

American College of Radiology
ACR Appropriateness Criteria®

Vision Loss

Variant 1: Adult. Acute posttraumatic visual defect. Suspect orbital injury. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT orbits without IV contrast	Usually appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	9	9	0	0	1	0	1	1	2	3	10
		References		Study Quality											
		30 (26208419)		4											
		29 (25397707)		4											
		24 (22964404)		4											
		20 (25086804)		4											
CT maxillofacial without IV contrast	Usually appropriate	Limited	☹☹ 0.1-1mSv		9	9	1	0	0	1	0	2	2	3	9
		References		Study Quality											
		30 (26208419)		4											
		29 (25397707)		4											
		24 (22964404)		4											
		20 (25086804)		4											
CT head without IV contrast	May be appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	5	5	1	0	1	2	10	3	1	0	0
		References		Study Quality											
		34 (28455003)		4											
		35 (29503015)		2											

MRI orbits without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	3	3	6	2	7	3	0	0	0	0	0
		References		Study Quality											
		13 (25086805)		4											
		27 (25882280)		2											
		29 (25397707)		4											
CTA head with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	12	4	0	0	1	1	0	0	0
CT orbits with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	10	1	3	2	0	1	0	1	0
CT orbits without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	16	1	1	0	0	0	0	0	0
CT head with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	13	0	3	0	1	1	0	0	0
CT head without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	13	0	2	1	1	1	0	0	0
CTA head and neck with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	12	2	1	0	1	1	1	0	0
CT maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	☼☼ 0.1-1mSv		1	1	11	0	4	1	1	1	0	0	0
CT maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv		1	1	12	0	4	0	1	1	0	0	0
Arteriography cerebral	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	16	1	0	0	1	0	0	0	0
MRA head without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	0	1	1	1	0	0	0	0
MRA head without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	0	1	0	2	0	0	0	0

MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	0	1	1	1	0	0	0	0
MRA head and neck without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	0	1	0	0	2	0	0	0
MRI head without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	11	2	2	1	1	1	0	0	0
MRI head without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	13	1	2	0	0	1	1	0	0
Radiography orbit	Usually not appropriate	Limited	☼ <0.1 mSv	☼ <0.03 mSv [ped]	1	1	14	0	2	0	1	1	0	0	0

References	Study Quality
24 (22964404)	4
30 (26208419)	4

MRA head with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	0	1	1	1	0	0	0	0
MRI orbits without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	13	0	1	1	1	1	0	0	1
MRI head with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	13	2	1	0	1	1	0	0	0
MRA head and neck with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	0	1	1	0	1	0	0	0
Radiography face	Usually not appropriate	Limited	☼ <0.1 mSv		1	1	13	1	2	0	1	1	0	0	0

References	Study Quality
24 (22964404)	4
30 (26208419)	4

MRI orbits with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	12	0	4	0	0	1	1	0	0
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Variant 2: Adult. Acute vision loss. Infection or inflammatory disorder suspected. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT orbits with IV contrast	Usually appropriate	Limited	⊕⊕⊕ 1-10 mSv	⊕⊕⊕ 0.3-3 mSv [ped]	9	9	1	0	0	1	0	2	3	2	9
		References		Study Quality											
		12 (30310941)		4											
		37 (18936033)		4											
		39 (23053380)		4											
CT maxillofacial with IV contrast	Usually appropriate	Limited	⊕⊕ 0.1-1mSv		9	9	0	0	1	0	0	0	1	1	15
		References		Study Quality											
		12 (30310941)		4											
		37 (18936033)		4											
		39 (23053380)		4											
MRI orbits without and with IV contrast	Usually appropriate	Limited	○ ○ 0 mSv	○ ○ 0 mSv [ped]	9	9	0	0	0	0	0	1	2	3	12
		References		Study Quality											
		12 (30310941)		4											
		35 (29503015)		2											
		38 (18842758)		4											
MRI head without and with IV contrast	May be appropriate	Limited	○ ○ 0 mSv	○ ○ 0 mSv [ped]	6	6	0	0	0	1	8	7	2	0	0
		References		Study Quality											
		44 (27010526)		2											
		41 (30978149)		4											

CT orbits without IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	4	4	3	2	3	4	4	1	1	0	0
		References		Study Quality											
		40 (36830848)		4											
MRI orbits without IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	3	3	8	0	6	2	1	1	0	0	0
		References		Study Quality											
		12 (30310941)		4											
CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	☼☼ 0.1-1mSv		2	2	9	3	6	0	0	0	0	0	0
CTA head with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	12	2	1	1	1	1	0	0	0
CT orbits without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	14	2	2	0	0	0	0	0	0
CT head with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	12	1	1	1	2	1	0	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	13	0	1	2	1	0	1	0	0
CT head without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	13	0	2	0	1	1	0	1	0
CTA head and neck with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	15	0	1	0	1	1	0	0	0
CT maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv		1	1	13	1	1	1	1	0	0	1	0
Arteriography cerebral	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	17	0	0	0	1	0	0	0	0

MRA head without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	11	3	1	2	0	1	0	0	0
		References	Study Quality												
		41 (30978149)	4												
		42 (30115678)	2												
MRA head without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	1	0	0	0	2	0	0	0
MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	14	1	2	0	0	1	0	0	0
MRA head and neck without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	14	1	1	0	0	1	1	0	0
MRI head without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	11	1	3	1	0	2	0	0	0
MRV head without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	13	3	1	0	0	0	1	0	0
		References	Study Quality												
		45 (32154332)	4												
CTV head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	13	2	1	0	0	2	0	0	0
MRV head without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	13	2	1	0	1	1	0	0	0
		References	Study Quality												
		45 (32154332)	4												
MRA head with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	10	3	2	2	0	1	0	0	0
		References	Study Quality												
		42 (30115678)	2												
		41 (30978149)	4												
MRV head with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	12	2	4	0	0	0	0	0	0

		References	Study Quality													
		44 (27010526)	2													
MRI head with IV contrast	Usually not appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	1	1	13	1	2	0	0	0	2	0	0	
MRA head and neck with IV contrast	Usually not appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	1	1	14	1	1	0	1	1	0	0	0	
MRI orbits with IV contrast	Usually not appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	1	1	10	3	1	2	0	0	1	1	0	

Variant 3: Adult. Chronic or progressive unilateral vision loss. Intraorbital mass-like lesion suspected or vascular lesion suspected. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
MRI orbits without and with IV contrast	Usually appropriate	Limited	○ ○ mSv	○ ○ mSv [ped]	9	9	0	0	0	0	0	0	1	2	15
		References	Study Quality												
		46 (25195185)	4												
		50 (26518678)	4												
CT orbits with IV contrast	May be appropriate	Limited	⊗⊗⊗ 1-10 mSv	⊗⊗⊗ 0.3-3 mSv [ped]	5	5	0	1	1	1	13	2	0	0	0
		References	Study Quality												
		48 (24614543)	4												
		50 (26518678)	4												
		52 (24108560)	4												
MRI head without and with IV contrast	May be appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	5	5	1	0	1	5	10	1	0	0	0
CTA head with IV contrast	Usually not appropriate	Limited	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	1	1	12	0	1	1	2	1	0	1	0
		References	Study Quality												

		48 (24614543)		4												
CT orbits without IV contrast	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	1	1	16	1	1	0	0	0	0	0	0	0
		References		Study Quality												
		46 (25195185)		4												
		50 (26518678)		4												
		52 (24108560)		4												
CT orbits without and with IV contrast	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	1	1	13	1	3	0	1	0	0	0	0	0
		References		Study Quality												
		50 (26518678)		4												
		52 (24108560)		4												
CT head with IV contrast	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	1	1	15	0	1	0	0	2	0	0	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	1	1	14	0	1	1	1	1	0	0	0	0
CT head without and with IV contrast	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	1	1	13	0	3	0	0	0	2	0	0	0
CT maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	☹☹ 0.1-1mSv		1	1	11	4	1	1	0	1	0	0	0	0
CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	☹☹ 0.1-1mSv		1	1	13	1	2	0	0	2	0	0	0	0
CT maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv		1	1	13	1	1	0	1	1	0	0	1	1
Arteriography cerebral	Usually not appropriate	Expert Consensus	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	1	1	16	0	1	0	0	1	0	0	0	0
MRA head without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	15	2	0	0	0	0	1	0	0	0

MRA head without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	1	0	0	0	1	0	1	0
MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	16	0	0	1	0	1	0	0	0
MRA head and neck without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	1	0	0	0	1	0	0	1
MRI head without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	13	1	1	2	0	1	0	0	0
FDG-PET/CT skull base to mid-thigh	Usually not appropriate	Limited	☼☼☼☼ 10-30 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	17	0	0	0	0	1	0	0	0

References	Study Quality
50 (26518678)	4
53 (31939615)	4

MRA head with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	14	1	0	0	1	1	1	0	0
MRI orbits without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	12	2	4	0	0	0	0	0	0

References	Study Quality
46 (25195185)	4
50 (26518678)	4

MRI head with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	13	1	1	1	0	0	0	2	0
MRA head and neck with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	0	0	0	1	1	0	1	0
MRI orbits with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	12	0	3	1	0	0	1	1	0

Variant 4: Adult. Acute vision loss, retinal structural abnormality suspected. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CTA head with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	1	1	16	0	0	1	0	0	0	1	0
CT orbits with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗ 0.3-3 mSv [ped]	1	1	14	1	0	0	1	2	0	0	0
CT orbits without IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗ 0.3-3 mSv [ped]	1	1	14	0	1	1	1	1	0	0	0
CT orbits without and with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗ 0.3-3 mSv [ped]	1	1	15	0	1	1	0	0	1	0	0
CT head with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗ 0.3-3 mSv [ped]	1	1	16	1	0	0	1	0	0	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗ 0.3-3 mSv [ped]	1	1	14	1	0	1	0	1	1	0	0
CT head without and with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	1	1	16	1	0	0	0	0	0	1	0
CT maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗ 0.1-1mSv		1	1	15	1	0	0	2	0	0	0	0
CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	⊗⊗ 0.1-1mSv		1	1	15	1	0	1	1	0	0	0	0
CT maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv		1	1	15	1	0	1	0	0	1	0	0
MRA head without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	16	0	1	0	0	0	0	0	1
MRA head without and with IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	16	0	1	0	0	0	0	0	1

References	Study Quality
72 (11545635)	4
71 (35439224)	4
64 (33584521)	4
70 (29683029)	4
69 (31756609)	2
63 (33766824)	4
74 (28495949)	3
52 (24108560)	4
75 (34851430)	4
62 (35091465)	4
60 (36062458)	4
68 (34281903)	4
73 (29563953)	4

MRI head without and with IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	1	14	3	0	0	0
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References	Study Quality
68 (34281903)	4
67 (33737263)	3
65 (31435862)	4
66 (36017841)	2

CT orbits without IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	2	2	8	2	3	3	1	1	0	0	0
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References	Study Quality
52 (24108560)	4

MRI head without IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	9	0	3	2	3	1	0	0	0
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References	Study Quality
69 (31756609)	2

CTA head with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	16	1	0	0	0	1	0	0	0
CT orbits with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	15	2	1	0	0	0	0	0	0
		References	Study Quality												
		52 (24108560)	4												
CT orbits without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	16	1	1	0	0	0	0	0	0
CT head with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	14	1	1	0	1	0	1	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	15	0	1	1	0	0	1	0	0
CT head without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	14	1	1	0	0	1	1	0	0
CTA head and neck with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	16	0	1	0	0	1	0	0	0
CT maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	☼☼ 0.1-1mSv		1	1	15	0	1	0	0	1	1	0	0
CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	☼☼ 0.1-1mSv		1	1	15	1	1	0	0	1	0	0	0
CT maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv		1	1	14	1	1	0	0	1	0	1	0
MRA head without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	15	0	1	0	1	1	0	0	0
MRA head without and with IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	15	1	0	0	1	1	0	0	0

		78 (25248586)		4											
		79 (36799985)		4											
MRI head without and with IV contrast	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	5	5	0	0	0	1	9	6	0	1	1
		References		Study Quality											
		79 (36799985)		4											
CTA head with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	2	2	9	1	3	1	3	1	0	0	0
		References		Study Quality											
		76 (23891029)		4											
CT sella without IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	2	2	9	2	2	2	1	1	1	0	0
		References		Study Quality											
		2 (22284056)		4											
		79 (36799985)		4											
CT orbits with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	15	0	1	0	1	1	0	0	0
CT orbits without IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	15	0	1	1	1	0	0	0	0
CT orbits without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	14	0	1	1	0	1	1	0	0
CT head with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	16	0	0	2	0	0	0	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	15	0	1	0	0	0	1	1	0
CT head without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	15	0	1	0	1	1	0	0	0

CTA head and neck with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	15	1	1	0	0	1	0	0	0
Arteriography cerebral	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	15	0	2	0	1	0	0	0	0
MRA head without IV contrast	Usually not appropriate	Moderate	○ 0 mSv	○ 0 mSv [ped]	1	1	10	0	4	1	3	0	0	0	0
		References		Study Quality											
		76 (23891029)		4											
		80 (24103356)		4											
		81 (28887618)		Good											
MRA head without and with IV contrast	Usually not appropriate	Moderate	○ 0 mSv	○ 0 mSv [ped]	1	1	12	0	4	1	1	0	0	0	0
		References		Study Quality											
		76 (23891029)		4											
		80 (24103356)		4											
		81 (28887618)		Good											
MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	14	1	3	0	0	0	0	0	0
MRA head and neck without and with IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	14	1	3	0	0	0	0	0	0
MRI head without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	15	1	1	0	1	0	0	0	0
MRA head with IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	1	1	10	0	4	1	3	0	0	0	0
		References		Study Quality											
		76 (23891029)		4											
		80 (24103356)		4											
MRI orbits without and with IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	12	2	1	1	0	1	0	1	0

MRI orbits without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	14	0	2	0	0	1	1	0	0
CT sella without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	14	2	2	0	0	0	0	0	0
CT sella with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	12	2	4	0	0	0	0	0	0
MRI sella with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	14	1	2	0	1	0	0	0	0
MRI sella without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	10	2	4	0	1	0	1	0	0
		References		Study Quality											
		62 (35091465)		4											
		79 (36799985)		4											
MRI head with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	16	2	0	0	0	0	0	0	0
MRA head and neck with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	14	1	3	0	0	0	0	0	0
MRI orbits with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	13	1	1	1	0	1	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.