American College of Radiology ACR Appropriateness Criteria[®]

Imaging of Ductal Carcinoma in Situ (DCIS)

Variant 1: Adult. Newly diagnosed DCIS. Initial imaging.

	Appropri	iateness	205							I	Final	Tab	ulatio	ns		
Procedure	Appropri Categ	gory	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Mammography diagnostic	Usua approp	ully priate	Strong	֎֎ 0.1-1mSv		9	9	0	0	0	0	1	0	0	2	11
			References		Study	y Quality										
			48 (17693177)			2										
			52 (15486214)			3										
			40 (15797293)			4										
			43 (27411945)			3										
			39 (23370209)			3										
			44 (30466027)			3										
			46 (25599513)			2										
			3 (23774990)			3										
			36 (23826951)			3										
			47 (33242249)			1										
			35 (2536185)			4										
			37 (2549563)			4										
			38 (8109501)			4										
			41 (8191988)			3										
			42 (14684521)			4										
			45 (23963140)		(Good										

Digital breast tomosynthesis diagnostic	Usually appropriate	Strong	ତତ 0.1-1mSv		9	9	0	0	0	0	1	0	0	1	12
		References		Study	/ Quality	•				•		•			
		48 (17693177)			2										
		40 (15797293)			4										
		43 (27411945)			3										
		39 (23370209)			3										
		44 (30466027)			3										
		46 (25599513)			2										
		3 (23774990)			3		-								
		36 (23826951)			3		-								
		47 (33242249)			1		-								
		35 (2536185)			4		-								
		37 (2549563)			4		-								
		38 (8109501)			4		-								
		41 (8191988)			3		-								
		42 (14684521)			4		-								
		45 (23963140)			Good	1		1	1						
MRI breast without and with IV contrast	May be appropriate	Strong	O 0 mSv	O 0 mSv [ped]	6	6	1	0	0	1	4	3	2	2	1
		References		Study	/ Quality										
		66 (20956821)			4										
		48 (17693177)			2										
		58 (28750354)			2										
		73 (20217259)			3										
		69 (22517955)			3										
		67 (34342501)			1		-								
		59 (29139591)			3		-								
		71 (25919321)		(Good		-								
		60 (24108552)			4		-								
		64 (9377507)			4										

							_								
		65 (19864520)			4										
		68 (12734086)			3										
		70 (17443388)			3										
		72 (19375068)			4										
		61 (9015067)			4										
		63 (18024450)			3										
		62 (17983393)			3										
US breast	May be appropriate	Strong	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	4	7	2	1	0	0
		References		Study	/ Quality	•			•						
		52 (15486214)			3										
		81 (34794600)			4										
		84 (33589308)			2										
		79 (28242086)			4										
		77 (23949917)			3										
		35 (2536185)			4										
		61 (9015067)			4										
		78 (-3196796)			4										
		80 (-3196797)			4										
		82 (19575283)			4										
		83 (26962097)			1			-							
Mammography with IV contrast	Usually not appropriate	Strong	≎≎ 0.1-1mS	Sv.	2	2	6	4	2	1	1	0	0	0	0
		References		Study	/ Quality										
		58 (28750354)			2										
		55 (27611215)			3										
		57 (27345656)			2										
		53 (34503181)			3										
		56 (30678480)			2										
		54 (-3196794)			3										

CT chest with IV contrast	Usuall approp	Limited	֎֎֎ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
		References		Study	v Quality										
		34 (-3196793)			4										
CT chest without IV contrast	Usuall approp	Limited	ତେତେ 1-10 mSv	ଡେଡେଡେ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
		References		Study	v Quality										
		34 (-3196793)			4										
CT chest without and with IV contrast	Usuall approp	Limited	֎֎֎ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
		References		Study	v Quality										
		34 (-3196793)			4			_							
MRI breast without IV contrast	Usuall approp	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
FDG-PET breast dedicated	Usuall approp	Strong	ତ®ତ 1-10 mSv		1	1	11	1	2	0	0	0	0	0	0
		References		Study	Quality			•							
		49 (11032590)			2										
		51 (31375867)			2										
		50 (28870933)			4										
		34 (-3196793)			4										
Sestamibi MBI	Usuall approp	Moderate	ତ®ତ 1-10 mSv		1	1	8	1	3	1	1	0	0	0	0
		References		Study	v Quality										
		76 (31166752)			3										
		74 (23151912)		C	Good										
		75 (22911882)			4										

Variant 2: Adult. Newly diagnosed DCIS. No surgical intervention. Active surveillance.

	Appropria	teness	~ ~ ~				_				F	'inal '	Tabu	latio	ıs		
Procedure	Catego		SOE	Adults RRL		ds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Digital breast tomosynthesis diagnostic	Usual appropr		Moderate	ଡଙ 0.1-1mି	Sv		9	9	0	0	0	0	1	0	4	2	7
			References			Study	Quality										
			86 (28705686)				4										
			87 (-3196799)				2										
Mammography diagnostic	Usual appropr		Moderate	֎֎ 0.1-1mS	Sv		8	8	0	0	1	0	0	0	6	0	7
			References			Study	Quality										
			86 (28705686)				4										
			88 (32125937)				3										
			87 (-3196799)				2		-			_					
MRI breast without and with IV contrast	May b appropr		Strong	O 0 mSv		0 mSv [ped]	5	5	0	0	0	2	6	1	2	3	0
			References			Study	Quality										
			58 (28750354)				2										
			88 (32125937)				3										
			67 (34342501)				1										
			71 (25919321)			G	lood										
			68 (12734086)				3										
			70 (17443388)				3										
			87 (-3196799)				2										
Mammography with IV contrast	Usually appropr		Expert Consensus	֎֎ 0.1-1mS	Sv		2	2	7	4	3	0	0	0	0	0	0
CT chest with IV contrast	Usually appropr		Expert Consensus	ତତତ 1-10 mSv	10	0000 3- 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without IV contrast	Usually appropr		Expert Consensus	ତତତ 1-10 mSv	10	0⊕⊕ 3- 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0

CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	ତତତ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
MRI breast without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
FDG-PET breast dedicated	Usually not appropriate	Expert Consensus	ଝେଝଝ 1-10 mSv		1	1	13	0	1	0	0	0	0	0	0
US breast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	2	1	1	0	0	0	0	0
Sestamibi MBI	Usually not appropriate	Expert Consensus	ଝେଝେଝ 1-10 mSv		1	1	12	1	1	0	0	0	0	0	0

Variant 3: Adult. Evaluation for local recurrence in patient with history of breast conservation therapy for DCIS. Routine surveillance.

	Appropriateness	COL			D.C				I	inal	Tabu	Iatio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Mammography screening	Usually appropriate	Limited	ତତ 0.1-1mSv		9	9	1	0	0	0	0	0	1	2	10
		References		Study	Quality										
		104 (25904721))		3										
		102 (24113745))		3										
		113 (22692036))		3										
		105 (29748762))		3										
		108 (29064749))		4										
		110 (27163158))		3										
		109 (31313678))		3										
		100 (23129741))		4										
		103 (24106867))		3										
		106 (20956827))		4										
		101 (28675577))		4										
		111 (32529566))		3										

		99 (36436961)			4										
		27 (-3196789)			4										
		89 (17579163)			3										
		90 (9016233)			4										
		107 (-3196801)			4							-			
Digital breast tomosynthesis diagnostic	Usually appropriate	Limited	&⊛ 0.1-1mS	v	9	9	0	0	0	0	3	0	0	4	7
		References		Study	y Quality										
		104 (25904721))		3										
		102 (24113745))		3										
		105 (29748762))		3										
		108 (29064749))		4										
		100 (23129741))		4										
		103 (24106867))		3										
		106 (20956827))		4										
		101 (28675577))		4										
		99 (36436961)			4										
		27 (-3196789)			4										
		89 (17579163)			3										
		90 (9016233)			4										
		107 (-3196801)			4							-			
Digital breast tomosynthesis screening	Usually appropriate	Limited	֎֎ 0.1-1mS	v	9	9	1	0	0	0	0	0	1	1	11
		References		Study	y Quality										
		104 (25904721))		3										
		102 (24113745))		3										
		105 (29748762))		3										
		108 (29064749))		4										
		110 (27163158))		3										
		109 (31313678))		3										
		100 (23129741))		4										

		103 (24106867))	3											
		106 (20956827))	4											
		101 (28675577))	4											
		111 (32529566))	3											
		99 (36436961)		4											
		27 (-3196789)		4											
		89 (17579163)		3											
		90 (9016233)		4											
		107 (-3196801))	4					1		1				
Mammography diagnostic	Usually appropriate	Strong	֎֎ 0.1-1mSv		8	8	0	0	1	0	2	0	0	5	6
		References		Study Q	uality										
		104 (25904721))	3											
		102 (24113745))	3											
		113 (22692036))	3											
		105 (29748762))	3											
		108 (29064749)		4											
		110 (27163158))	3											
		109 (31313678))	3											
		100 (23129741)		4											
		103 (24106867)		3											
		106 (20956827)		4											
		101 (28675577)		4											
		111 (32529566)		3											
		99 (36436961)		4											
		27 (-3196789)		4											
		89 (17579163)		3											
		112 (8511295)		2											
		90 (9016233)		4											
		107 (-3196801))	4											

MRI breast without and with IV contrast	May approp (Disagree	riate	Expert Opinion	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	4	6	0	2	2	0
			References		Study	y Quality										
			114 (-3196807)			4		-	-	-	-	-	-	-		
US breast	Usually approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	7	5	1	0	1	0	0	0	0
Mammography with IV contrast	Usually approp		Expert Consensus	ଝଙ 0.1-1mS v		2	2	3	6	4	0	1	0	0	0	0
CT chest with IV contrast	Usually approp		Expert Consensus	ବ୍ୟତ୍ତ 1-10 mSv	&&&& 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without IV contrast	Usually approp		Expert Consensus	ବେବତ 1-10 mSv	&&&& 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without and with IV contrast	Usually approp		Expert Consensus	ଷଷଷ 1-10 mSv	≎≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
MRI breast without IV contrast	Usually approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	13	1	0	0	0	0	0	0	0
FDG-PET breast dedicated	Usually approp		Expert Consensus	ଷଷଷ 1-10 mSv		1	1	13	0	0	0	1	0	0	0	0
Sestamibi MBI	Usually approp		Expert Consensus	ଷଷ≎ 1-10 mSv		1	1	11	0	1	0	2	0	0	0	0

Variant 4: Adult. Evaluation for ipsilateral local recurrence in a patient with history of mastectomy for DCIS. Routine surveillance.

	Appropriateness	COF			D (1				F	'inal '	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRI	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
CT chest with IV contrast	Usually not appropriate	Limited	ଝେଝ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
		References		Study	v Quality										

		100 (23129741)			4										
		121 (-3196803)			4										
		122 (-3196805)			4					-	-	1	1		1
CT chest without IV contrast	Usually not appropriate	Limited	ଡଡଡ 1-10 mSv	ଡଡଡଡଡ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
		References		Study	v Quality										
		100 (23129741))		4										
		121 (-3196803))		4										
		122 (-3196805))		4									-	
CT chest without and with IV contrast	Usually not appropriate	Limited	ତତତ 1-10 mSv	ତତତତ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
		References		Study	v Quality										
		100 (23129741))		4										
		121 (-3196803))		4										
		122 (-3196805))		4										
Mammography screening	Usually not appropriate	Expert Consensus	֎֎ 0.1-1mSv		1	1	12	2	0	0	0	0	0	0	0
MRI breast without IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
		References		Study	Quality										
		100 (23129741))		4										
		121 (-3196803))		4										
		122 (-3196805))		4										
MRI breast without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	10	3	0	1	0	0	0	0	0
		References		Study	Quality					-	-				
		100 (23129741))		4										
		123 (32374666))		4										
		121 (-3196803))		4										
		122 (-3196805))		4										

			114 (-3196807)				4										
FDG-PET breast dedicated	Usually approp		Expert Consensus	ତେତେ 1-1 mSv	0		1	1	13	0	1	0	0	0	0	0	0
US breast	Usuall ₂ approp	y not oriate	Limited	O 0 mS\	v	O 0 mSv [ped]	1	1	11	2	0	1	0	0	0	0	0
			References			Study	Quality										
			124 (23131395))			3			-		-		-			
Digital breast tomosynthesis screening	Usually approp	y not oriate	Expert Consensus	&⊛ 0.1-1n	nSv		1	1	12	2	0	0	0	0	0	0	0
Sestamibi MBI	Usually approp		Expert Consensus	ତତତ 1-1 mSv	0		1	1	13	0	0	0	1	0	0	0	0
Mammography with IV contrast	Usually approp		Expert Consensus	֎֎ 0.1-1mSv			1	1	12	0	0	0	1	0	0	0	1

Variant 5: Adult. Suspected local recurrence based on symptoms, physical examination, or laboratory value in patient with history of breast conservation therapy for DCIS. Initial imaging.

	Appropri	ateness	005				D. ()				F	Final	Tabu	latio	ns		
Procedure	Categ	gory	SOE	Adults RR	KL .	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Mammography diagnostic	Usua approp		Limited	&⊛ 0.1-1n	ıSv		9	9	0	0	0	0	0	0	0	3	11
			References		Study	v Quality											
			125 (28473077)				4										
			126 (30392596)				4										
			128 (21833567))			4										
Digital breast tomosynthesis diagnostic	Usua approp		Strong ⊕⊕ 0.1-1m		ıSv		9	9	0	0	0	0	0	0	1	1	12
			References			Study	Quality										
			125 (28473077))			4										
			43 (27411945)				3										

		44 (30466027)				3										
			126 (30392596))		4										
			36 (23826951)			3										
			42 (14684521)			4										
			45 (23963140)			Good					-		_			
US breast	Usua approp		Limited	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	1	0	3	4	6
			References		Study	Quality		•	-							
			128 (21833567))		4					-		-			
Mammography with IV contrast	Usuall approp		iate Consensus $\textcircled{0}$ 0.1-1113V			3	3	3	2	3	1	4	0	1	0	0
MRI breast without and with IV contrast	Usuall approp	riate Strong 0.0 IIISV		O 0 mSv [ped]	2	2	7	4	3	0	0	0	0	0	0	
			References Study Quality					-						<u>.</u>		
			130 (23046046))	3											
			58 (28750354)			2										
			129 (28754486))		3										
			131 (32108973))		4										
			59 (29139591)			3										
CT chest with IV contrast	Usuall approp		Expert Consensus	ଷଷଷ 1-10 mSv	֎֎֎֎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without IV contrast	Usuall approp		Expert Consensus	ତେତ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without and with IV contrast	Usuall approp		Expert Consensus	ତେତେ 1-10 mSv	∞∞∞∞ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
Image-guided core biopsy breast	Usuall approp		Limited	Varies	Varies	1	1	13	1	0	0	0	0	0	0	0
			References		Study Quality											
			127 (22039282))		4										

Image-guided fine needle aspiration breast	Usually not appropriate	Limited	Varies	Varies	1	1	10	1	1	0	1	0	0	0	1
		References 127 (22039282)		Study	y Quality										
		127 (22039282)		4										
MRI breast without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
FDG-PET breast dedicated	Usually not appropriate	Expert Consensus	ତତତ 1-10 mSv		1	1	12	0	1	0	1	0	0	0	0
Sestamibi MBI	Usually not appropriate	Expert Consensus	ତତତ 1-10 mSv		1	1	12	0	1	0	0	1	0	0	0

Variant 6: Adult. Suspected local recurrence based on symptoms, physical examination, or laboratory value in patient with history of mastectomy for DCIS. Initial imaging.

	Appropriateness				.				F	'inal '	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8 3 0 0	9
US breast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	4	3	7
		References													
		125 (28473077))		4										
		126 (30392596))		4			-							
MRI breast without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	7	1	4	0	0	1	1	0	0
		References		Study	v Quality										
		130 (23046046))		3										
		129 (28754486))		3										
		131 (32108973))		4			_						-	
CT chest with IV contrast	Usually not appropriate	Expert Consensus	ଢେଢଢ 1-10 mSv	ଡେଡେଡେ 3- 10 mSv [ped]	1	1	13	0	0	0	1	0	0	0	0

CT chest without IV contrast	Usuall ₂ approp		Expert Consensus	ତତତ 1-10 mSv	&&&& 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without and with IV contrast	Usuall ₂ approp		Expert Consensus	ତତତ 1-10 mSv	€€€€ 3- 10 mSv [ped]	1	1	13	0	0	0	1	0	0	0	0
Mammography diagnostic	Usually approp		Expert Consensus	֎֎ 0.1-1mS [•]	v	1	1	10	2	1	1	0	0	0	0	0
MRI breast without IV contrast	Usually approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
FDG-PET/CT skull base to mid- thigh	Usually approp		Expert Consensus	ଡଡଡଡ 10-30 mSv)	1	1	13	0	0	0	0	0	0	0	1
Digital breast tomosynthesis diagnostic	Usually approp		Expert Consensus	֎֎ 0.1-1mS [•]	v	1	1	10	2	2	0	0	0	0	0	0
Mammography with IV contrast	Usually approp		Expert Consensus	֎֎ 0.1-1mS [•]	v	1	1	10	2	1	0	1	0	0	0	0
Image-guided fine needle aspiration chest	Usually approp		Moderate	Varies	Varies	1	1	10	0	1	0	1	1	0	0	1
			References		Study	y Quality										
			132 (27866091))	(Good										
		<u>133 (22088803)</u> <u>3</u>											_	-		
Image-guided biopsy chest	Usuall ₂ approp		Moderate	Varies	Varies	1	1	13	0	1	0	0	0	0	0	0
			References	Study	y Quality											
			132 (27866091)			Good										
			133 (22088803))	3											

Variant 7: Adult. Known DCIS with microinvasion found on prior mammography, ultrasound, or MRI during initial evaluation. Axillary evaluation needed. Next imaging study.

	Appropriateness	005			D (F	'inal '	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
CT chest with IV contrast	Usually not appropriate	Expert Consensus	ଝଝଝ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without IV contrast	Usually not appropriate	Expert Consensus	ଝଝଝ 1-10 mSv	ହତତତ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	ଝଝଝ 1-10 mSv	ତତତତ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
MRI breast without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
MRI breast without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	11	0	1	1	0	0	1	0	0
FDG-PET/CT whole body	Usually not appropriate	Expert Consensus	ବ୍ୟବ୍ୟକ୍ତ 10-30 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
Digital breast tomosynthesis diagnostic	Usually not appropriate	Expert Consensus	֎֎ 0.1-1mSv		1	1	14	0	0	0	0	0	0	0	0
US axilla	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	8	4	2	0	0	0	0	0	0
US-guided fine needle aspiration biopsy axillary node	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	2	0	1	0	0	0	0	1
US-guided core biopsy axillary node	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	9	3	0	1	0	0	0	0	1
Mammography with IV contrast	Usually not appropriate	Expert Consensus	ତତ 0.1-1mSv		1	1	13	1	0	0	0	0	0	0	0
Lymphoscintigraphy axilla	Usually not appropriate	Expert Consensus	ତତ 0.1-1mSv		1	1	10	1	1	0	1	1	0	0	0

	Appropriatenes	S COT							I	Final	Tabu	latio	ns		
Procedure	Category	SOE SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
CT chest with IV contrast	Usually not appropriate	Expert Consensus	ବ୍ୟବ୍ୟ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without IV contrast	Usually not appropriate	Expert Consensus	ବ୍ୟବ୍ୟ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	ବ୍ୟବ୍ୟ 1-10 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
MRI breast without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
MRI breast without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	12	1	1	0	0	0	0	0	0
		References		Study	Quality						•				
		139 (34470633)		3		_			_	_				
FDG-PET/CT whole body	Usually not appropriate	Expert Consensus	ଝିଝିଝିଝି 10-30 mSv	≎≎≎≎ 3- 10 mSv [ped]	1	1	14	0	0	0	0	0	0	0	0
Digital breast tomosynthesis diagnostic	Usually not appropriate	Expert Consensus	֎֎ 0.1-1mSv		1	1	13	1	0	0	0	0	0	0	0
US axilla	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	10	0	2	1	0	0	0	0	1
US-guided fine needle aspiration biopsy axillary node	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	1	0	0	0	0	0	0	1
US-guided core biopsy axillary node	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	12	1	0	0	0	0	0	0	1

Variant 8: Adult. Known DCIS without microinvasion found on prior mammography, ultrasound, or MRI during initial evaluation. Axillary evaluation needed. Next imaging study.

Mammography with IV contrast	Usually not appropriate	Expert Consensus	&⊛ 0.1-1mSv	1	1	14	0	0	0	0	0	0	0	0
Lymphoscintigraphy axilla	Usually not appropriate	Expert Consensus	֎֎ 0.1-1mSv	1	1	11	0	1	0	2	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.