American College of Radiology ACR Appropriateness Criteria®

Lower Extremity Arterial Revascularization-Post-Therapy Imaging

Variant 1: Previous infrainguinal endovascular therapy or bypass. Asymptomatic. Surveillance.

	Appropri	iateness	G0-		_						F	inal	Tabu	ılatio	ns		
Procedure	Categ	gory	SOE	Adults RR		Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
US duplex Doppler lower extremity	Usua approp	ally oriate	Strong O 0 mSv		′	O 0 mSv [ped]	8	8	1	0	0	0	0	3	1	4	7
		References			Study	Quality											
			68 (3901378)														
			70 (17980793)														
			71 (11665434) 72 (18973986)			3											
							4										
			73 (10361211)				4										
		74 (16186435)					1										
			75 (19497506)				3										
			76 (12618681)														
			69 (21820833)														
			22 (25256612)														
			21 (22623445)				4										
			26 (24788064)				2										
MRA lower extremity without IV contrast	Usuall approp	y not oriate	Limited	O 0 mSv	,	O 0 mSv [ped]	3	3	1	4	5	2	2	1	1	0	0
			References		Study Quality												
			77 (21618851)				3										

MRA lower extremity without and with IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	3	3	0	6	8	1	0	0	0	0	0
		References		Study	Quality										
		77 (21618851)			3										
CTA lower extremity with IV contrast	Usually approp	Expert Consensus	≎≎≎ 1-10 mSv	0	3	3	0	5	9	1	0	0	0	0	0
Arteriography lower extremity	Usually approp	Expert Consensus	�� 0.1-1m	⊕⊕⊕ 0.3- 3 mSv [ped]	1	1	10	2	2	0	1	0	0	1	0

Variant 2: Previous infrainguinal endovascular therapy or bypass. Claudication or CLI. Initial imaging.

	Appropri	ateness	COF	4.1.14 DD1		. D. I	D (1	3.6.11			F	inal '	inal Tabulations				
Procedure	Categ		SOE	Adults RRI	L Peds I	KKL	Rating	Median	1	2	3	4	5	6	7	8	9
US duplex Doppler lower extremity	Usual approp		Limited	O 0 mSv	O 0 n [pe		9	9	1	0	0	0	0	0	0	4	11
			References		Study Quality												
			79 (24636606)		4												
			22 (25256612)														
			17 (22835567)														
			16 (23716153)		4												
			26 (24788064)		2							_					
CTA lower extremity with IV contrast	Usual approp		Limited	��� 1-10 mSv	999 € 10 m [pec	Sv	8	8	0	0	1	0	0	0	4	8	3
			References		Study Quality												
			80 (25241315)				4										
MRA lower extremity without and with IV contrast	Usual approp		Limited	O 0 mSv	O 0 n [pe		8	8	0	0	1	1	1	0	5	7	1
			References		Study Quality												
			9 (22172470)				4										

			80 (25241315)														
		4 (16549646)				4											
Arteriography lower extremity	May approp		Expert Consensus			��� 0.3- 3 mSv [ped]	5	5	0	0	0	3	10	1	1	0	0
MRA lower extremity without IV contrast	May approp	be oriate	Limited	O 0 mSv		O 0 mSv [ped]	5	5	0	0	1	0	9	4	1	0	0
			References		Study Quality												
			9 (22172470)		4												
		80 (25241315)		4													
			4 (16549646)				4										

Variant 3: Previous infrainguinal endovascular therapy or bypass, presenting with cold, painful extremity and diminished pulses (acute limb ischemia). Initial imaging.

D 1	Appropriateness				DDI	D 41	3.6.11	Final Tabulations								
Procedure	Category	SOE	Adults RR	L Peas	RRL	Rating	Median	1	2	3	4	5	6	7 8 9 0 2 8 5		
Arteriography lower extremity	Usually appropriate	Limited	�� 0.1-1m	Sv 3 m	0.3- nSv ed]	8	8	0	1	0	0	0	0	2	8	5
		References	ces		Study Quality											
		86 (19853229)	86 (19853229)		4											
		84 (19298929)	, and the second		4											
		85 (22670905)				4										
CTA lower extremity with IV contrast	Usually appropriate	Moderate	��� 1-10 mSv) 10 r	≎≎ 3- mSv ed]	8	8	0	1	0	0	2	1	2	5	5
		References		Study Quality												
		88 (26032010)				2										
		87 (19176443)				M										
		36 (21420330)				3										
US duplex Doppler lower extremity	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]		7	7	0	0	1	0	1	3	4	4	3

References	Study Quality
82 (23988137)	4
83 (27531096)	3

MRA lower extremity without and with IV contrast	May be appropriate (Disagreement)	Expert Opinion	O 0 mSv	O 0 mSv [ped]	5	5	0	2	1	6	4	0	2	0	0	
MRA lower extremity without IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	4	4	1	3	3	2	5	1	1	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.