## American College of Radiology ACR Appropriateness Criteria<sup>®</sup>

### **Evaluation of the Symptomatic Male Breast**

#### Variant 1: Male patient of any age with symptoms of gynecomastia and physical examination consistent with gynecomastia or pseudogynecomastia. Initial imaging.

	Appropri	ateness								F	'inal '	Tabu	latio	ns		
Procedure	Categ	gory	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Mammography diagnostic	Usually approp	y not oriate	Limited	֎֎ 0.1-1mS	Sv	2	2	0	0	0	0	0	0	0	0	0
			References		Study	Quality										
			12 (28624748)			4										
			13 (27101347)			3										
			11 (318597)			4		_							-	
US breast	Usually approp		Limited	O 0 mSv	O 0 mSv [ped]	2	2	0	0	0	0	0	0	0	0	0
			References		Study	Quality										
			12 (28624748)			4										
			23 (27734795)			3										
			20 (26543053)			3										
			18 (24286092)			3										
			22 (23345385)			4										
			21 (23218476)			4										
			17 (20151357)			3										
			16 (20375373)			3										
			19 (24161780)			3										
Digital breast tomosynthesis diagnostic	Usually approp	y not riate	Limited	֎֎ 0.1-1mS	ŝv	2	2	3	14	0	1	0	0	0	0	0

			References			Study	Quality										
			15 (24852677)				4										
			14 (24113063)				4						-				
MRI breast without IV contrast	Usuall approp	·	Expert Consensus	O 0 mSv	,	O 0 mSv [ped]	1	1	0	0	0	0	0	0	0	0	0
MRI breast without and with IV contrast	Usuall approp	• .	Expert Consensus	O 0 mSv	,	O 0 mSv [ped]	1	1	0	0	0	0	0	0	0	0	0

#### Variant 2: Male younger than 25 years of age with indeterminate palpable breast mass. Initial imaging.

	Appropri	ateness	COF		<b>.</b>		<b>D</b> (1	N 7 11			F	'inal '	Tabu	latio	ns		
Procedure	Categ	ory	SOE	Adults RR	L	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]	8	8	0	0	0	0	0	0	0	0	0
			References			Study	v Quality										
			3 (20571799)				3										
Mammography diagnostic	May approp	be riate	Limited	֎֎ 0.1-1m	ıSv		5	5	0	0	0	0	0	0	0	0	0
			References			Study	v Quality										
			1 (16473746)				4										
			2 (17352365)				3										
Digital breast tomosynthesis diagnostic	May approp	be riate	Limited	֎֎ 0.1-1m	ıSv		5	5	1	0	1	1	14	0	1	0	0
			References			Study	v Quality										
			26 (25086999)				2										
			15 (24852677)				4										
			14 (24113063)				4										
MRI breast without IV contrast	Usually approp		Expert Consensus			O 0 mSv [ped]	1	1	0	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	0	0	0	0	0	0	0	0	0	
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#### Variant 3: Male 25 years of age or older with indeterminate palpable breast mass. Initial imaging.

	Appropriateness	205							F	'inal '	Tabu	latio	ıs		
Procedure	Category	SOE	Adults RRL	Peds RRL	Rating	Median	1	2	3	4				8	9
Mammography diagnostic	Usually appropriate	Strong	֎֎ 0.1-1mSv		8	8	0	0	0	0	0	0	0	0	0
		References		Study	y Quality										
		12 (28624748)			4										
		29 (21343472)			4										
		28 (16958958)			3										
		6 (19020230)			4										
		1 (16473746)			4										
		2 (17352365)			3										
		27 (16844928)			4										
		9 (11425067)			2										
		8 (23182522)		1	3				1	1					
Digital breast tomosynthesis diagnostic	Usually appropriate	Limited	֎֎ 0.1-1mSv		8	8	0	1	0	0	1	0	1	12	3
		References		Study	y Quality										
		26 (25086999)			2										
		15 (24852677)			4										
		14 (24113063)			4										
US breast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	0	0	0	0	0	0
		References		Study	y Quality										
		3 (20571799)			3										

MRI breast without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	0	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	0	0	0	0	0	0	0	0	0

Variant 4: Male 25 years of age or older with indeterminate palpable breast mass. Mammography or digital breast tomosynthesis indeterminate or suspicious.

	Appropri	ateness	COF			<b>D</b> (1				F	'inal '	Tabu	latio	ns		
Procedure	Categ		SOE	Adults RRI	2 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	0	0	0	0	0	0	0
			References		Study	Quality										
			28 (16958958)			3										
			3 (20571799)			3				_	_	-				
MRI breast without and with IV contrast	Usually approp		Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	0	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	0	0	0	0	0	0	0	0	0

# Variant 5: Male of any age with physical examination suspicious for breast cancer (suspicious palpable breast mass, axillary adenopathy, nipple discharge, or nipple retraction). Initial imaging.

	Appropriaten				D.C				F	inal	Tabu	latio	ns		
Procedure	Category		Adults RRL	Peds RRL	Rating	Median	1	2	3	4	5	6	7	8	9
Mammography diagnostic	Usually appropriate	Limited	֎֎ 0.1-1mSv		9	9	0	0	0	0	0	0	0	0	0
		References		Study	Quality										
		12 (28624748)			4										
		28 (16958958)	1		3										
		11 (318597)			4										

		6 (19020230)			4										
		3 (20571799)			3										
		27 (16844928)	)		4										
		9 (11425067)			2										
		24 (2218826)			4										
Digital breast tomosynthesis diagnostic	Usually appropriate	Limited	֎֎ 0.1-1mS	iv l	9	9	0	0	0	0	0	0	1	2	15
		References		Stud	y Quality										
		26 (25086999)	)		2										
		15 (24852677)	)		4										
		14 (24113063)	)		4			-		-			<del></del>	<b></b>	·
US breast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	0	0	0	0	0
		References		Stud	y Quality										
		12 (28624748)	)		4										
		32 (25772378)	)		3										
		31 (21745659)	)		4										
		30 (20560973)	)		3										
		28 (16958958)	)		3										
		11 (318597)			4										
		16 (20375373)	)		3										
[		3 (20571799)			3	1					1		·	,	·
MRI breast without and with IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	3	3	0	0	0	0	0	0	0	0	0
		References		Stud	y Quality										
		33 (27709811)	)		4										
		34 (16371581)	)		3										
MRI breast without IV contrast	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	0	0	0	0	0	0	0	0	0
		References		Stud	y Quality										
		33 (27709811)	)		4										

34 (16371581)	3

#### **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.