# American College of Radiology ACR Appropriateness Criteria®

## Staging and Post-Therapy Assessment of Head and Neck Cancer

Variant 1: Suspected or diagnosed cancer of the oral cavity or oropharynx or hypopharynx or larynx or cancer of unknown primary of the head and neck. Initial staging.

ъ .	Appropriateness	COE	A L L DDI	D I DDI	D. d.	3.6.11			F	inal T	Гabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
CT neck with IV contrast	Usually appropriate	Strong	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	9	9	0	0	0	0	0	0	2	2	14

References	Study Quality
36 (28608737)	1
32 (30633558)	4
22 (32388410)	2
26 (33370639)	2
31 (27373806)	2
28 (30369373)	2
35 (31606761)	2
29 (32445627)	2
34 (27480073)	2
37 (30473166)	Good
33 (32152744)	Good
23 (26573595)	2
39 (26013025)	2
27 (22155255)	2
40 (22996710)	4
38 (25643834)	2
30 (26307809)	4

		25 (32554422)			1		1								
		` '			1		1								
FDG-PET/CT skull base to mid-thigh	Usually appropriate	24 (34087615) Strong	���� 10-30 mSv	���� 3- 10 mSv [ped]	8	8	0	0	0	1	1	2	4	3	7
		References		Study	Quality										
		49 (30768363)			2										
		50 (28600822)			2										
		36 (28608737)			1										
		35 (31606761)			2										
		37 (30473166)		C	lood										
		42 (31635765)			4										
		51 (32129894)			2										
		10 (28572489)			2		1								
		39 (26013025)			2		1								
		46 (23538049)		C	lood		_								
		48 (26490394)			2		_								
		47 (25131685)			2		1								
		17 (25405771)			2		_								
		38 (25643834)			2		1								
		45 (21470899)			2		1								
		44 (21637051)			2		1								
		43 (21861286)			2		<u> </u>		1					1	
MRI orbits face neck without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	0	0	1	9	4	4
		References		Study	Quality										
		26 (33370639)			2										
		31 (27373806)			2										
		29 (32445627)			2										
		34 (27480073)			2										
		59 (32949282)		C	lood										
		33 (32152744)		C	lood										

		61 (22877952)			4										
		60 (25197667)			2										
CT chest with IV contrast	May be appropriate	Strong	��� 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	6	6	0	0	0	0	7	3	6	1	1
		References		Study	Quality										
		20 (31005338)			4										
		15 (25239083)			4										
		19 (26350882)			2										
		21 (21232904)			2										
		11 (10718426)			2										
CT chest without IV contrast	May be appropriate	Strong	��� 1-10 mSv	<b>⊕⊕⊕⊕</b> 3- 10 mSv [ped]	5	5	0	0	0	4	6	3	4	1	0
		References		Study	Quality										
		20 (31005338)			4										
		15 (25239083)			4										
		19 (26350882)			2										
		21 (21232904)			2										
		11 (10718426)		1	2										
US neck	May be appropriate	Strong	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	2	7	6	2	0	0
		References		Study	Quality										
		63 (19688854)			2										
		64 (21674359)			2										
		62 (21604319)			4										
		65 (25150165)			2										
		69 (30227124)			2										
		68 (32792295)			2										
		67 (29362123)			4										
		51 (32129894)			2										
		66 (29496048)			2										

		72 (21050425)			2										
		72 (21958435)			2										
		70 (24436209)			1										
		73 (26224226)			2										
		47 (25131685)			2										
		71 (22039019)			2										
		25 (32554422)			1							1			
FDG-PET/MRI skull base to mid- thigh	May be appropriate	Strong	��� 1-10 mSv	���� 3- 10 mSv [ped]	5	5	1	0	2	1	10	3	0	1	0
		References		Study	Quality										
		52 (24649835)			4										
		57 (33247166)			2										
		58 (27922861)			2										
		42 (31635765)			4										
		56 (28129606)			2										
		53 (24924545)			2										
		54 (26243264)			2										
		55 (26498514)			4										
		44 (21637051)			2										
MRI orbits face neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	8	0	2	3	5	0	0	0	0
CT neck without IV contrast	Usually not appropriate	Expert Consensus	ଫେଫ 1-10 mSv	��� 0.3- 3 mSv [ped]	2	2	9	2	1	2	3	1	0	0	0
CTA neck with IV contrast	Usually not appropriate	Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	10	2	4	2	0	0	0	0	0
		References		Study	Quality										
		41 (32113152)			4										
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	15	2	0	0	0	0	0	0	1

CT head with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	<b>≎</b> ⊕ ⊕ 0.3- 3 mSv [ped]	1	1	13	2	0	3	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	2	0	1	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	14	2	0	1	1	0	0	0	0
CT maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	12	1	2	2	1	0	0	0	0
CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	<b>⊕⊕</b> 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	12	3	2	1	0	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	14	3	1	0	0	0	0	0	0
CT neck without and with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	12	3	1	0	0	0	1	0	1
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	1	0	0	0	0	0
MRA neck without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	1	0	0	0	0	0
MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	1	1	0	0	0	0	0
MRI head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	2	2	1	1	0	0	0	0
Radiography chest	Usually not appropriate	Strong	<b>⊕</b> <0.1 mSv		1	1	13	4	0	0	1	0	0	0	0

References		Study	Quality	
15 (25239083			4	
11 (10718426	5)		2	

		18 (10870751)			2		_								
Radiography paranasal sinuses	Usuall approp	Expert Consensus	<b>�</b> <0.1 mS		1	1	18	0	0	0	0	0	0	0	0
MRA neck with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	0	2	0	0	0	0	0
MRI head with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	3	1	1	0	0	0	0	0
MRI orbits face neck with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	1	0	0	0	1	0	0

Variant 2: Suspected or diagnosed nasopharynx cancer or EBV-associated unknown primary of the head and neck. Initial staging.

ъ	Appropri	ateness	COE	4 1 14 DD		D I DDI	D 4	3.6 11			F	inal '	[abu	latio	<b>1</b> S		
Procedure	Categ	gory	SOE	Adults RR	KL .	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
MRI orbits face neck without and with IV contrast	Usua approp		Strong	O 0 mSv	/	O 0 mSv [ped]	9	9	1	0	0	0	0	1	3	2	11
			References			Study	Quality										
			91 (24212004)				2										
			74 (33416977)				2										
			81 (30912815)				2										
			90 (23769923)				4										
			92 (26316564)				2										
			82 (18704401)				2										
CT neck with IV contrast	Usua approp		Strong	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	8	8	0	0	0	0	0	3	4	3	8
			References			Study	Quality										
			81 (30912815)				2										
			85 (31635767)				4										
			83 (25348201)			C	Good										

			82 (18704401)			2										
			84 (11130825)			2			1	I	ı					
FDG-PET/CT skull base to mid-thigh	Usua approp		Strong	���� 10-3 mSv	❤️❤️❤ 3- 10 mSv [ped]	8	8	0	0	0	0	1	0	6	4	7
			References		Study	Quality										
			87 (17873135)			2										
			88 (24283555)		Not A	Assessed										
			74 (33416977)			2										
			85 (31635767)			4										
			83 (25348201)		C	Good										
			17 (25405771)			2										
			82 (18704401)			2										
			84 (11130825)			2										
FDG-PET/MRI skull base to midthigh	Usua approp		Strong	��� 1-10 mSv	���� 3- 10 mSv [ped]	7	7	1	0	0	0	2	1	9	4	1
			References		Study	Quality										
			86 (31746412)			2										
			53 (24924545)			2										
			89 (29502310)			2										
CT chest with IV contrast	May approp		Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	6	6	0	0	0	0	7	4	5	1	1
			References		Study	Quality										
			15 (25239083)			4										
CT chest without IV contrast	May approp		Limited	��� 1-10 mSv	\$\$\$\$ 3- 10 mSv [ped]	5	5	0	0	0	4	7	3	3	1	0
			References		Study	Quality										
			15 (25239083)			4										
CT maxillofacial with IV contrast	May approp (Disagre	oriate	Expert Opinion	�� 0.1-1mS	999 0.3- 3 mSv [ped]	5	5	0	2	0	4	8	2	0	2	0

CT maxillofacial without IV contrast	May b appropri (Disagreer	iate	Expert Opinion	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	5	5	3	0	0	4	8	3	0	0	0
MRI head without and with IV contrast	May b appropri		Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	1	0	1	2	11	2	0	0	1
US neck	May b appropri		Strong	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	2	10	3	2	0	0
			References		Study	y Quality										
			63 (19688854)			2										
			64 (21674359)			2										
			62 (21604319)			4										
			65 (25150165)			2										
			93 (24764338)			2										
			47 (25131685)			2										
CT neck without IV contrast	Usually appropri		Expert Consensus	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	2	2	9	3	2	0	2	2	0	0	0
CTA neck with IV contrast	Usually appropri		Limited	��� 1-10 mSv	<b>\$\$\$</b> 0.3- 3 mSv [ped]	1	1	11	1	4	2	0	0	0	0	0
			References		Study	y Quality			•		•	•	•			
			41 (32113152)			4										
CT chest without and with IV contrast	Usually appropri		Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	15	0	2	0	0	0	0	0	1
CT head with IV contrast	Usually appropri		Expert Consensus	<b>≎≎≎</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	12	2	2	0	0	1	1	0	0
CT head without IV contrast	Usually appropri		Expert Consensus	<b>≎⊕⊕</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	15	1	1	0	0	1	0	0	0
CT head without and with IV contrast	Usually appropri		Expert Consensus	<b>≎≎≎</b> 1-10 mSv	���� 3- 10 mSv [ped]	1	1	13	1	1	1	0	1	0	1	0

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CT maxillofacial without and with IV contrast	Usuall	Expert Consensus	��� 1-10 mSv		1	1	14	2	2	0	0	0	0	0	0
CT neck without and with IV contrast	Usuall approp	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	9	1	1	13	2	1	0	0	0	1	0	1
MRA neck without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	3	0	1	0	0	0	0	0
MRA neck without and with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	3	0	1	0	0	0	0	0
MRI head without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	0	1	0	1	0	0	0
Radiography chest	Usuall approp	Strong			1	1	11	1	2	1	1	1	1	0	0
		References		Study	Quality										
		15 (25239083)			4										
		11 (10718426)			2										
		18 (10870751)			2		_	•							
Radiography paranasal sinuses	Usuall approp	Expert Consensus	<b>≎</b> <0.1 mS	v <0.03 v mSv [ped]	1	1	18	0	0	0	0	0	0	0	0
MRI orbits face neck without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	4	3	1	0	0	0	0	0
MRA neck with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	3	1	1	0	0	0	0	0
MRI head with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	0	1	1	0	0	1	0
MRI orbits face neck with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	3	0	0	0	0	0	0	1

Variant 3: Suspected or diagnosed cancer of the paranasal sinuses or nasal cavity. Initial staging.

ъ .	Appropriateness	COF	A L L DDI	D I DDI	D (1	37.11			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 face neck without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	3	2	13
		References		Study	Quality										
		104 (31529977)	)		4										
		103 (32608548)	)		2										
		105 (25698188)	)		2										
		96 (26476381)			4										
CT neck with IV contrast	Usually appropriate	Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	8	8	0	0	0	0	2	0	5	4	7
		References		Study	Quality										
		99 (26830408)		4											
		96 (26476381)		4											
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	���⊕ 10-30 mSv	���� 3- 10 mSv [ped]	8	8	0	0	0	1	2	1	5	2	7
		References		Study	Quality										
		100 (21713453)	)		4										
		49 (30768363)			2										
		37 (30473166)		C	Good										
		42 (31635765)			4										
		85 (31635767)			4										
		101 (7562038)			2										
		102 (16343913)	)		2										
CT chest with IV contrast	May be appropriate	Strong	��� 1-10 mSv	<b>♀♀♀</b> 3- 10 mSv [ped]	6	6	0	0	0	0	9	5	2	1	1
		References		Study	Quality										
		20 (31005338)			4										
		15 (25239083)			4										

		19 (26350882)	)		2										
		21 (21232904)	)		2										
		11 (10718426)	)		2										
CT maxillofacial with IV contrast	May be appropriate	Expert Consensus	�� 0.1-1mS	v 999 0.3- v 3 mSv [ped]	6	6	0	0	0	1	8	6	0	2	1
CT chest without IV contrast	May be appropriate	Strong	��� 1-10 mSv	���� 3- 10 mSv [ped]	5	5	0	0	1	2	9	4	1	1	0
		References		Study	Quality										
		20 (31005338)	)		4										
		15 (25239083)	)		4										
		19 (26350882)	)		2										
		21 (21232904)		2											
		11 (10718426)		2											
CT maxillofacial without IV contrast	May be appropriate (Disagreement)	Expert Opinion	�� 0.1-1mS	v 999 0.3- v 3 mSv [ped]	5	5	1	1	1	2	7	4	1	1	0
MRI head without and with IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	0	2	1	2	9	3	0	1	0
US neck	May be appropriate	Strong	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	1	12	3	1	0	0
		References		Study	Quality										
		63 (19688854)	)		2										
		64 (21674359)	)		2										
		62 (21604319)	)		4										
		65 (25150165)	)		2										
		47 (25131685)			2										
FDG-PET/MRI skull base to mid- thigh	May be appropriate	Strong	��� 1-10 mSv	���� 3- 10 mSv [ped]	5	5	1	0	1	1	9	5	0	1	0
		References	Study	Quality											
		52 (24649835)		4											

57 (33247166)	2
42 (31635765)	4
56 (28129606)	2
53 (24924545)	2
54 (26243264)	2

CT neck without IV contrast	Usuall approp	Expert Consensus	��� 1-1 mSv	0	2	2	9	1	2	2	2	1	1	0	0
CTA neck with IV contrast	Usuall approp	Limited	��� 1-1 mSv	0	1	1	13	1	3	1	0	0	0	0	0
		References		Stu	dy Quality										
		41 (32113152)			4										
CT chest without and with IV contrast	Usuall approp	Expert Consensus	��� 1-1 mSv	0 ���� 3- 10 mSv [ped]	1	1	14	1	2	0	0	0	0	0	1
CT head with IV contrast	Usuall approp	Expert Consensus	��� 1-1 mSv	0	1	1	12	1	1	2	1	0	1	0	0
CT head without IV contrast	Usuall approp	Expert Consensus	��� 1-1 mSv	0	1	1	15	1	1	0	0	1	0	0	0
CT head without and with IV contrast	Usuall approp	Expert Consensus	��� 1-1 mSv	0 ���� 3- 10 mSv [ped]	1	1	14	1	0	2	0	0	0	1	0
CT maxillofacial without and with IV contrast	Usuall approp	Expert Consensus	��� 1-1 mSv	0	1	1	12	2	0	1	2	0	1	0	0
CT neck without and with IV contrast	Usuall approp	Expert Consensus	��� 1-1 mSv	0 ���� 3- 10 mSv [ped]	1	1	13	1	2	0	0	0	1	0	1
MRA neck without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	1	0	0	0	0	0	0
MRA neck without and with IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	1	0	0	0	0	0	0

MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	0	0	1	1	0	1	0
Radiography chest	Usually not appropriate	ate Strong & Co. 1 mov			1	1	11	1	1	2	2	0	1	0	0
		References		Study	Quality										
		15 (25239083)			4										
		11 (10718426)			2										
		18 (10870751)			2										
Radiography paranasal sinuses	Usually not appropriate	Expert Consensus	<b>� &lt;</b> 0.1 mS	Sv	1	1	16	0	1	0	1	0	0	0	0
MRI orbits face neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	6	1	0	0	0	0	0	1
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	2	2	0	0	0	0	0	0
MRI head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	1	1	1	1	0	0	2	0
MRI orbits face neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	0	0	0	0	0	1

## Variant 4: Suspected or diagnosed cancer of a major salivary gland (parotid, submandibular, and sublingual glands). Initial staging.

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 face neck without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	1	1	3	13

References	Study	Quality	·
112 (18337041)		4	
108 (27236737)		4	
107 (33866123)		4	

		106 (31327623)	)	G	ood										
		113 (25577417)			ood										
CT neck with IV contrast	Usually appropriate	Strong	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	8	8	0	0	0	0	0	3	4	3	8
		References		Study	Quality										
		112 (18337041)	)		4										
		108 (27236737)	)		4										
		107 (33866123)	)		4										
		106 (31327623)	)	G	ood										
		111 (22842859)	)		4										
		113 (25577417)	)	G	ood										
FDG-PET/CT skull base to mid- thigh	Usually appropriate	Limited	≎≎≎≎ 10-30 mSv	���� 3- 10 mSv [ped]	7	7	1	0	1	0	3	2	4	2	5
		References	Study	Quality											
		115 (27890182)	)		4										
		114 (31102059)	)		2										
		108 (27236737)	)		4										
		42 (31635765)			4										
		110 (31635766)	)		4										
CT chest with IV contrast	May be appropriate	Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	6	6	0	0	0	0	8	5	3	1	1
		References		Study	Quality										
		108 (27236737)	)		4										
		15 (25239083)			4										
CT chest without IV contrast	May be appropriate	Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	5	5	0	0	1	3	8	4	1	1	0
		References			Quality										
		108 (27236737)		4											

US neck	May approp	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	0	11	5	1	0	0
		References		Study	y Quality										
		116 (26224227)	)		3										
		112 (18337041)	)		4										
		108 (27236737)	)		4										
		107 (33866123)	)		4										
FDG-PET/MRI skull base to mid-thigh	May approp	Limited	<b>≎≎≎</b> 1-10 mSv	���� 3- 10 mSv [ped]	5	5	1	0	1	1	9	5	0	1	0
		References		Study	y Quality										
		110 (31635766)	)		4										
MRI orbits face neck without IV contrast	Usually approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	7	0	2	2	5	1	0	1	0
CTA neck with IV contrast	Usually approp	Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	12	1	3	2	0	0	0	0	0
	•	References		Study	y Quality										
		41 (32113152)			4										
CT chest without and with IV contrast	Usually approp	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	���� 3- 10 mSv [ped]	1	1	14	1	2	0	0	0	0	0	1
CT head with IV contrast	Usually approp	Expert Consensus	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	16	1	0	1	0	0	0	0	0
CT head without IV contrast	Usually approp	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	18	0	0	0	0	0	0	0	0
CT head without and with IV contrast	Usually approp	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	���� 3- 10 mSv [ped]	1	1	16	0	2	0	0	0	0	0	0
CT maxillofacial with IV contrast	Usually approp	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	9	1	3	2	2	1	0	0	0

CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	14	1	1	1	1	0	0	0	0
CT maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	16	1	1	0	0	0	0	0	0
CT neck without IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	10	1	3	1	3	0	0	0	0
CT neck without and with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	12	2	2	0	0	0	1	0	1
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	1	0	0	0	0	0
MRA neck without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	1	0	0	0	0	0
MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	1	0	0	0	0	0
MRI head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	2	1	1	2	0	0	0	0
Radiography chest	Usually not appropriate	Strong	<b>≎</b> <0.1 mSv		1	1	11	1	2	2	1	0	1	0	0

References	Study Quality
15 (25239083)	4
11 (10718426)	2
18 (10870751)	2

Radiography paranasal sinuses	Usually not appropriate	Expert Consensus	<b>ᢒ</b> <0.1 mSv		1	1	18	0	0	0	0	0	0	0	0
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	1	1	0	0	0	0	0
MRI head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	1	1	0	0	0	0	1

MRI orbits face neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	0	0	0	0	1	
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Variant 5: Treated cancer of the oral cavity or oropharynx or hypopharynx or larynx or cancer of unknown primary of the head and neck. Surveillance imaging or follow-up imaging for suspected or known recurrence.

	Appropriateness	COF		mSv [ped] 9  Study Quality  2  4  4  2  4  2  4  2  10 mSv 8 [ped] 8  Study Quality  2  Good  2						F	inal	Tabı	ılatio	ns		
Procedure	Category	SOE	Adults RR		Peds KKL	Rating	Median	1	2	3	4	5	6	7	8	9
CT neck with IV contrast	Usually appropriate	Strong	��� 1-10 mSv	0	3 mSv	9	9	0	0	0	0	0	0	2	6	10
		References			Study	Quality										
		128 (29754496)	)			2										
		40 (22996710)				4										
		126 (25829083)	)			4										
		127 (25892275) 125 (21439046)				2										
		125 (21439046) 123 (21990217)				4										
						2										
		124 (10715030)				2		_								
FDG-PET/CT skull base to mid- thigh	Usually appropriate	124 (10715030)  Strong			10 mSv	8	8	0	0	0	0	0	1	5	4	8
		References			Study	Quality										
		128 (29754496)	)			2										
		129 (29478080)	)		C	food										
		135 (25716933)	)			2										
		19 (26350882)				2										
		130 (23639557)	)			2										
		119 (26188656)	)			2										
		133 (25169701)	)			2										
		126 (25829083)	)			4										
		132 (23817791)	)			4										

		117 (24149172)		2											
		127 (25892275)		2											
		136 (25917499)		2											
		131 (26315809)		2											
		118 (26715675)		4											
		134 (21665394)		2											
MRI orbits face neck without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	1	0	4	5	8
		References		Study Qua	ality										
		128 (29754496)		2											
		43 (21861286)		2											
		139 (20862388)		2											
CT chest with IV contrast	May be appropriate	Strong	��� 1-10 mSv	���� 3- 10 mSv [ped]	6	6	0	0	0	0	7	5	3	2	1
		References		Study Qua	ality										
		120 (26976351)		2											
		121 (30409312)		2											
		20 (31005338)		4											
		15 (25239083)		4											
		21 (21232904)		2											
FDG-PET/MRI skull base to mid-thigh	May be appropriate	Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	6	6	1	0	1	0	3	5	5	2	1
		References		Study Qua	ality										
		138 (29922943)		4											
		137 (25958189)		2											
CT chest without IV contrast	May be appropriate	Strong	��� 1-10 mSv	���� 3- 10 mSv [ped]	5	5	0	0	0	3	8	4	2	1	0
		References		Study Qua	ality										_
		120 (26976351)		2											
		122 (22520870)		2											

		121 (30409312)	)		2										
		20 (31005338)			4										
		15 (25239083)			4										
	1	21 (21232904)			2							1			
US neck	May approp	Strong	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	3	9	5	1	0	0
		References		Study	Quality										
		63 (19688854)			2										
		64 (21674359)			2										
		65 (25150165)			2										
		140 (28638103)	)		2										
		47 (25131685)			2										
		141 (22201409)	)		4		_								
MRI orbits face neck without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	7	1	2	2	4	2	0	0	0
CTA neck with IV contrast	Usuall approp	Limited	��� 1-10 mSv	0	1	1	11	1	3	1	0	1	1	0	0
		References		Study	Quality										
		41 (32113152)			4										
CT chest without and with IV contrast	Usuall approp	Expert Consensus	<b>發發</b> 發 1-10 mSv	0	1	1	13	2	0	1	0	0	1	1	0
CT head with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	1	1	15	1	1	1	0	0	0	0	0
CT head without IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	1	1	17	1	0	0	0	0	0	0	0
CT head without and with IV contrast	Usuall approp	Expert Consensus	��� 1-10 mSv	0	1	1	13	3	1	0	1	0	0	0	0

CT maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	11	3	2	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	14	2	0	2	0	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	2	1	0	0	0	0	0	0
CT neck without IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	10	1	1	1	3	0	2	0	0
CT neck without and with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	13	1	2	0	0	0	1	1	0
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	0	1	1	0	0	0	0
MRA neck without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	2	0	1	0	0	1	0	0
MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	0	1	0	0	0
MRI head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	1	0	1	0	0	1	0
Radiography chest	Usually not appropriate	Strong	<b>≎</b> <0.1 mSv		1	1	13	4	0	0	1	0	0	0	0
		References		Study	Ouality										

References	Study Quality
15 (25239083)	4
11 (10718426)	2
18 (10870751)	2

Radiography paranasal sinuses	Usually not appropriate	Expert Consensus	<b>⊕</b> <0.1 mSv		1	1	17	1	0	0	0	0	0	0	0
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	1	1	0	0	1	0	0

MRI head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	3	0	1	0	0	0	1	0
MRI orbits face neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	0	0	0	0	0	1

Variant 6: Treated nasopharynx cancer or EBV-associated unknown primary of the head and neck. Surveillance imaging or follow-up imaging for suspected or known recurrence.

P 1	Appropriateness	COL	A L L DDI	D I DDI	D (1	3.6.19			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 face neck without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	2	4	12
		References		Study	Quality										
		148 (30578604	)		4										
		143 (26547126	)	C	Good										
		142 (23937825) 145 (16622711) 146 (16954552)			4										
		145 (16622711) 146 (16954552)			2										
		146 (16954552)	)		2		_								
CT neck with IV contrast	Usually appropriate	Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	8	8	2	0	0	0	0	3	3	5	5
		References		Study	Quality										
		144 (21777548	)		2										
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	���� 10-30 mSv	���� 3- 10 mSv [ped]	8	8	0	0	0	0	0	1	4	5	8
		References		Study	Quality										
		87 (17873135)			2										
		88 (24283555)		Not A	Assessed										
		148 (30578604	)		4										
		149 (23715831	)		2										
		75 (25055290)			4										

			143 (26547126)	)		G	lood										
			90 (23769923)				4										
			136 (25917499)				2										
			82 (18704401)				2										
			145 (16622711)				2										
			146 (16954552)	)			2										
			147 (21501441)	)			4										
FDG-PET/MRI skull base to mid-thigh	Usua approp		Limited	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	7	7	1	0	0	0	4	1	6	4	2
			References			Study	Quality										
			138 (29922943)	)		_	4										
			137 (25958189)	)			2										
CT chest with IV contrast	May approp		Limited	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	6	6	0	0	0	0	8	4	4	1	1
			References			Study	Quality										
			15 (25239083)				4										
CT chest without IV contrast	May approp		Limited	��� 1-10 mSv	0	���� 3- 10 mSv [ped]	5	5	0	0	0	3	8	4	2	1	0
			References			Study	Quality										
			15 (25239083)				4										
CT maxillofacial with IV contrast	May approp (Disagree	riate	Expert Opinion	�� 0.1-1m	ıSv	��� 0.3- 3 mSv [ped]	5	5	0	2	0	2	8	4	1	1	0
CT maxillofacial without IV contrast	May approp (Disagree	riate	Expert Opinion	�� 0.1-1m	ıSv	��� 0.3- 3 mSv [ped]	5	5	3	0	0	3	8	3	0	1	0
MRI head without and with IV contrast	May approp		Expert Consensus	O 0 mSv	′	O 0 mSv [ped]	5	5	1	0	2	1	9	5	0	0	0
US neck	May approp		Strong	O 0 mSv	′	O 0 mSv [ped]	5	5	0	0	0	2	11	4	1	0	0
			References			Study	Quality										

63 (19688854)	2
64 (21674359)	2
65 (25150165)	2
140 (28638103)	2
47 (25131685)	2

			<del>+</del> 7 (23131003)													
CTA neck with IV contrast	Usuall approp		Limited	��� 1-10 mSv	0	1	1	10	1	4	1	1	1	0	0	0
			References		Study	y Quality										
			41 (32113152)			4										
CT chest without and with IV contrast	Usuall approp		Expert Consensus	��� 1-10 mSv	0	1	1	14	1	2	0	0	0	0	1	0
CT head with IV contrast	Usuall approp		Expert Consensus	��� 1-1( mSv	0	1	1	13	3	0	1	0	0	1	0	0
CT head without IV contrast	Usuall approp		Expert Consensus	��� 1-1( mSv	0	1	1	15	3	0	0	0	0	0	0	0
CT head without and with IV contrast	Usuall approp		Expert Consensus	<b>≎≎≎</b> 1-10 mSv	0	1	1	14	1	1	0	1	0	1	0	0
CT maxillofacial without and with IV contrast	Usuall approp		Expert Consensus	��� 1-10 mSv	0	1	1	14	3	1	0	0	0	0	0	0
CT neck without IV contrast	Usuall approp		Expert Consensus	<b>ॐॐ</b> 1-10 mSv	0	1	1	10	2	1	1	2	1	1	0	0
CT neck without and with IV contrast	Usuall approp	ly not priate	Expert Consensus	��� 1-10 mSv	0	1	1	13	1	3	0	0	0	1	0	0
MRA neck without IV contrast	Usuall approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	1	0	0	0	0
MRA neck without and with IV contrast	Usuall approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	2	0	0	2	0	0	0	0

MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	2	0	0	1	0	0	0
Radiography chest	Usually not appropriate	Strong	<b>≎</b> <0.1 m§		1	1	13	3	1	0	1	0	0	0	0
		References		Study	y Quality										
		15 (25239083)	ı		4										
		11 (10718426)	l		2										
		18 (10870751)	l,		2										
Radiography paranasal sinuses	Usually not appropriate	Expert Consensus	<b>⊕</b> <0.1 mS		1	1	18	0	0	0	0	0	0	0	0
MRI orbits face neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	0.0 mSv	1	1	10	4	3	0	0	0	0	0	1
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	1	0	2	0	0	0	0
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	1	1	0
MRI orbits face neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	0	0	0	0	0	1

## Variant 7: Treated cancer of the paranasal sinuses or nasal cavity. Surveillance imaging or follow-up imaging for suspected or known recurrence.

ъ 1	Appropriateness	COE	A L L DDI	D I DDI	D 4	3.6 11			F	inal [	Гаbu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
MRI orbits face neck without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	9	9	0	0	1	0	1	0	2	3	11

References	Study Quality
104 (31529977)	4
103 (32608548)	2
105 (25698188)	2

		96 (26476381)			4										
CT neck with IV contrast	Usually appropriate	Limited	<b>���</b> 1-10 mSv	0	8	8	0	0	0	0	2	2	3	3	8
		References		Stud	y Quality	•									
		96 (26476381)			4										
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	<b>≎≎≎≎</b> 10∹ mSv	30	8	8	0	0	0	0	0	1	5	4	8
		References		Stud	y Quality										
		150 (21925763)	)		4										
		117 (24149172)	)		2										
		136 (25917499)	)		2										
		118 (26715675)	)		4										
		134 (21665394)	)		2										
		102 (16343913)	)		2										
		151 (18486742)	)		4			,				1		,	
CT chest with IV contrast				<b>.</b>											
2 - Mass Mars Contains	May be appropriate	Strong	��� 1-10 mSv	10 mSv [ped]	6	6	0	0	0	0	9	4	3	1	1
2 - 511535	May be appropriate	Strong References		10 mSv [ped]	6 y Quality	6	0	0	0	0	9	4	3	1	1
	May be appropriate		mSv	10 mSv [ped]		6	0	0	0	0	9	4	3	1	1
2 - Sheda Han 2 - Contrado	May be appropriate	References	mSv	10 mSv [ped]	y Quality	6	0	0	0	0	9	4	3	1	1
2 - Sheat was 2 - Continuo	May be appropriate	References 120 (26976351)	mSv	10 mSv [ped]	y Quality 2	6	0	0	0	0	9	4	3	1	1
	May be appropriate	References 120 (26976351) 122 (22520870)	mSv	10 mSv [ped]	y Quality 2 2	6	0	0	0	0	9	4	3	1	1
	May be appropriate	References 120 (26976351) 122 (22520870) 121 (30409312)	mSv	10 mSv [ped]	y Quality 2 2 2 2	6	0	0	0	0	9	4	3	1	1
CT chest with IV contrast	May be appropriate  May be appropriate	References 120 (26976351) 122 (22520870) 121 (30409312) 15 (25239083)	mSv	10 mSv [ped] Stud	y Quality 2 2 2 4	5	0	0	0	3	9	4	1	1	0
	appropriate  May be	References 120 (26976351) 122 (22520870) 121 (30409312) 15 (25239083) 21 (21232904)	mSv	10 mSv [ped] Stud	y Quality 2 2 2 4 2										
	appropriate  May be	References 120 (26976351) 122 (22520870) 121 (30409312) 15 (25239083) 21 (21232904) Strong	mSv	10 mSv [ped] Stud	y Quality 2 2 2 4 2										
	appropriate  May be	References 120 (26976351) 122 (22520870) 121 (30409312) 15 (25239083) 21 (21232904) Strong References	mSv	10 mSv [ped] Stud	y Quality 2 2 2 4 2 5 y Quality										
	appropriate  May be	References 120 (26976351) 122 (22520870) 121 (30409312) 15 (25239083) 21 (21232904) Strong References 120 (26976351)	mSv	10 mSv [ped] Stud	y Quality 2 2 4 2 y Quality 2 y Quality 2										

			21 (21232904)			2										
CT maxillofacial with IV contrast	May approp		Expert Consensus	�� 0.1-1mS	\$v	5	5	0	0	0	3	7	6	0	2	0
CT maxillofacial without IV contrast	May approp		Expert Consensus	�� 0.1-1mS	\$\pi \pi \pi \pi \pi \pi \pi \pi \pi \pi	5	5	2	0	2	1	7	5	0	1	0
MRI head without and with IV contrast	May approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	1	1	1	2	9	3	0	0	1
US neck	May approp	be oriate	Strong	O 0 mSv	O 0 mSv [ped]	5	5	2	0	0	2	9	4	1	0	0
			References		Study	y Quality										
			63 (19688854)			2										
			64 (21674359)			2										
			65 (25150165)			2										
			140 (28638103)	)		2										
			47 (25131685)			2										
FDG-PET/MRI skull base to mid- thigh	May approp		Limited	��� 1-10 mSv	ଡେଡେଡେ 3- 10 mSv [ped]	5	5	1	0	1	0	8	7	0	1	0
			References		Study	y Quality										
			138 (29922943)	)		4										
			137 (25958189)	)		2					_					
MRI orbits face neck without IV contrast	Usuall approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	9	4	3	0	0	0	0	1	1
CTA neck with IV contrast	Usuall approp		Limited	��� 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	11	2	2	1	2	0	0	0	0
			References		Study	y Quality										
			41 (32113152)			4										
CT chest without and with IV contrast	Usuall approp		Expert Consensus	��� 1-10 mSv	���� 3- 10 mSv [ped]	1	1	14	2	1	0	0	0	0	1	0

CT head with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	0	1	1	12	2	1	2	0	0	1	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	0	1	1	15	2	1	0	0	0	0	0	0
CT head without and with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	0	1	1	14	1	1	0	0	1	1	0	0
CT maxillofacial without and with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	0	1	1	14	2	0	0	1	0	1	0	0
CT neck without IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	0	1	1	10	1	2	2	1	0	2	0	0
CT neck without and with IV contrast	Usually not appropriate	Expert Consensus	��� 1-10 mSv	0	1	1	13	2	1	0	1	0	1	0	0
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	1	0	0	0	0
MRA neck without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	2	0	0	2	0	0	0	0
MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	1	0	1	0	1	0	0	0
Radiography chest	Usually not appropriate	Strong	<b>� &lt;</b> 0.1 mS		1	1	15	2	0	0	1	0	0	0	0
		References		Stud	y Quality										
		15 (25239083)			4										
		11 (10718426)		2											
		18 (10870751)			2										
Radiography paranasal sinuses	Usually not appropriate	Expert Consensus	<b>⊕</b> <0.1 mS	Sv	1	1	17	0	0	0	1	0	0	0	0

MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	2	0	0	2	0	0	0	0
MRI head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	1	0	2	0	0	0	1	0
MRI orbits face neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	3	0	0	0	0	0	0	1

Variant 8: Treated cancer of a major salivary gland (parotid, submandibular, and sublingual glands). Surveillance imaging or follow-up imaging for suspected or known recurrence.

D 1	Appropriateness	COE	4 1 14 DD	.	n i nni	D 4	3.6.11			I	inal	Tabu	latio	ns		
Procedure	Category	SOE	Adults RR	aL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
MRI orbits face neck without and with IV contrast	Usually appropriate	Limited	O 0 mSv	,	O 0 mSv [ped]	9	9	0	2	0	0	0	0	2	1	13
		References			Study	Quality										
		108 (27236737)	)			4										
CT neck with IV contrast	Usually appropriate	Limited	��� 1-10 mSv	0	��� 0.3- 3 mSv [ped]	8	8	1	0	0	0	0	1	5	4	7
		References			Study	Quality										
		112 (18337041)	)			4										
		108 (27236737)	)			4										
		107 (33866123)	)			4										
		111 (22842859)	)			4										
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	���� 10- mSv	30	���� 3- 10 mSv [ped]	8	8	0	0	1	1	3	0	4	2	7
		References			Study	Quality										
		114 (31102059)	)			2										
		108 (27236737)	)			4										
		110 (31635766)	)			4										
		153 (24900119)	)			2										

CT chest with IV contrast	May be appropriate	Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	6	6	0	0	0	0	9	4	3	1	1
		References		Study	y Quality										
		15 (25239083)			4										
CT chest without IV contrast	May be appropriate	Limited	��� 1-10 mSv	���� 3- 10 mSv [ped]	5	5	0	0	0	3	9	4	2	0	0
		References		Study	y Quality										
		15 (25239083)			4										
US neck	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	2	11	4	1	0	0
		References		Study Quality											
		112 (18337041)	)	Study Quality 4											
		108 (27236737)	)		4										
FDG-PET/MRI skull base to mid- thigh	May be appropriate	Strong	��� 1-10 mSv	4 4 20 1-10			1	0	0	0	10	6	0	1	0
		References		Study	y Quality		·								
		152 (30548894)	)		2										
		154 (25841279)	)		4										
		137 (25958189)			2										
Radiography chest	Usually not appropriate	Strong	<b></b> <0.1 mSv		2	2	8	4	2	0	2	1	1	0	0
		References		Study	y Quality										
		15 (25239083)			4										
		11 (10718426)			2										
		18 (10870751)		2 2											
CTA neck with IV contrast	Usually not appropriate	Limited	��� 1-10 mSv	⊕⊕ 1-10			10	2	2	2	2	0	0	0	0
		References		Study	y Quality										
		41 (32113152)			4										

CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	≎≎≎ 1-10 mSv	���� 3- 10 mSv [ped]	1	1	15	1	1	0	0	0	0	1	0
CT head with IV contrast	Usually not appropriate	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	14	1	0	1	2	0	0	0	0
CT head without IV contrast	Usually not appropriate	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	16	1	0	1	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	14	2	0	0	2	0	0	0	0
CT maxillofacial with IV contrast	Usually not appropriate	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	10	2	2	1	1	2	0	0	0
CT maxillofacial without IV contrast	Usually not appropriate	Expert Consensus	�� 0.1-1mSv	��� 0.3- 3 mSv [ped]	1	1	14	1	2	1	0	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	14	3	0	0	1	0	0	0	0
CT neck without IV contrast	Usually not appropriate	Expert Consensus	<b>≎≎≎</b> 1-10 mSv	��� 0.3- 3 mSv [ped]	1	1	12	4	1	0	0	0	0	0	1
CT neck without and with IV contrast	Usually not appropriate	Expert Consensus	<del>ଡିଡିଡି</del> 1-10 mSv	���� 3- 10 mSv [ped]	1	1	13	1	2	0	0	0	1	1	0
MRA neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	3	0	0	1	0	0	0	0
MRA neck without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	2	0	0	2	0	0	0	0
MRI head without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	15	2	0	0	1	0	0	0	0
MRI head without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	2	2	0	3	1	0	0	0

Radiography paranasal sinuses	Usually not appropriate	Expert Consensus	<b>≎</b> <0.1 mSv		1	1	17	1	0	0	0	0	0	0	0
MRI orbits face neck without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	3	3	0	1	0	0	0	0
MRA neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	1	0	2	0	0	0	0
MRI head with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	2	0	2	0	1	0	0	0
MRI orbits face neck with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	16	1	0	0	0	0	0	0	1

### **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.