American College of Radiology ACR Appropriateness Criteria[®]

Palpable Breast Masses

Variant 1: Adult female, 40 years of age or older. Palpable breast mass. Initial imaging.

	Appropriate	eness	COL		r l		D (1				F	'inal '	Tabu	latio	ıs		
Procedure	Category	y	SOE	Adults RRL		Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Mammography diagnostic	Usually appropriat	te	imited	ତତ 0.1-1mS	Sv		9	9	0	0	0	0	0	0	2	2	13
		R	References			Study	v Quality										
		19	(17929256)				4										
		20	(12636326)				3										
		18	(17350262)				3										
		21	(27081707)				3										
		22	(32023120)				3			1			1				
Digital breast tomosynthesis diagnostic	Usually appropriat	te	Strong	֎֎ 0.1-1mS	Sv		9	9	0	0	0	0	0	0	0	1	16
		R	References			Study	v Quality										
		17	(22593120)				2										
		14	(24475859)				3										
		12	(21998048)				2										
		16	(26133221)				2										
		11	(23345348)				2										
		13	(23255766)				3										
		15	(29174225)				3		_								. <u> </u>
US breast	May be appropriat	te Li	imited	O 0 mSv		O 0 mSv [ped]	5	5	0	0	0	2	9	2	1	3	0

		References		Study	Quality										
		2 (25341156)			4										
		7 (11274555)			3										
		8 (12355002)			3										
		9 (12418762)			3										
		26 (11348373)			3										
		21 (27081707)			3			-		-					
Image-guided core biopsy breast	Usually appropria	Expert Consensus	Varies	Varies	1	1	14	0	1	0	2	0	0	0	0
Image-guided fine needle aspiration breast	Usually appropria	Expert Consensus	Varies	Varies	1	1	15	0	0	0	2	0	0	0	0
Mammography screening	Usually appropria	Expert Consensus	֎֎ 0.1-1mS	Sv	1	1	13	1	2	0	0	1	0	0	0
MRI breast without IV contrast	Usually appropria	Limited	O 0 mSv	O 0 mSv [ped]	1	1	14	1	2	0	0	0	0	0	0
		References		Study	y Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		24 (23046046)			3										
		23 (28754486)			3	_				1					.
MRI breast without and with IV contrast	Usually appropria	Limited	O 0 mSv	O 0 mSv [ped]	1	1	11	1	3	1	0	0	1	0	0
		References		Study	Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		24 (23046046)			3										
		23 (28754486)		1	3										
FDG-PET breast dedicated	Usually appropria	Limited	ତେତ 1-10 mSv		1	1	14	2	1	0	0	0	0	0	0
		References		Study	Quality		_								

			2 (25341156)			4										
Digital breast tomosynthesis screening	Usuall approp	· .	Expert Consensus	ତତ 0.1-1mଃ	Sv	1	1	13	1	2	0	0	1	0	0	0
Sestamibi MBI	Usuall approp	· .	Expert Consensus	ଝେଝ 1-10 mSv		1	1	16	0	1	0	0	0	0	0	0

Variant 2: Adult female, 40 years of age or older. Palpable breast mass. Mammography findings are suspicious or highly suggestive of malignancy (BI-RADS 4 or 5). Next imaging study.

Procedure	Appropri		SOE	Adults RRL	Peds RRL	Rating	Median			F	inal	Tabu	latio	ns		
Tiocedure	Categ	gory	SOE	Adults KKL	I CUS KKL	Kating	Wieulan	1	2	3	4	5	6	7	8	9
US breast	Usua approp		Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	1	2	14
			References		Study	V Quality										
			34 (12034957)			3										
			33 (16915997)			4										
	1		35 (-3098655)			4		_		-						
Image-guided core biopsy breast	Usually approp		Limited	Varies	Varies	1	1	13	1	2	0	0	0	0	0	1
			References		Study	V Quality										
			27 (17924407)			3										
			30 (-3098656)			4										
			28 (25386875)			3										
			29 (23252555)			4				1	-		1			
Image-guided fine needle aspiration breast	Usually approp		Limited	Varies	Varies	1	1	14	3	0	0	0	0	0	0	0
			References		Study	/ Quality										
			27 (17924407)			3										
			31 (27160231)			4										

MRI breast without IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	13	0	4	0	0	0	0	0	0
		References		Study	Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		32 (-3098654)			4										
		24 (23046046)			3										
		23 (28754486)			3										
MRI breast without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	10	2	3	0	1	0	1	0	0
		References		Study	Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		32 (-3098654)			4										
		24 (23046046)			3										
		23 (28754486)			3										
FDG-PET breast dedicated	Usually not appropriate	Limited	ଷଷଷ 1-10 mSv		1	1	13	1	2	0	1	0	0	0	0
		References		Study	Quality										
		2 (25341156)			4										
Sestamibi MBI	Usually not appropriate	Expert Consensus	ଝଝଝ 1-10 mSv		1	1	14	2	1	0	0	0	0	0	0

Variant 3: Adult female, 40 years of age or older. Palpable breast mass. Diagnostic mammography, DBT, and US findings are probably benign (BI-RADS 3). Next imaging study.

	Appropriateness	COF							F	'inal '	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Image-guided core biopsy breast	Usually not appropriate	Limited	Varies	Varies	3	3	2	2	7	0	5	1	0	0	0

		References		Study	y Quality										
		27 (17924407)			3										
		36 (4228709)			4										
		30 (-3098656)			4										
		37 (-3098658)			4										
Image-guided fine needle aspiration breast	Usually no appropriat		Varies	Varies	2	2	7	2	5	0	2	1	0	0	0
		References		Study	Quality										
		27 (17924407)			3										
		36 (4228709)			4										
		30 (-3098656)			4										
		37 (-3098658)			4										
		31 (27160231)			4										
MRI breast without IV contrast	Usually no appropriat		O 0 mSv	O 0 mSv [ped]	1	1	15	1	1	0	0	0	0	0	0
		References		Study	Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		24 (23046046)			3										
		23 (28754486)			3										
MRI breast without and with IV contrast	Usually no appropriat	te Limited	O 0 mSv	O 0 mSv [ped]	1	1	11	2	1	1	1	1	0	0	0
		References		Study	y Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		24 (23046046)			3										
		23 (28754486)			3										
FDG-PET breast dedicated	Usually no appropriat		֎֎֎ 1-10 mSv		1	1	16	1	0	0	0	0	0	0	0
		References		Study	Quality										
		2 (25341156)			4										

Sestamibi MBI	Usually not appropriate	Expert Consensus	ତ୍ତତତ 1-10 mSv		1	1	14	1	2	0	0	0	0	0	0	
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Variant 4: Adult female, 40 years of age or older. Palpable breast mass. Mammography findings are benign (BI-RADS 2) at the site of palpable mass. Next imaging study.

	Appropriateness								F	inal '	Fabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
US breast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	3	1	3	0	10	0	0	0	0
		References		Study	y Quality										
		8 (12355002)			3										
		9 (12418762)			3										
		33 (16915997)			4										
		38 (22119297)			3										
Image-guided core biopsy breast	Usually not appropriate	Expert Consensus	Varies	Varies	1	1	16	1	0	0	0	0	0	0	0
Image-guided fine needle aspiration breast	Usually not appropriate	Expert Consensus	Varies	Varies	1	1	15	2	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	17	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	16	0	0	0	1	0	0	0	0
FDG-PET breast dedicated	Usually not appropriate	Limited	ତତତ 1-10 mSv		1	1	16	0	1	0	0	0	0	0	0
		References		Study	y Quality										
		2 (25341156)			4										
Sestamibi MBI	Usually not appropriate	Expert Consensus	ଝିଝିଝି 1-10 mSv		1	1	17	0	0	0	0	0	0	0	0

	Appropri	ateness	207							F	inal	Tabu	latio	ns		
Procedure	Categ		SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
US breast	Usua approp		Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	1	1	1	0	2	3	9
			References		Study	Quality					1	1				
			2 (25341156)		-	4										
			8 (12355002)			3										
			9 (12418762)			3										
			19 (17929256)			4										
			20 (12636326)			3										
			39 (19933671)			3										
			18 (17350262)			3										
			38 (22119297)			3										
			26 (11348373)			3										
			40 (23096195)			3										
			22 (32023120)			3		_	-	1	1		-			1
Image-guided core biopsy breast	Usually approp		Limited	Varies	Varies	1	1	16	0	0	0	1	0	0	0	0
			References		Study	Quality										
			38 (22119297)			3										
Image-guided fine needle aspiration breast	Usually approp		Limited	Varies	Varies	1	1	17	0	0	0	0	0	0	0	0
			References		Study	Quality										•
			38 (22119297)			3										
MRI breast without IV contrast	Usually approp	y not oriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	16	0	1	0	0	0	0	0	0
			References		Study	Quality						-				

Variant 5: Adult female, 40 years of age or older. Palpable breast mass. Mammography findings are negative (BI-RADS 1). Next imaging study.

			2 (25341156)			4										
			8 (12355002)			3										
			9 (12418762)			3										
			19 (17929256)			4										
			25 (21477168)			3										
			24 (23046046)			3										
			23 (28754486)			3				-	-					
MRI breast without and with IV contrast	Usuall approp		Limited	O 0 mSv	O 0 mSv [ped]	1	1	12	1	1	0	3	0	0	0	0
			References		Study	/ Quality										
			2 (25341156)			4										
			8 (12355002)			3										
			9 (12418762)			3										
			19 (17929256)			4										
			25 (21477168)			3										
			24 (23046046)			3										
			23 (28754486)			3										
FDG-PET breast dedicated	Usuall approp	y not oriate	Limited	ତେତେ 1-10 mSv		1	1	17	0	0	0	0	0	0	0	0
			References		Study	/ Quality										
			2 (25341156)			4										
Sestamibi MBI	Usuall approp		Expert Consensus	ତ®ତ 1-10 mSv		1	1	17	0	0	0	0	0	0	0	0

Variant 6: Adult female, younger than 30 years of age. Palpable breast mass. Initial imaging.

	Appropriateness	COF				N.C. 11			F	'inal '	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
US breast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	1	0	0	2	14

		r															
			References			Study	V Quality										
			42 (1732936)				4										
			43 (2664867)				3										
			33 (16915997)	I			4										
			41 (2267387)				3										
			44 (3763885)				4										
			47 (26742998)				4			-	_						
Image-guided core biopsy breast	Usuall approp		Expert Consensus	Varies		Varies	1	1	15	0	0	0	1	0	1	0	0
Image-guided fine needle aspiration breast	Usuall approp		Expert Consensus	Varies		Varies	1	1	15	0	0	0	2	0	0	0	0
Mammography diagnostic	Usuall approp		Limited	�� 0.1-1m	ıSv		1	1	13	0	2	1	0	0	0	1	0
			References			Study	Quality			-	-						•
		References 42 (1732936)					4										
			43 (2664867)				3										
			45 (22358028)	1			4										
			46 (12558355)	1			3										
			41 (2267387)				3										
			44 (3763885)				4									1	
Mammography screening	Usuall approp		Expert Consensus	֎֎ 0.1-1m	ISv		1	1	16	0	0	0	0	0	0	1	0
MRI breast without IV contrast		propriateConsensusConsensusually not propriateLimitedO 0 m			,	O 0 mSv [ped]	1	1	15	0	1	1	0	0	0	0	0
	1		References			Study	Quality										•
			2 (25341156)				4										
		25 (21477168)					3										
			24 (23046046)	1			3										
			23 (28754486)				3										

MRI breast without and with IV contrast	Usually approp		Limited	O 0 mSv		O 0 mSv [ped]	1	1	13	0	2	1	0	0	1	0	0
			References			Study	Quality										
			2 (25341156)				4										
			25 (21477168)				3										
			24 (23046046)				3										
			23 (28754486)				3										
FDG-PET breast dedicated	Usually approp	y not riate	Limited	ତତତ 1-10 mSv			1	1	16	1	0	0	0	0	0	0	0
			References			Study	Quality										
			2 (25341156)				4										
Digital breast tomosynthesis diagnostic	Usually approp		Limited	֎֎ 0.1-1mS	Sv		1	1	14	0	2	1	0	0	0	0	0
			References			Study	v Quality										
			42 (1732936)				4										
			43 (2664867)				3										
			45 (22358028)				4										
			46 (12558355)				3										
			41 (2267387)				3										
			44 (3763885)				4										
Digital breast tomosynthesis screening	Usually approp		Expert Consensus	≎≎ 0.1-1mS	Sv		1	1	16	0	0	0	0	0	0	1	0
Sestamibi MBI	Usually approp		Expert Consensus	ଝେଝେ 1-10 mSv			1	1	16	0	1	0	0	0	0	0	0

Variant 7: Adult female, younger than 30 years of age. Palpable breast mass. US findings are suspicious or highly suggestive of malignancy (BI-RADS 4 or 5). Next imaging study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations 1 2 3 4 5 6 7 8 9

	Appropriateness	~ ~ ~			_				F	inal	Tabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Image-guided core biopsy breast	Usually appropriate	Limited	Varies	Varies	9	9	1	0	1	0	2	0	1	3	9
		References		Study	y Quality										
		27 (17924407)			3										
		50 (21135519)			3										
		51 (22180235)			3										
Digital breast tomosynthesis diagnostic	Usually appropriate	Strong	֎֎ 0.1-1mSv	,	8	8	0	0	0	0	2	2	4	1	8
		References		Study	y Quality		-				-				
		49 (24484063)			1										
		48 (26499000)			2										
Mammography diagnostic	Usually appropriate	Limited	֎֎ 0.1-1mSv	,	7	7	0	0	1	0	2	2	4	2	6
		References		Study	y Quality										
		41 (2267387)			3										
Image-guided fine needle aspiration breast	May be appropriate (Disagreement)	Expert Opinion	Varies	Varies	5	5	6	1	1	4	3	0	2	0	0
		References		Study	y Quality										
		27 (17924407)			3										
		50 (21135519)			3										
		51 (22180235)		1	3					-					
Mammography screening	Usually not appropriate	Expert Consensus	֎֎ 0.1-1mSv	,	1	1	16	0	0	1	0	0	0	0	0
MRI breast without IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	1	0	0	0	0	0
		References		Study	y Quality										
		2 (25341156)			4										
		25 (21477168)			3										

			24 (22046046)			2										
			24 (23046046)			3										
			23 (28754486)			3										
MRI breast without and with IV contrast	Usuall approp	y not oriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	13	0	1	2	0	0	1	0	0
			References		Stud	y Quality										
			2 (25341156)			4										
			25 (21477168)			3										
			24 (23046046)			3										
			23 (28754486)			3										
FDG-PET breast dedicated	Usuall approp	y not oriate	Limited	֎֎֎ 1-10 mSv)	1	1	16	0	1	0	0	0	0	0	0
			References		Stud	y Quality		-		-						
			2 (25341156)			4										
Digital breast tomosynthesis screening	Usuall approp	y not oriate	Expert Consensus	֎֎ 0.1-1m	Sv	1	1	16	0	0	1	0	0	0	0	0
Sestamibi MBI	Usuall approp		Expert Consensus	ତତତ 1-10 mSv)	1	1	16	0	1	0	0	0	0	0	0

Variant 8: Adult female, younger than 30 years of age. Palpable breast mass. US findings probably benign (BI-RADS 3). Next imaging study.

	Appropri	iateness	COL		T D	1 001	D. (1	N7 11			F	'inal '	Tabu	latio	ns		
Procedure	Categ	gory	SOE	Adults RR	L Pe	ds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Image-guided core biopsy breast	Usually approp		Limited	Varies	١	/aries	1	1	12	0	3	2	0	0	0	0	0
			References			Study	Quality										
			30 (-3098656)				4										
Image-guided fine needle aspiration breast	Usually approp		Limited	Varies	١	/aries	1	1	13	1	2	1	0	0	0	0	0
			References			Study	Quality		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$								
			27 (17924407)				y Quality 4										

		30 (-3098656)			4										
Mammography diagnostic	Usuall ₂ approp	Expert Consensus	&⊛ 0.1-1mS	v	1	1	16	0	1	0	0	0	0	0	0
Mammography screening	Usuall approp	Expert Consensus	֎֎ 0.1-1mS	v	1	1	17	0	0	0	0	0	0	0	0
MRI breast without IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	16	0	1	0	0	0	0	0	0
		References		Study	v Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		24 (23046046)			3										
		23 (28754486)		1	3			1			1				
MRI breast without and with IV contrast	Usually approp	Limited	O 0 mSv	O 0 mSv [ped]	1	1	14	1	1	0	1	0	0	0	0
		References		Study	v Quality										
		2 (25341156)			4										
		25 (21477168)			3										
		24 (23046046)			3										
		23 (28754486)			3										
FDG-PET breast dedicated	Usually approp	Limited	ଝେ≎େ 1-10 mSv		1	1	17	0	0	0	0	0	0	0	0
		References		Study	v Quality										
		2 (25341156)			4										
Digital breast tomosynthesis diagnostic	Usually approp	Expert Consensus	֎֎ 0.1-1mS	v	1	1	16	0	1	0	0	0	0	0	0
Digital breast tomosynthesis screening	Usuall ₂ approp	Expert Consensus	֎֎ 0.1-1mS	v	1	1	16	0	1	0	0	0	0	0	0
Sestamibi MBI	Usually approp	Expert Consensus	ତତତ 1-10 mSv		1	1	17	0	0	0	0	0	0	0	0

	Appropriaten	ness					D (1				F	'inal '	Tabu	latio	ns		
Procedure	Category		SOE	Adults RR		Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Image-guided core biopsy breast	Usually not appropriate		Limited	Varies		Varies	1	1	14	2	0	0	1	0	0	0	0
			References			Study	Quality							•	•		
			52 (26274736)				3										
Image-guided fine needle aspiration breast	Usually not appropriate		Expert Consensus	Varies		Varies	1	1	13	2	0	0	1	0	1	0	0
Mammography diagnostic	Usually not appropriate	ot e	Expert Consensus	�� 0.1-1m	ıSv		1	1	13	2	0	1	0	1	0	0	0
Mammography screening	Usually not appropriate		Expert Consensus	�� 0.1-1m	ıSv		1	1	16	0	0	0	1	0	0	0	0
MRI breast without IV contrast	Usually not appropriate		Limited	O 0 mSv	,	O 0 mSv [ped]	1	1	15	1	1	0	0	0	0	0	0
			References			Study	Quality										1-
			2 (25341156)				4										
			25 (21477168)				3										
			24 (23046046)				3										
			23 (28754486)				3										
MRI breast without and with IV contrast	Usually not appropriate		Limited	O 0 mSv	,	O 0 mSv [ped]	1	1	15	1	0	0	0	0	0	1	0
			References			Study	Quality										
			2 (25341156)				4										
			25 (21477168)				3										
			24 (23046046)				3										
			23 (28754486)				3										

Variant 9: Adult female, younger than 30 years of age. Palpable breast mass. US findings benign (BI-RADS 2). Next imaging study.

FDG-PET breast dedicated	Usuall approp		Limited	ତେତେ 1-1 mSv	0		1	1	17	0	0	0	0	0	0	0	0
			References			Study	v Quality										
			2 (25341156)				4										
Digital breast tomosynthesis diagnostic	Usuall approp	y not oriate	Expert Consensus	�� 0.1-1m	nSv		1	1	13	2	0	1	0	1	0	0	0
Digital breast tomosynthesis screening	Usuall approp		Expert Consensus	�� 0.1-1m	nSv		1	1	16	0	0	0	1	0	0	0	0
Sestamibi MBI	Usuall approp	y not oriate	Expert Consensus	ତେତେ 1-1 mSv	0		1	1	16	0	1	0	0	0	0	0	0

Variant 10: Adult female, younger than 30 years of age. Palpable breast mass. US findings negative (BI-RADS 1). Next imaging study.

	Appropri	iateness	COF		. т		D (1				F	'inal '	Tabu	latio	ıs		
Procedure	Categ		SOE	Adults RR		Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Image-guided core biopsy breast	Usuall approp		Expert Consensus	Varies		Varies	1	1	16	0	0	0	1	0	0	0	0
Image-guided fine needle aspiration breast	Usuall approp		Expert Consensus	Varies		Varies	1	1	16	0	0	0	1	0	0	0	0
Mammography diagnostic	Usuall approp		Limited	֎֎ 0.1-1m	nSv		1	1	9	1	2	3	1	0	0	1	0
			References			Study	v Quality										
			41 (2267387)				3		_		-		-	_			
Mammography screening	Usuall approp		Expert Consensus	�� 0.1-1m	ıSv		1	1	16	0	0	0	1	0	0	0	0
MRI breast without IV contrast	Usuall approp		Limited	O 0 mSv	/	O 0 mSv [ped]	1	1	15	1	1	0	0	0	0	0	0
			References			Study	Quality			•	•			•			
			2 (25341156)				4										

			25 (21477168)			3										
			24 (23046046)			3										
			23 (28754486)			3				-						
MRI breast without and with IV contrast	Usually approp		Limited	O 0 mSv	O 0 mSv [ped]	1	1	12	2	2	0	0	0	0	1	0
			References		Study	y Quality										
			2 (25341156)			4										
			25 (21477168)			3										
			24 (23046046)			3										
			23 (28754486)			3										
FDG-PET breast dedicated	Usuall ₂ approp		Limited	ଷଷଷ 1-10 mSv		1	1	17	0	0	0	0	0	0	0	0
			References		Study	y Quality										
			2 (25341156)			4										
Digital breast tomosynthesis diagnostic	Usuall ₂ approp		Limited	&⊛ 0.1-1mSv		1	1	9	1	2	3	1	0	0	1	0
			References		Study	y Quality		-		-						
			41 (2267387)			3										
Digital breast tomosynthesis screening	Usuall ₂ approp		Expert Consensus	&⊛ 0.1-1mSv		1	1	16	0	0	0	1	0	0	0	0
Sestamibi MBI	Usuall ₂ approp	y not riate	Expert Consensus	ଷ୍ଟଷ୍ଟ 1-10 mSv		1	1	16	0	1	0	0	0	0	0	0

Variant 11: Adult female, 30 to 39 years of age. Palpable breast mass. Initial imaging.

	Appropriateness	SOF			D. (N7 11			F	'inal '	Fabu	latio	ns		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Digital breast tomosynthesis diagnostic	Usually appropriate	Strong	֎֎ 0.1-1mSv		9	9	0	0	0	0	1	1	3	3	9
		References		Study	Quality										

		53 (17690501)			4										
		17 (22593120)		2 2 3 3 3 3											
		16 (26133221)													
		13 (23255766)													
		54 (28777649)													
		15 (29174225)													
		22 (32023120) 3							-						
Mammography diagnostic	Usually appropriate	Limited	֎֎ 0.1-1mSv		8	8	0	0	0	0	1	1	3	4	8
		References		Study											
		53 (17690501)			4										
		40 (23096195)		3											
		54 (28777649)		3											
		22 (32023120)			3										
JS breast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	3	0	3	3	8
		References		Study Quality 4 3											
		53 (17690501)													
		43 (2664867)													
		41 (2267387)			3										
		40 (23096195)		3											
Image-guided core biopsy breast	Usually not appropriate		Varies	Varies	1	1	14	1	0	0	0	0	1	0	1
mage-guided fine needle aspiration breast	Usually not appropriate		Varies	Varies	1	1	14	1	0	0	1	1	0	0	0
Mammography screening	Usually not appropriate		ତତ 0.1-1mSv		1	1	16	0	0	0	1	0	0	0	0
MRI breast without IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	1	1	15	0	1	1	0	0	0	0	0
		References		Study	Quality										

		2 (25341156)				4										
					· · ·											
		25 (21477168)			3											
		24 (23046046)			3											
		23 (28754486)			3											
MRI breast without and with IV contrast	Usually approp		Limited	O 0 mSv	O 0 mSv [ped]	1	1	13	1	1	1	0	0	1	0	0
		References			Study Quality											
		2 (25341156)			4											
		25 (21477168)			3											
		24 (23046046)			3											
		23 (28754486)			3											
FDG-PET breast dedicated	Usuall ₂ approp		Limited	ଝେଝଝ 1-10 mSv		1	1	16	0	0	1	0	0	0	0	0
		References			Study Quality											
		2 (25341156)			4											
Digital breast tomosynthesis screening	Usuall ₂ approp		Expert Consensus	֎֎ 0.1-1mS	v	1	1	16	0	0	0	1	0	0	0	0
Sestamibi MBI	Usually approp		Expert Consensus	֎֎֎ 1-10 mSv		1	1	15	1	1	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.