## American College of Radiology ACR Appropriateness Criteria®

## **Growth Disturbances-Risk of Fetal Growth Restriction**

Variant 1: Growth disturbance. Low risk for fetal growth restriction. Initial evaluation.

D 1	Appropriateness	COF	A L II DDI	Deda DDI Detina Median			Final Tabulations										
Procedure	Category	SOE Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9			
US pregnant uterus transabdominal	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	1	0	0	0	0	2	9		
		References		Study Quality													
		26 (26031399)			3				_								
US pregnant uterus biophysical profile	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	3	3	0	4	4	2	3	0	0	0	0		
		References		Study Quality													
		27 (2404302)			4												
US duplex Doppler fetal umbilical artery	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	3	3	3	3	5	0	0	1	0	0	0		
		References		Study	Quality												
		31 (2178428)			3												
US duplex Doppler maternal uterine artery	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	3	3	2	4	4	0	1	1	0	0	0		
		References		Study Quality													
		28 (26112630)		3													
		30 (24277892)		3		3											
		29 (28712949)		3													
US duplex Doppler ductus venosus	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	5	5	2	0	0	0	0	0	0		

US duplex Doppler fetal middle cerebral artery	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	4	6	2	0	0	0	0	0	0	
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## Variant 2: Growth disturbance. High risk for fetal growth restriction. Initial evaluation.

D	Appropriateness	COE	A J14- DDI	D. J. DDI	D - 45	N/L-31			F	inal '	Tabu	latio	ıs		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
US pregnant uterus transabdominal	Usually appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	0	2	10
US pregnant uterus biophysical profile	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	0	3	2	3	4	1
		References		Study	Quality										
		27 (2404302)		4											
		18 (16319247)													
		32 (-3130664)			4										
US duplex Doppler fetal umbilical artery	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	0	2	3	6	2	0
		References		Study	Quality										
		35 (7755042)			M										
US duplex Doppler ductus venosus	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	1	9	3	0	0	0
		References		Study	Quality										
		19 (17267821)			3										
US duplex Doppler maternal uterine artery	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	1	1	0	5	4	0	1	0
		References		Study	Quality										
		33 (25810352)		3											
		34 (25346413)			2										
US duplex Doppler fetal middle cerebral artery	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	2	6	2	0	1	0	1	0	0

Variant 3: Established fetal growth restriction. Follow-up evaluation.

	Appropriateness	GOT		DDI Dala DDI Dala Malian					Final Tabulations										
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9				
US pregnant uterus biophysical profile	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	1	0	2	9				
		References		Study	Quality			•	•				•		•				
		25 (24931475)			3														
		32 (-3130664)			4														
US pregnant uterus transabdominal	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	0	1	11				
		References		Study	Quality														
		1 (24785859)																	
		8 (24839087) 4																	
		11 (23635765)			4														
US duplex Doppler fetal umbilical artery	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	0	1	2	4	5				
		References		Study	Quality														
		44 (28032647)		2 3															
		37 (24635223)																	
		38 (25603682)			3														
		39 (25068564)			3														
		41 (25754212)			4														
		42 (25545442)			3														
		43 (25751217)			4														
		45 (23585420)			2														
		9 (15302194)			1														
		18 (16319247)			3														
		40 (23999424)			3														

US duplex Doppler ductus venosus	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	0	1	3	4	3	2
		References			/ Quality										
		47 (25747582)													
		44 (28032647)													
		18 (16319247)													
		49 (27854382)													
		48 (28938063)			4										
US duplex Doppler fetal middle cerebral artery	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	1	3	2	4	0	2
		References		Study Quality											
		25 (24931475)		3											
		40 (23999424)		3											
US duplex Doppler maternal uterine artery	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	1	0	0	1	5	4	1	1	0
		References		Study Quality											
		23 (25098960)													
		36 (25358519)			2										

## **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.