually approp		Expert Consensus	ଫଫଫ 1-1(mSv	0	��� 0.3- 3 mSv [ped]	3	3	1	5	6	0	0	0	0	0	0

Fluoroscopy upper GI series with small bowel follow-through	Usually not appropriate	Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	3	3	3	2	5	1	2	0	0	0	0
Radiography abdomen	Usually not appropriate	Expert Consensus	�� 0.1-1mSv	�� 0.03- 0.3 mSv [ped]	3	3	4	1	4	2	2	0	0	0	0
Fluoroscopy biphasic esophagram	Usually not appropriate	Expert Consensus	≎≎≎ 1-10 mSv		2	2	4	4	3	0	2	0	0	0	0
MRI abdomen without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	6	2	4	0	1	0	0	0	0
MRI abdomen without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	6	2	4	0	1	0	0	0	0
US abdomen	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	6	4	3	0	0	0	0	0	0

Variant 3: Adult. Less-invasive bariatric procedure. Suspected complication. Postprocedure evaluation.

	Appropriateness	go r							F	inal '	Tabu	latio	ns		
Procedure	Category	SOE	Adults RR	L Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
CT abdomen and pelvis with IV contrast	May be appropriate	Limited	��� 1-10 mSv	⊕⊕⊕⊕ 3- 10 mSv [ped]	6	6	0	0	0	0	6	2	2	1	1
		References		Study	y Quality										
		5 (29869916)			4										
		26 (28983652))		4										
		25 (24471382))		4										
		24 (36160820))		2										
Fluoroscopy upper GI series	May be appropriate	Limited	��� 1-10 mSv	9	6	6	0	0	1	1	4	3	3	0	0
		References		Study	y Quality										
		25 (24471382))		4										

CT abdomen and pelvis without IV contrast	May approp	Limited	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	5	5	0	0	0	2	7	3	0	0	0
		References			Study	/ Quality										
		5 (29869916)				4										
		26 (28983652)				4										
		25 (24471382)				4										
		24 (36160820)				2										
Radiography abdomen and pelvis	May approp	Limited	⊕⊕⊕ 1-10 mSv	0	��� 0.3- 3 mSv [ped]	5	5	1	1	3	0	8	0	0	0	0
		References			Study	Quality										
		26 (28983652)		_	4											
		27 (24951191)				2										
CT abdomen and pelvis without and with IV contrast	Usually approp	Expert Consensus	���� 10- mSv	30	����� 10-30 mSv [ped]	3	3	2	2	5	2	2	0	0	0	0
Fluoroscopy single contrast esophagram	Usually approp	Expert Consensus	⊕⊕⊕ 1-10 mSv	0	��� 0.3- 3 mSv [ped]	3	3	1	4	7	0	0	0	0	0	0
Fluoroscopy biphasic esophagram	Usually approp	Expert Consensus	��� 1-10 mSv	0		3	3	4	2	4	1	2	0	0	0	0
Fluoroscopy upper GI series with small bowel follow-through	Usually approp	Expert Consensus	��⊕ 1-10 mSv	0	���� 3- 10 mSv [ped]	3	3	3	2	6	1	1	0	0	0	0
US abdomen	Usually approp	Limited	O 0 mSv	,	O 0 mSv [ped]	3	3	3	3	4	2	0	0	1	0	0
		References			Study	Quality										
		28 (15525891)				4										
MRI abdomen and pelvis without IV contrast	Usually approp	Expert Consensus	O 0 mSv	,	O 0 mSv [ped]	2	2	6	1	5	0	1	0	0	0	0
MRI abdomen and pelvis without and with IV contrast	Usually approp	Expert Consensus O 0 mSv		,	O 0 mSv [ped]	2	2	6	1	5	0	1	0	0	0	0

Variant 4: Adult. Bariatric procedure. Suspected complication. Postprocedure evaluation.

	Appropriateness	go-]	Final	Tabı	ılatio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
CT abdomen and pelvis with IV contrast	Usually appropriate	Strong	��� 1-10 mSv	⊕⊕⊕⊕ 3- 10 mSv [ped]	8	8	0	0	1	0	0	1	1	8	2
		References		Study	y Quality										
		39 (36474098)			3										
		38 (32078011)			1										
		35 (25218014)			3										
		34 (27689925)			3										
		36 (25843399)			3										
		37 (29845311)			3										
		32 (25747433)			2										
		25 (24471382)			4										
		33 (29516397)		Not A	Assessed										
		30 (29395108)			4										
		31 (32944801)			4		_								
CT abdomen and pelvis without IV contrast	May be appropriate	Limited	≎≎≎ 1-10 mSv	���� 3- 10 mSv [ped]	6	6	0	0	1	0	4	2	6	0	0
		References		Study	y Quality										
		33 (29516397)		Not A	Assessed										
		32 (25747433)			2								_		
Fluoroscopy upper GI series	May be appropriate	Limited	≎	��� 0.3- 3 mSv [ped]	6	6	1	0	0	1	3	2	2	3	1
		References		Study	y Quality										
		33 (29516397)		Not A	Assessed										
		32 (25747433)			2										

Fluoroscopy single contrast esophagram	Usuall approp	Limited	��� 1-1(mSv	3 mSv [ped]	3	3	0	4	8	0	0	0	0	0	0
		References		Stud	y Quality										
		40 (26810364)			4										
Fluoroscopy biphasic esophagram	Usuall approp	Limited)	3	3	1	4	5	1	2	0	0	0	0
		References		Stud	y Quality										
		40 (26810364)			4										
Fluoroscopy upper GI series with small bowel follow-through	Usuall approp	Expert Consensus	��� 1-10 mSv	0	3	3	2	3	4	1	2	0	1	0	0
MRI abdomen and pelvis without IV contrast	Usuall approp	Strong	O 0 mSv	O 0 mSv [ped]	3	3	2	0	5	3	3	0	0	0	0
	•	References		Stud	y Quality										
		43 (34807405)			2										
		42 (35452955)			3										
		41 (30106618)			2										
Radiography abdomen and pelvis	Usuall approp	Expert Consensus	��� 1-10 mSv	0	3	3	4	2	4	0	2	0	0	1	0
CT abdomen and pelvis without and with IV contrast	Usuall approp	Expert Consensus	���� 10-3 mSv	30	2	2	3	5	4	0	0	0	0	0	0
MRI abdomen and pelvis without and with IV contrast	Usuall approp	Expert Consensus			2	2	4	3	4	1	1	0	0	0	0
US abdomen	Usuall approp	Expert Consensus	Expert O 0 mSv		2	2	3	5	5	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.