

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

Second and Third Trimester Screening for Fetal Anomaly

Variant 1: Second and third trimester screening for fetal anomaly. Low-risk pregnancy. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US pregnant uterus transabdominal anatomy scan	Usually appropriate	Limited	0 0 mSv	0 0 mSv [ped]	9	9	0	0	0	0	0	0	1	1	11
		References	Study Quality												
		30 (-3112890)	4												
		8 (24764329)	4												
		31 (26121659)	4												
		32 (21294069)	3												
US pregnant uterus transabdominal detailed scan	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	3	3	5	0	5	0	0	1	0	0	0
US echocardiography fetal	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	2	2	6	5	2	0	0	0	0	0	0
MRI fetal without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	11	1	1	0	0	0	0	0	0
MRI fetal without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	7	4	2	0	0	0	0	0	0

Variant 2: Second and third trimester screening for fetal anomaly. High-risk pregnancy. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations									
							1	2	3	4	5	6	7	8	9	
US pregnant uterus transabdominal detailed scan	Usually appropriate	Limited	0 0 mSv	0 0 mSv [ped]	9	9	0	0	0	0	0	1	2	1	9	
		References	Study Quality													
		33 (24449720)	4													
		52 (31736130)	4													
US echocardiography fetal	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	6	6	1	1	0	1	3	6	1	0	0	
		References	Study Quality													
		50 (21940548)	4													
		49 (23716531)	4													
		51 (31846540)	4													
MRI fetal without IV contrast	May be appropriate (Disagreement)	Expert Opinion	0 0 mSv	0 0 mSv [ped]	5	5	2	0	3	0	4	2	0	0	0	
		References	Study Quality													
		45 (-3112580)	4													
US pregnant uterus transabdominal anatomy scan	May be appropriate (Disagreement)	Expert Opinion	0 0 mSv	0 0 mSv [ped]	5	5	1	1	5	0	0	0	2	1	1	
		References	Study Quality													
		8 (24764329)	4													
		33 (24449720)	4													
MRI fetal without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	11	1	1	0	0	0	0	0	0	
		References	Study Quality													
		45 (-3112580)	4													

Variant 3: Second and third trimester screening for abnormal finding on ultrasound: soft markers. Next imaging study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations									
							1	2	3	4	5	6	7	8	9	
US pregnant uterus transabdominal detailed scan	Usually appropriate	Limited	0 0 mSv	0 0 mSv [ped]	9	9	0	0	0	0	1	0	1	2	9	
		References	Study Quality													
		8 (24764329)	4													
		59 (24176161)	4													
		61 (28108156)	4													
		17 (26938574)	4													
		52 (31736130)	4													
US pregnant uterus transabdominal follow-up	Usually appropriate	Limited	0 0 mSv	0 0 mSv [ped]	7	7	0	0	0	0	2	3	5	2	1	
		References	Study Quality													
		8 (24764329)	4													
		33 (24449720)	4													
		59 (24176161)	4													
		62 (22378220)	3													
		63 (22990134)	3													
		17 (26938574)	4													
US echocardiography fetal	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	6	6	0	0	0	0	3	4	3	3	0	
		References	Study Quality													
		8 (24764329)	4													
		59 (24176161)	4													
		17 (26938574)	4													
		51 (31846540)	4													
MRI fetal without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	2	2	5	4	2	0	0	0	0	0	0	
MRI fetal without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	11	1	1	0	0	0	0	0	0	

87 (20440730)	3
84 (21306331)	2
48 (28386907)	4
89 (23612626)	4

MRI fetal without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	10	2	1	0	0	0	0	0	0	
References			Study Quality													
45 (-3112580)			4													

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.