American College of Radiology
ACR Appropriateness Criteria®

Ataxia-Child

Variant 1: Child. Acute ataxia, no history of recent trauma. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
MRI head without and with IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	8	8	1	0	0	0	1	2	2	4	8

References	Study Quality
18 (31327588)	3
20 (30932991)	4
19 (30948362)	3

CT head without IV contrast	Usually appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	7	7	0	0	0	0	5	3	3	2	5

References	Study Quality
13 (23683541)	4
18 (31327588)	3
20 (30932991)	4
7 (27789117)	4
28 (26444039)	4
26 (25535060)	2

MRI head without IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	7	7	0	0	1	0	2	1	6	4	4

References	Study Quality
18 (31327588)	3
20 (30932991)	4

		19 (30948362)		3											
CTA head and neck with IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	0	0	1	3	13	2	0	0	0
		References		Study Quality											
		20 (30932991)		4											
		7 (27789117)		4											
		26 (25535060)		2											
MRA head without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	1	17	0	0	0	0
		References		Study Quality											
		20 (30932991)		4											
		7 (27789117)		4											
		26 (25535060)		2											
MRA head and neck without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	1	0	1	0	17	0	0	0	0
		References		Study Quality											
		20 (30932991)		4											
		7 (27789117)		4											
		26 (25535060)		2											
MRA neck without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	0	18	0	0	0	0
		References		Study Quality											
		20 (30932991)		4											
		7 (27789117)		4											
		26 (25535060)		2											
MRI complete spine without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	1	0	0	7	10	0	0	1	0
		References		Study Quality											
		20 (30932991)		4											
		29 (19898915)		4											

MRI complete spine without and with IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	2	0	0	2	15	0	0	0	0
	References	Study Quality													
	20 (30932991)	4													
	29 (19898915)	4													
MRA neck with IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	8	10	0	0	0	0
	References	Study Quality													
	20 (30932991)	4													
	7 (27789117)	4													
	26 (25535060)	2													
CTA head with IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	4	4	0	0	1	11	6	1	0	0	0
	References	Study Quality													
	20 (30932991)	4													
	7 (27789117)	4													
	26 (25535060)	2													
CTA neck with IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	4	4	0	0	1	11	6	1	0	0	0
	References	Study Quality													
	20 (30932991)	4													
	7 (27789117)	4													
	26 (25535060)	2													
CT head with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	3	3	5	1	5	0	6	1	0	0	0
	References	Study Quality													
	13 (23683541)	4													
	18 (31327588)	3													
	20 (30932991)	4													
	7 (27789117)	4													

		28 (26444039)		4											
		26 (25535060)		2											
CT head without and with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	5	4	3	1	4	1	0	0	0
		References		Study Quality											
		13 (23683541)		4											
		18 (31327588)		3											
		20 (30932991)		4											
		7 (27789117)		4											
		28 (26444039)		4											
		26 (25535060)		2											
MRV head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	7	2	5	1	1	2	0	0	0
MRV head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	6	4	4	1	1	2	0	0	0
CTV head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	9	2	4	0	2	1	0	0	0
MRV head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	9	10	0	0	0	0	0	0	0
MRI chest abdomen pelvis without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	6	10	0	0	2	1	0	0	0
		References		Study Quality											
		13 (23683541)		4											
		2 (24716559)		4											
MRV head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	8	11	0	0	0	0	0	0	0
CT chest abdomen pelvis with IV contrast	Usually not appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	10	1	1	2	4	0	0	0	0
		References		Study Quality											

		13 (23683541)		4											
		2 (24716559)		4											
CT chest abdomen pelvis without IV contrast	Usually not appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	15	2	1	0	0	0	0	0	0
		References		Study Quality											
		13 (23683541)		4											
		2 (24716559)		4											
CT chest abdomen pelvis without and with IV contrast	Usually not appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	1	1	14	1	2	0	1	0	0	0	0
		References		Study Quality											
		13 (23683541)		4											
		2 (24716559)		4											
MR spectroscopy head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	1	3	2	1	0	0	0	0
MIBG scan	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	11	7	0	1	0	0	0	0	0
		References		Study Quality											
		13 (23683541)		4											
		2 (24716559)		4											
MRI chest abdomen pelvis without IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	10	0	2	5	1	0	0	0	0
		References		Study Quality											
		13 (23683541)		4											
		2 (24716559)		4											
CT complete spine without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	14	2	2	0	0	0	0	0	0
CT complete spine without IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	13	3	2	0	0	0	0	0	0

CT complete spine with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	14	2	1	0	0	0	1	0	0

Variant 2: Child. Acute ataxia, history of recent trauma. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT head without IV contrast	Usually appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	9	9	0	0	0	0	1	0	1	2	14
		References		Study Quality											
		7 (27789117)		4											
MRI head without IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	7	7	0	0	1	0	4	4	3	2	4
		References		Study Quality											
		4 (22595899)		4											
		26 (25535060)		2											
		33 (21292802)		4											
		32 (19863638)		4											
CTA head and neck with IV contrast	May be appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	6	6	0	0	0	1	6	4	8	0	0
CTA head with IV contrast	May be appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	0	0	0	0	15	3	1	0	0
CTA neck with IV contrast	May be appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	5	5	0	0	0	0	15	3	1	0	0
MRA head without IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	0	18	1	0	0	0
MRA head and neck without IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	0	17	2	0	0	0

MRA neck without IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	0	18	1	0	0	0
MRA neck with IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	5	13	1	0	0	0
MRI head without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	3	3	4	4	4	4	2	0	1	0	0

References	Study Quality
4 (22595899)	4
26 (25535060)	2
33 (21292802)	4
32 (19863638)	4

CT head with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	2	2	7	4	3	0	3	1	0	0	0

References	Study Quality
7 (27789117)	4

CT head without and with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	9	2	3	0	3	1	0	0	0

References	Study Quality
7 (27789117)	4

MRI complete spine without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	7	4	8	0	0	0	0	0	0
MRI complete spine without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	9	0	4	0	3	1	1	0	0
MRV head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	9	10	0	0	0	0	0	0	0
CTV head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	9	3	1	2	1	2	0	0	0
MRV head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	7	12	0	0	0	0	0	0	0

CT complete spine without IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	7	3	9	0	0	0	0	0	0
MR spectroscopy head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	0	0	1	1	0	0	0	0
MRV head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	7	0	0	0	0	0	0	0
MRV head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	7	0	0	0	0	0	0	0
CT complete spine without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	10	3	2	1	2	0	0	0	0
CT complete spine with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	10	3	2	1	2	0	0	0	0

Variant 3: Child. Recurrent ataxia with interval normal neurology examination. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
MRI head without IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	1	1	6	3	7

References	Study Quality
1 (28257643)	4
34 (28043238)	4
25 (22764177)	4

MRI head without and with IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	2	0	1	0	10	6	0	0	0

References	Study Quality
1 (28257643)	4
34 (28043238)	4
25 (22764177)	4

MR spectroscopy head without IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	1	0	1	1	14	2	0	0	0
CTA neck with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	3	3	8	1	2	2	3	1	1	0	0
CTA head and neck with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	7	1	4	2	2	1	1	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	2	2	6	11	1	0	0	0	1	0	0
MRA head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	7	9	3	0	0	0	0	0	0
MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	6	5	8	0	0	0	0	0	0
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	7	4	3	4	1	0	0	0	0
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	7	8	3	0	1	0	0	0	0
CTA head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	10	2	2	1	1	1	1	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	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	0	1	0	3	0	0	0	0
MRI complete spine without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	4	0	0	1	0	0	0	0
MRI complete spine without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	1	1	1	2	1	0	0	0
MRV head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	1	2	0	2	2	0	0	0

CTV 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
MRV head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	18	1	0	0	0	0	0	0	0
MRV head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	3	1	0	2	1	1	0	0
MRV head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	17	2	0	0	0	0	0	0	0
CT complete spine without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	17	0	1	0	0	0	0	0	0
CT complete spine without IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	16	0	2	0	0	0	0	0	0
CT complete spine with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	15	1	2	0	0	0	0	0	0

Variant 4: Child. Chronic progressive ataxia. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
MRI head without IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	1	0	3	6	8

References	Study Quality
41 (21701895)	3
46 (19631275)	2
45 (22764178)	4
4 (22595899)	4
39 (22816526)	4
42 (29922574)	3

		1 (28257643)	4												
		44 (27126632)	4												
		40 (20378176)	4												
		47 (30086112)	4												
		43 (27423800)	4												
		11 (27142713)	2												
		28 (26444039)	4												
		5 (23622410)	4												
		25 (22764177)	4												
MRI head without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	2	1	3	5	7
		References	Study Quality												
		41 (21701895)	3												
		46 (19631275)	2												
		45 (22764178)	4												
		4 (22595899)	4												
		39 (22816526)	4												
		42 (29922574)	3												
		1 (28257643)	4												
		44 (27126632)	4												
		40 (20378176)	4												
		47 (30086112)	4												
		43 (27423800)	4												
		11 (27142713)	2												
		28 (26444039)	4												
		5 (23622410)	4												
		25 (22764177)	4												
CT head without IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	5	5	1	0	0	2	13	2	1	0	0
		References	Study Quality												
		14 (26940752)	4												

		28 (26444039)		4												
MRI complete spine without IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	1	0	0	1	13	3	1	0	0
MRI complete spine without and with IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	1	0	0	0	15	3	0	0	0
CT head with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	3	3	6	3	2	2	3	2	0	0	0
		References		Study Quality											
		14 (26940752)		4											
		28 (26444039)		4											
CT head without and with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	8	2	1	1	4	2	0	0	0
		References		Study Quality											
		14 (26940752)		4											
		28 (26444039)		4											
MRA head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	8	3	1	2	2	2	0	0	0
MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	8	4	1	1	2	2	0	0	0
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	9	3	1	1	2	2	0	0	0
MR spectroscopy head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	7	3	2	0	7	0	0	0	0
CTA head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	11	1	1	2	2	1	0	0	0
CTA neck with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	1	1	11	1	1	2	2	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	11	1	1	2	2	1	0	0	0
MRV head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	3	0	0	2	2	0	0	0
CTV head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	13	1	0	2	2	0	0	0	0
MRV head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	0	0	1	2	0	0	0
MRV head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	3	0	1	3	1	0	0	0
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	3	1	0	2	1	0	0	0
MRV head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	0	0	1	2	0	0	0
CT complete spine without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	17	0	1	0	0	0	0	0	0
CT complete spine without IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	15	0	2	0	1	0	0	0	0
CT complete spine with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	15	1	2	0	0	0	0	0	0

Variant 5: Child. Chronic nonprogressive ataxia. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
MRI head without IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	1	0	0	1	3	13
		References		Study Quality											

		4 (22595899)	4												
		52 (27785688)	3												
		43 (27423800)	4												
		6 (26413479)	3												
		32 (19863638)	4												
		50 (26132530)	4												
CT head without IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	6	6	0	0	0	2	7	9	1	0	0
		References	Study Quality												
		14 (26940752)	4												
		28 (26444039)	4												
MRI complete spine without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	1	0	0	0	16	2	0	0	0
		References	Study Quality												
		44 (27126632)	4												
CT head with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	3	3	7	2	2	3	4	0	0	0	0
		References	Study Quality												
		14 (26940752)	4												
		28 (26444039)	4												
MRI head without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	5	5	2	0	6	0	1	0	0
		References	Study Quality												
		4 (22595899)	4												
		52 (27785688)	3												
		43 (27423800)	4												
		6 (26413479)	3												
		32 (19863638)	4												
		50 (26132530)	4												

MRI complete spine without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	5	5	3	5	1	0	0	0	0
	References		Study Quality												
	44 (27126632)		4												
CTA head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	11	3	1	1	1	1	0	0	0
CTA neck with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	1	1	11	2	2	1	1	1	0	0	0
CT head without and with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	10	2	2	2	2	0	0	0	0
	References		Study Quality												
	14 (26940752)		4												
	28 (26444039)		4												
CTA head and neck with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	11	3	1	0	2	1	0	0	0
MRA head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	3	1	1	2	1	0	0	0
MRA head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	3	1	0	2	2	0	0	0
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	3	1	1	2	1	0	0	0
MR spectroscopy head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	2	3	2	0	0	0	1	0
MRV head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	3	0	1	2	1	0	0	0
CTV head with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	13	1	1	0	2	1	0	0	0

MRV head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	0	0	1	2	0	0	0
MRV head and neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	3	0	0	3	1	0	0	0
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	3	1	0	2	1	0	0	0
MRV head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	3	0	0	1	2	0	0	0
CT complete spine without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	17	1	0	0	0	0	0	0	0
CT complete spine without IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	15	1	1	0	1	0	0	0	0
CT complete spine with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	16	2	0	0	0	0	0	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.**