American College of Radiology
ACR Appropriateness Criteria®

Imaging of Deep Inferior Epigastric Arteries for Surgical Planning (Breast Reconstruction Surgery)

Variant 1: Imaging of deep inferior epigastric arteries for surgical planning (breast reconstruction surgery). Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CTA abdomen and pelvis with IV contrast	Usually appropriate	Strong	☢☢☢☢ 10-30 mSv		9	9	0	0	0	0	0	1	1	4	9

References	Study Quality
28 (19037689)	4
25 (19941357)	3
2 (21918046)	4
9 (19926353)	3
12 (19742426)	2
14 (19581312)	4
8 (20048587)	1
15 (23031768)	4
34 (24572842)	M
18 (23836386)	M
16 (23175495)	4
17 (20124830)	4
11 (22889458)	2
29 (24927860)	3
30 (22704607)	3
22 (27556615)	3
26 (26050970)	1
32 (26375461)	4

		24 (26654396)	4													
		23 (29926133)	3													
		31 (30182489)	2													
		20 (30691846)	3													
		19 (31136470)	3													
		27 (31492417)	4													
		33 (32221198)	3													
		21 (32590519)	1													
MRA abdomen and pelvis without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	7	7	0	1	0	1	1	3	4	3	2
		References	Study Quality													
		38 (20392982)	2													
		36 (19121986)	4													
		39 (19452440)	3													
		41 (19890807)	3													
		42 (24009659)	2													
		35 (24875438)	4													
		40 (26654701)	4													
		43 (29289500)	Inadequate													
		37 (30832989)	4													
		44 (33342741)	Good													
MRA abdomen and pelvis without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	4	4	0	4	2	1	6	0	0	0	0
		References	Study Quality													
		41 (19890807)	3													
CT abdomen and pelvis with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	2	4	3	3	3	0	0	0	0
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	3	3	2	5	4	2	1	0	1	0	0

MRI abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	1	5	7	0	0	1	1	0	0
US color Doppler abdomen and pelvis	Usually not appropriate	Strong	O 0 mSv	O 0 mSv [ped]	3	3	1	4	4	4	0	0	0	0	0

References	Study Quality
17 (20124830)	4
45 (23571697)	2
46 (25824193)	1
47 (31375431)	3

CT abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	7	5	2	0	0	0	0	1	0
MRI abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	5	5	4	1	0	0	0	0	0
Arteriography abdomen and pelvis	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	Varies	2	2	3	5	4	2	0	0	0	1	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.**