

**American College of Radiology  
ACR Appropriateness Criteria®**

**Imaging of Facial Trauma Following Primary Survey**

**Variant 1: Tenderness to palpation or contusion or edema over frontal bone. Suspect frontal bone injury. Initial imaging following primary survey.**

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT maxillofacial without IV contrast	Usually appropriate	Limited	☼☼ 0.1-1mSv		9	9	0	0	1	0	0	0	1	3	14

References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4



CTA head and neck with IV contrast	Usually not appropriate	Strong	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	2	2	9	3	3	1	3	0	0	0	0
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References	Study Quality
66 (27893647)	2
27 (-3101271)	4
65 (16297680)	4
64 (15706217)	4
29 (31054754)	4
26 (29101988)	4
21 (24183372)	4
61 (22491644)	4
62 (11493789)	2
63 (12560700)	4
28 (-3194388)	4
25 (33958108)	4

CT head with IV contrast	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	1	1	12	3	1	1	1	0	1	0	0
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References	Study Quality
34 (29503015)	2
21 (24183372)	4
15 (23498333)	4
35 (18261526)	4
36 (1537220)	4
25 (33958108)	4

CT head without and with IV contrast	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	1	1	12	3	1	1	1	0	1	0	0
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References	Study Quality
34 (29503015)	2
21 (24183372)	4
15 (23498333)	4

		35 (18261526)		4														
		36 (1537220)		4														
		25 (33958108)		4														
CT maxillofacial with IV contrast	Usually not appropriate	Limited	☹☹ 0.1-1mSv		1	1	11	3	2	0	1	0	1	0	1			

References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4

CT maxillofacial without and with IV contrast	Usually not appropriate	Limited	☹☹☹ 1-10 mSv		1	1	10	5	2	0	0	0	1	0	1		
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References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4

44 (27761894)	4
21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4

CT cervical spine with IV contrast	Usually not appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	15	3	1	0	0	0	0	0	0
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References	Study Quality
51 (19509621)	2
29 (31054754)	4
20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4

CT cervical spine without and with IV contrast	Usually not appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	16	2	1	0	0	0	0	0	0
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References	Study Quality
51 (19509621)	2
29 (31054754)	4
20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4

Arteriography cervicocerebral	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	1	1	14	3	1	1	0	0	0	0	0
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References	Study Quality
71 (24355656)	3
72 (22695428)	3
27 (-3101271)	4
70 (24458034)	3
29 (31054754)	4
26 (29101988)	4
28 (-3194388)	4
25 (33958108)	4

MRA head and neck without IV contrast	Usually not appropriate	Strong	○ 0 mSv	○ 0 mSv [ped]	1	1	12	3	1	1	1	1	0	0	0
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References	Study Quality
66 (27893647)	2
69 (12435934)	1
27 (-3101271)	4
68 (18635617)	2
29 (31054754)	4



49 (20599085)	4
31 (30007759)	4
50 (21371800)	4
25 (33958108)	4

MRI cervical spine without IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	1	1	11	2	2	2	2	0	0	0	0
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References	Study Quality
29 (31054754)	4
58 (31783411)	4
7 (18090013)	2

MRI cervical spine without and with IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	1	1	13	4	1	1	0	0	0	0	0
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References	Study Quality
29 (31054754)	4
58 (31783411)	4
7 (18090013)	2

Radiography skull	Usually not appropriate	Limited	⊕ <0.1 mSv	⊕⊕ 0.03-0.3 mSv [ped]	1	1	10	1	2	3	1	1	1	0	0
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References	Study Quality
60 (20495486)	4
30 (30454777)	4
50 (21371800)	4
59 (19050539)	2

MRI cervical spine with IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	1	1	13	3	2	1	0	0	0	0	0
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References	Study Quality
29 (31054754)	4
58 (31783411)	4
7 (18090013)	2





Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT maxillofacial without IV contrast	Usually appropriate	Limited	☼☼ 0.1-1mSv		9	9	0	0	0	0	0	0	0	2	17

References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
21 (24183372)	4
22 (23322824)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
79 (24138736)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4
78 (2017492)	4

CT cervical spine without IV contrast	Usually not appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼☼ 3-10 mSv [ped]	3	3	7	1	4	0	5	0	1	1	0
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References	Study Quality
51 (19509621)	2
29 (31054754)	4

20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4

Radiography paranasal sinuses	Usually not appropriate	Limited	☼ <0.1 mSv	☼ <0.03 mSv [ped]	3	3	7	2	2	4	2	1	1	0	0
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References	Study Quality
30 (30454777)	4
15 (23498333)	4
50 (21371800)	4
2 (31345487)	4
81 (26266185)	2

CTA head and neck with IV contrast	Usually not appropriate	Moderate	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	2	2	9	2	2	2	4	0	0	0	0
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References	Study Quality
66 (27893647)	2
17 (23992776)	3
82 (20154559)	4
27 (-3101271)	4
65 (16297680)	4
64 (15706217)	4
29 (31054754)	4
26 (29101988)	4
21 (24183372)	4
61 (22491644)	4



CT maxillofacial with IV contrast	Usually not appropriate	Limited	☼☼ 0.1-1mSv		1	1	12	2	2	1	1	0	0	0	1
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References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
21 (24183372)	4
22 (23322824)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
79 (24138736)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4
78 (2017492)	4

CT maxillofacial without and with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv		1	1	11	3	2	1	1	0	0	0	1
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References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4

44 (27761894)	4
21 (24183372)	4
22 (23322824)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
79 (24138736)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4
78 (2017492)	4

CT cervical spine with IV contrast	Usually not appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	13	3	2	1	0	0	0	0	0
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References	Study Quality
51 (19509621)	2
29 (31054754)	4
20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4

CT cervical spine without and with IV contrast	Usually not appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	14	2	2	0	0	0	1	0	0
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References	Study Quality
51 (19509621)	2
29 (31054754)	4
20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4

Arteriography cervicocerebral	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	14	1	3	1	0	0	0	0	0
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References	Study Quality
71 (24355656)	3
72 (22695428)	3
27 (-3101271)	4
70 (24458034)	3
29 (31054754)	4
26 (29101988)	4
28 (-3194388)	4
25 (33958108)	4

MRA head and neck without IV contrast	Usually not appropriate	Strong	0 0 mSv	0 0 mSv [ped]	1	1	12	2	3	1	1	0	0	0	0
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References	Study Quality
66 (27893647)	2
69 (12435934)	1

27 (-3101271)	4
68 (18635617)	2
29 (31054754)	4
26 (29101988)	4
28 (-3194388)	4
25 (33958108)	4
67 (29025722)	4

MRA head and neck without and with IV contrast	Usually not appropriate	Strong	0 0 mSv	0 0 mSv [ped]	1	1	13	2	2	1	1	0	0	0	0
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References	Study Quality
66 (27893647)	2
69 (12435934)	1
27 (-3101271)	4
68 (18635617)	2
29 (31054754)	4
26 (29101988)	4
28 (-3194388)	4
25 (33958108)	4
67 (29025722)	4

MRI head without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	12	2	2	2	1	0	0	0	0
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References	Study Quality
8 (32224001)	2
2 (31345487)	4
25 (33958108)	4

MRI head without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	13	4	1	1	0	0	0	0	0
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References	Study Quality
8 (32224001)	2
2 (31345487)	4
25 (33958108)	4



MRI maxillofacial without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	14	4	1	0	0	0	0	0	0
		References	Study Quality												
		49 (20599085)	4												
		4 (29309356)	4												
		80 (26372709)	4												
		31 (30007759)	4												
		79 (24138736)	4												
		15 (23498333)	4												
		32 (22964407)	4												
		50 (21371800)	4												
MRI maxillofacial without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	13	4	0	0	0	1	1	0	0
		References	Study Quality												
		49 (20599085)	4												
		4 (29309356)	4												
		80 (26372709)	4												
		31 (30007759)	4												
		79 (24138736)	4												
		15 (23498333)	4												
		32 (22964407)	4												
		50 (21371800)	4												
MRI cervical spine without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	13	4	2	0	0	0	0	0	0
		References	Study Quality												
		29 (31054754)	4												
		58 (31783411)	4												
		7 (18090013)	2												
Radiography chest	Usually not appropriate	Limited	⊕ <0.1 mSv	⊕ <0.03 mSv [ped]	1	1	12	2	0	2	2	1	0	0	0



49 (20599085)	4
4 (29309356)	4
80 (26372709)	4
31 (30007759)	4
79 (24138736)	4
15 (23498333)	4
32 (22964407)	4
50 (21371800)	4

**Variant 3: Visible nasal deformity or palpable nasal deformity or tenderness to palpation of the nose or epistaxis. Suspect nasal injury. Initial imaging following primary survey.**

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT maxillofacial without IV contrast	Usually appropriate	Limited	☼☼ 0.1-1mSv		9	9	1	0	0	0	2	0	0	3	13

References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4

			15 (23498333)		4													
			45 (21617475)		4													
			46 (21111135)		4													
			2 (31345487)		4													
			93 (16633172)		4													
			95 (14707621)		4													
US maxillofacial	May be appropriate	Strong	0 0 mSv	0 0 mSv [ped]	5	5	0	0	1	8	9	0	0	0	0	1		
			References		Study Quality													
			90 (24986427)		2													
			89 (21808205)		2													
			38 (21377837)		4													
			85 (19470811)		2													
			86 (17179332)		4													
			87 (8648487)		4													
			88 (14648259)		2													
Radiography paranasal sinuses	May be appropriate	Strong	⊕ <0.1 mSv	⊕ <0.03 mSv [ped]	4	4	7	1	1	6	4	0	0	0	0			
			References		Study Quality													
			91 (18118920)		2													
			92 (3734598)		2													
			93 (16633172)		4													
			94 (8143411)		2													
CT head with IV contrast	Usually not appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕ 0.3-3 mSv [ped]	1	1	15	2	0	1	0	0	1	0	0			
CT head without IV contrast	Usually not appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕ 0.3-3 mSv [ped]	1	1	16	3	0	0	0	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	15	2	0	1	0	1	0	0	0			

CT maxillofacial with IV contrast	Usually not appropriate	Limited	☼☼ 0.1-1mSv		1	1	16	3	0	0	0	0	0	0	0
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References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4
93 (16633172)	4
95 (14707621)	4

CT maxillofacial without and with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv		1	1	16	3	0	0	0	0	0	0	0
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References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4

21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4
93 (16633172)	4
95 (14707621)	4

MRI maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	2	0	0	0	1	1	0	0
MRI maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	3	0	0	0	0	1	0	0
MRI maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	1	15	3	0	0	0	0	0	1	0

**Variant 4: Trismus or malocclusion or gingival hemorrhage or mucosal hemorrhage or loose teeth or fractured teeth or displaced teeth. Suspect mandibular injury. Initial imaging following primary survey.**

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT maxillofacial without IV contrast	Usually appropriate	Strong	⊕⊕ 0.1-1mSv		9	9	0	0	0	0	0	0	0	4	15

References	Study Quality
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40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
101 (28314422)	4
3 (25415101)	4
21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4
99 (15915103)	2
100 (11335803)	2
102 (16037795)	4
103 (11037164)	4

Radiography mandible	May be appropriate	Strong	☢☢ 0.1-1mSv		4	4	1	1	1	7	8	0	0	1	0
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References	Study Quality
42 (27618328)	4
101 (28314422)	4
110 (24183373)	4
111 (22538545)	4

31 (30007759)	4
99 (15915103)	2
102 (16037795)	4
106 (3462360)	4
107 (8199151)	4
108 (2231144)	4
109 (18272555)	2

CT head without IV contrast	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	3	3	7	1	3	1	5	2	0	0	0
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References	Study Quality
98 (29325790)	4
53 (19996802)	4
57 (21042121)	4
97 (1593318)	4
25 (33958108)	4

CT cervical spine without IV contrast	Usually not appropriate	Strong	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	3	3	7	1	3	1	5	1	0	1	0
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References	Study Quality
51 (19509621)	2
29 (31054754)	4
20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4
97 (1593318)	4



CT head with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	13	3	2	0	1	0	0	0	0
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References	Study Quality
98 (29325790)	4
53 (19996802)	4
57 (21042121)	4
97 (1593318)	4
25 (33958108)	4

CT head without and with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	15	1	2	0	1	0	0	0	0
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References	Study Quality
98 (29325790)	4
53 (19996802)	4
57 (21042121)	4
97 (1593318)	4
25 (33958108)	4

CTA head and neck with IV contrast	Usually not appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	10	1	1	3	4	0	0	0	0
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References	Study Quality
66 (27893647)	2
72 (22695428)	3
27 (-3101271)	4
65 (16297680)	4
64 (15706217)	4
29 (31054754)	4
26 (29101988)	4
9 (25086804)	4
21 (24183372)	4
61 (22491644)	4
62 (11493789)	2

63 (12560700)	4
105 (17656282)	2
112 (16456458)	2
28 (-3194388)	4
25 (33958108)	4

CT maxillofacial with IV contrast	Usually not appropriate	Strong	☼☼ 0.1-1mSv		1	1	11	2	2	0	2	0	1	1	0
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References	Study Quality
40 (29320322)	4
30 (30454777)	4
47 (28941512)	4
42 (27618328)	4
44 (27761894)	4
101 (28314422)	4
3 (25415101)	4
21 (24183372)	4
37 (22472677)	4
38 (21377837)	4
31 (30007759)	4
41 (29922866)	4
43 (29903561)	4
39 (28941507)	4
13 (27348349)	4
48 (25639172)	4
15 (23498333)	4
45 (21617475)	4
46 (21111135)	4
2 (31345487)	4
99 (15915103)	2
100 (11335803)	2
102 (16037795)	4



51 (19509621)	2
29 (31054754)	4
20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4
97 (1593318)	4

CT cervical spine without and with IV contrast	Usually not appropriate	Strong	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	1	1	16	1	1	1	0	0	0	0	0
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References	Study Quality
51 (19509621)	2
29 (31054754)	4
20 (29154774)	4
54 (31377860)	2
19 (27527678)	4
12 (27070668)	4
52 (23954483)	4
53 (19996802)	4
55 (19231780)	2
56 (3965740)	4
57 (21042121)	4
97 (1593318)	4

Arteriography cervicocerebral	Usually not appropriate	Strong	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	1	1	14	1	2	1	1	0	0	0	0
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References	Study Quality
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71 (24355656)	3
72 (22695428)	3
27 (-3101271)	4
70 (24458034)	3
29 (31054754)	4
26 (29101988)	4
9 (25086804)	4
105 (17656282)	2
112 (16456458)	2
28 (-3194388)	4
25 (33958108)	4

MRA head and neck without IV contrast	Usually not appropriate	Strong	0 0 mSv	0 0 mSv [ped]	1	1	12	1	2	1	3	0	0	0	0
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References	Study Quality
66 (27893647)	2
72 (22695428)	3
69 (12435934)	1
27 (-3101271)	4
68 (18635617)	2
29 (31054754)	4
26 (29101988)	4
9 (25086804)	4
105 (17656282)	2
112 (16456458)	2
28 (-3194388)	4
25 (33958108)	4
67 (29025722)	4

MRA head and neck without and with IV contrast	Usually not appropriate	Strong	0 0 mSv	0 0 mSv [ped]	1	1	12	1	2	1	3	0	0	0	0
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References	Study Quality
66 (27893647)	2

72 (22695428)	3
69 (12435934)	1
27 (-3101271)	4
68 (18635617)	2
29 (31054754)	4
26 (29101988)	4
9 (25086804)	4
105 (17656282)	2
112 (16456458)	2
28 (-3194388)	4
25 (33958108)	4
67 (29025722)	4

MRI head without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	13	3	0	1	1	0	1	0	0
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References	Study Quality
8 (32224001)	2
2 (31345487)	4
25 (33958108)	4

MRI head without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	16	2	0	0	0	1	0	0	0
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References	Study Quality
8 (32224001)	2
2 (31345487)	4
25 (33958108)	4

MRI maxillofacial without IV contrast	Usually not appropriate	Strong	0 0 mSv	0 0 mSv [ped]	1	1	13	2	1	2	1	0	0	0	0
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References	Study Quality
31 (30007759)	4
50 (21371800)	4
2 (31345487)	4
104 (17223310)	2



29 (31054754)	4
58 (31783411)	4
7 (18090013)	2

MRI head with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	1	1	16	2	0	0	0	1	0	0	0
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References	Study Quality
8 (32224001)	2
2 (31345487)	4
25 (33958108)	4

MRA head and neck with IV contrast	Usually not appropriate	Strong	0 0 mSv	0 0 mSv [ped]	1	1	11	1	3	1	3	0	0	0	0
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References	Study Quality
66 (27893647)	2
72 (22695428)	3
69 (12435934)	1
27 (-3101271)	4
68 (18635617)	2
29 (31054754)	4
26 (29101988)	4
9 (25086804)	4
105 (17656282)	2
112 (16456458)	2
28 (-3194388)	4
25 (33958108)	4
67 (29025722)	4

MRI maxillofacial with IV contrast	Usually not appropriate	Strong	0 0 mSv	0 0 mSv [ped]	1	1	14	1	2	0	0	1	0	1	0
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References	Study Quality
31 (30007759)	4
50 (21371800)	4
2 (31345487)	4



104 (17223310)	2
105 (17656282)	2

## **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](http://www.acr.org/ac).