American College of Radiology ACR Appropriateness Criteria®

Vision Loss

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

	Appropriateness	207							I	inal	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	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	��� 0.3- 3 mSv [ped]	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 approp	Limited	O 0 mSv	O 0 mSv [ped]	3	3	6	2	7	3	0	0	0	0	0
		References		Study	y Quality										
		13 (25086805)			4										
		27 (25882280)			2										
		29 (25397707)			4	,									
CTA head with IV contrast	Usually approp	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 approp	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 approp	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 approp	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 approp	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 approp	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 approp	Expert Consensus	�� 0.1-1m\$	ॐ ॐ ॐ 0.3- 3 mSv [ped]	1	1	11	0	4	1	1	1	0	0	0
CT maxillofacial without and with IV contrast	Usually approp	Expert Consensus	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	12	0	4	0	1	1	0	0	0
Arteriography cerebral	Usually approp	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 approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	1	1	0	0	0	0

				1											
MRA head without and with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	0	2	0	0	0	0
MRA head and neck without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	1	1	0	0	0	0
MRA head and neck without and with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	0	0	2	0	0	0
MRI head without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	2	2	1	1	1	0	0	0
MRI head without and with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	1	2	0	0	1	1	0	0
Radiography orbit	Usuall approp	Limited	 <0.1 mS	Sv	1	1	14	0	2	0	1	1	0	0	0
		References		Stud	ly Quality										
		24 (22964404)			4										
		30 (26208419)			4										
MRA head with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	1	1	0	0	0	0
MRI orbits without and with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	0	1	1	1	1	0	0	1
MRI head with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	1	0	1	1	0	0	0
MRA head and neck with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	1	0	1	0	0	0
Radiography face	Usuall approp	Limited	 <0.1 mS	Sv	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	O 0 mSv	O 0 mSv [ped]	1	1	12	0	4	0	0	1	1	0	0	
-----------------------------	-------------------------	---------------------	---------	------------------	---	---	----	---	---	---	---	---	---	---	---	--

Variant 2: Adult. Acute vision loss. Infection or inflammatory disorder suspected. Initial imaging.

	Appropriateness	COT		_	D 1 DD1	- ·	3.5.31			F	inal	Tabu	latio	ns		
Procedure	Category	SOE	Adults RR	L	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
CT orbits with IV contrast	Usually appropriate	Limited	��� 1-10 mSv	0	��� 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	�� 0.1-1m	ıSv	��� 0.3- 3 mSv [ped]	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	O 0 mSv	,	O 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	O 0 mSv	,	O 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 approp	Limited	��� 1-10 mSv	0	��� 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	Usuall approp	Limited	O 0 mSv	,	O 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	Usuall approp	Expert Consensus	�� 0.1-1m		��� 0.3- 3 mSv [ped]	2	2	9	3	6	0	0	0	0	0	0
CTA head with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	1	1	12	2	1	1	1	1	0	0	0
CT orbits without and with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	1	1	14	2	2	0	0	0	0	0	0
CT head with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	1	1	12	1	1	1	2	1	0	0	0
CT head without IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	1	1	13	0	1	2	1	0	1	0	0
CT head without and with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	1	1	13	0	2	0	1	1	0	1	0
CTA head and neck with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	1	1	15	0	1	0	1	1	0	0	0
CT maxillofacial without and with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	1	1	13	1	1	1	1	0	0	1	0
Arteriography cerebral	Usuall approp	Expert Consensus	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	1	1	17	0	0	0	1	0	0	0	0

MRA head without IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	11	3	1	2	0	1	0	0	0
		References		Stud	y Quality										
		41 (30978149)			4										
		42 (30115678)			2										
MRA head without and with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	0	0	0	2	0	0	0
MRA head and neck without IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	2	0	0	1	0	0	0
MRA head and neck without and with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	1	0	0	1	1	0	0
MRI head without IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	11	1	3	1	0	2	0	0	0
MRV head without IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	13	3	1	0	0	0	1	0	0
		References		Stud	y Quality		•								
		45 (32154332)			4										
CTV head with IV contrast	Usually approp	Expert Consensus	≎≎≎ 1-10 mSv	0	1	1	13	2	1	0	0	2	0	0	0
MRV head without and with IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	13	2	1	0	1	1	0	0	0
		References		Stud	y Quality		·								
		45 (32154332)			4										
MRA head with IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	10	3	2	2	0	1	0	0	0
		References		Stud	y Quality										
		42 (30115678)			2										
		 41 (30978149)			4										
MRV head with IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	12	2	4	0	0	0	0	0	0

		References		Stud	y Quality										
		44 (27010526)			2		_					_			
MRI head with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	1	2	0	0	0	2	0	0
MRA head and neck with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	1	0	1	1	0	0	0
MRI orbits with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 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.

D 1	Appropriateness	COF	A L L DDI	D I DDI	D 4	3.6 11			F	inal '	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
MRI orbits without and with IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 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	ଡେଡ 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	O 0 mSv	O 0 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 approp	Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	16	1	1	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 approp	Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	13	1	3	0	1	0	0	0	0
		References		Study	Quality										
		50 (26518678)		_	4										
		52 (24108560)			4										
CT head with IV contrast	Usually approp	Expert Consensus	&& 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	15	0	1	0	0	2	0	0	0
CT head without IV contrast	Usually approp	Expert Consensus	&&& 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	14	0	1	1	1	1	0	0	0
CT head without and with IV contrast	Usually approp	Expert Consensus	&&& 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	13	0	3	0	0	0	2	0	0
CT maxillofacial with IV contrast	Usually approp	Expert Consensus	�� 0.1-1m\$	ॐ �� 0.3- Sv 3 mSv [ped]	1	1	11	4	1	1	0	1	0	0	0
CT maxillofacial without IV contrast	Usually approp	Expert Consensus	�� 0.1-1m\$	ॐ �� 0.3- Sv 3 mSv [ped]	1	1	13	1	2	0	0	2	0	0	0
CT maxillofacial without and with IV contrast	Usually approp	Expert Consensus	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	13	1	1	0	1	1	0	0	1
Arteriography cerebral	Usually approp	Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	16	0	1	0	0	1	0	0	0

MRA head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	0	0	1	0	0
MRA head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 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	O 0 mSv	O 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	O 0 mSv	O 0 mSv [ped]	1	1	15	1	0	0	0	1	0	0	1
MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 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	0	1	1	17	0	0	0	0	1	0	0	0
		References		Study	y Quality										
		50 (26518678)			4										
		53 (31939615)			4										
MRA head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	0	0	1	1	1	0	0
MRI orbits without IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	12	2	4	0	0	0	0	0	0
		References		Study	y Quality		•						•		
		46 (25195185)		_	4										
		50 (26518678)			4										
MRI head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 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	O 0 mSv	O 0 mSv [ped]	1	1	15	0	0	0	1	1	0	1	0
MRI orbits with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	0	3	1	0	0	1	1	0

 $\overline{}$

т

 \neg

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

D .	Appropriateness	COE	A L L DDY	D I DDI	D (1	36.11			F	inal '	Гаbu	latio	ıs		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	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	��� 0.3- 3 mSv [ped]	1	1	15	1	0	0	2	0	0	0	0
CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	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	��� 0.3- 3 mSv [ped]	1	1	15	1	0	1	0	0	1	0	0

MRA head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 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	O 0 mSv	O 0 mSv [ped]	1	1	16	0	1	0	0	0	0	0	1
MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	0	1	0	0	0	0	0	1
MRA head and neck without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	0	0	1	0	0	0	0	1
MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	0	1	1	0	0	1	0
MRI head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	1	2	0	0	1	0
MRA head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	0	1	0	0	0	1	0	0
MRI orbits without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	12	2	1	2	1	0	0	0	0
		References		Study	Quality		•								
		56 (28506603)		_	4										
MRI orbits without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	0	1	1	1	2	0	0	0
MRI head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	0	1	1	0	0	1	0
MRA head and neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	0	0	1	0	0	0	0	1
MRI orbits with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	1	0	0	0	0	0	0

Variant 5: Adult. Acute or chronic vision loss, optic nerve abnormality suspected. Initial imaging.

	Appropriateness	GOT	4.1.1. DD7	D 1 DD1	.	3.5.11			F	inal	Tabu	latio	ıs		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
MRI orbits without and with IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	1	2	15
		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					1	1				
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
		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
		References		Study	/ Quality									_	
		52 (24108560)			4										

MRI head without IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	2	2	9	0	3	2	3	1	0	0	0
		References		Study	y Quality		•						•	•	
		69 (31756609)			2										
CTA head with IV contrast	Usually approp	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 approp	Limited	≎⊕⊕ 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	15	2	1	0	0	0	0	0	0
		References		Study	y Quality										
		52 (24108560)			4										
CT orbits without and with IV contrast	Usually approp	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 approp	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 approp	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 approp	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 approp	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 approp	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	15	0	1	0	0	1	1	0	0
CT maxillofacial without IV contrast	Usually approp	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	15	1	1	0	0	1	0	0	0
CT maxillofacial without and with IV contrast	Usually approp	Expert Consensus	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	14	1	1	0	0	1	0	1	0

MRA head without IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	0	1	1	0	0	0
MRA head without and with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	0	0	1	1	0	0	0
MRA head and neck without IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	1	0	0	0	0
MRA head and neck without and with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	0	1	0	0	0
MRA head with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	0	1	0	0	0	0
MRI orbits without IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	11	1	2	1	2	1	0	0	0
		References		Study	y Quality										
		74 (28495949)			3										
		73 (29563953)			4										
		64 (33584521)			4										
		62 (35091465)			4										
		60 (36062458)			4										
		72 (11545635)			4										
		52 (24108560)			4										
MRI head with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	1	2	0	0	0	2	0	0
MRA head and neck with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	0	0	1	0	0	0
MRI orbits with IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	1	0	1	0	0	0	0

Variant 6: Adult. Bitemporal hemianopia or junctional scotoma. Sellar or parasellar mass suspected. Initial imaging.

	Appropri	ateness	207							F	inal '	Tabu	latio	ns		
Procedure	Categ		SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
MRI sella without and with IV contrast	Usua approp		Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	0	1	17
			References		Study	y Quality										
			78 (25248586)			4										
			79 (36799985)			4										
MRI head without and with IV contrast	May approp		Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	1	9	6	0	1	1
			References		Study	y Quality										
			79 (36799985)			4										
CTA head with IV contrast	Usually approp		Limited	��� 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	2	2	9	1	3	1	3	1	0	0	0
			References		Study	y Quality					•				'	
			76 (23891029)			4										
CT sella without IV contrast	Usually approp		Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	2	2	9	2	2	2	1	1	1	0	0
			References		Study	y Quality					•			•	•	
			2 (22284056)			4										
			79 (36799985)			4										
CT orbits with IV contrast	Usually approp		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 approp		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 approp		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 approp		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 ne appropria		��� 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 ne appropria		��� 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 no appropria		��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	15	1	1	0	0	1	0	0	0
Arteriography cerebral	Usually no appropria		��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	15	0	2	0	1	0	0	0	0
MRA head without IV contrast	Usually no appropria		O 0 mSv	O 0 mSv [ped]	1	1	10	0	4	1	3	0	0	0	0
		References		Study	Quality					•	•	•			
		76 (23891029	9)												
		80 (24103356			4										
		81 (28887618	·	(
MRA head without and with IV contrast	Usually nappropria	ot Moderate	O 0 mSv	O 0 mSv [ped]	1	1	12	0	4	1	1	0	0	0	0
		References		Study	Quality		•			•		•			
		76 (23891029	9)	-	4										
		80 (24103356	5)		4										
		81 (28887618	3)	C	Good										
MRA head and neck without IV contrast	Usually no appropria		O 0 mSv	O 0 mSv [ped]	1	1	14	1	3	0	0	0	0	0	0
MRA head and neck without and with IV contrast	Usually ne appropria		O 0 mSv	O 0 mSv [ped]	1	1	14	1	3	0	0	0	0	0	0
MRI head without IV contrast	Usually ne appropria		O 0 mSv	O 0 mSv [ped]	1	1	15	1	1	0	1	0	0	0	0
MRA head with IV contrast	Usually n	int		O 0 mSv			10							0	0
WIKA head with I v contrast	appropria		O 0 mSv	[ped]	1	1	10	0	4	1	3	0	0		

		76 (23891029)				4										
		80 (24103356)				4										
MRI orbits without and with IV contrast	Usually approp	Expert Consensus	O 0 mSv	/	O 0 mSv [ped]	1	1	12	2	1	1	0	1	0	1	0
MRI orbits without IV contrast	Usually approp	Expert Consensus	O 0 mSv	/	O 0 mSv [ped]	1	1	14	0	2	0	0	1	1	0	0
CT sella without and with IV contrast	Usually approp	Expert Consensus	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	1	1	14	2	2	0	0	0	0	0	0
CT sella with IV contrast	Usually approp	Expert Consensus	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	1	1	12	2	4	0	0	0	0	0	0
MRI sella with IV contrast	Usually approp	Expert Consensus	O 0 mSv	/	O 0 mSv [ped]	1	1	14	1	2	0	1	0	0	0	0
MRI sella without IV contrast	Usually approp	Limited	O 0 mSv	′	O 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 approp	Expert Consensus	O 0 mSv	/	O 0 mSv [ped]	1	1	16	2	0	0	0	0	0	0	0
MRA head and neck with IV contrast	Usually approp	Expert Consensus	O 0 mSv	′	O 0 mSv [ped]	1	1	14	1	3	0	0	0	0	0	0
MRI orbits with IV contrast	Usually approp	Expert Consensus	O 0 mSv	′	O 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.