

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

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.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations									
							1	2	3	4	5	6	7	8	9	
Mammography diagnostic	Usually not appropriate	Limited	⊕⊕ 0.1-1mSv		2	n/a	0	0	0	0	0	0	0	0	0	0
		References		Study Quality												
		12 (28624748)		4												
		13 (27101347)		3												
		11 (318597)		4												
US breast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	2	n/a	0	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 not appropriate	Limited	⊕⊕ 0.1-1mSv		2	2	3	14	0	1	0	0	0	0	0	0

MRI breast without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	1	n/a	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.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
Mammography diagnostic	Usually appropriate	Strong	⊕⊕ 0.1-1mSv		8	n/a	0	0	0	0	0	0	0	0	0

References	Study 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)	3

Digital breast tomosynthesis diagnostic	Usually appropriate	Limited	⊕⊕ 0.1-1mSv		8	8	0	1	0	0	1	0	1	12	3
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References	Study Quality
26 (25086999)	2
15 (24852677)	4
14 (24113063)	4

US breast	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	5	n/a	0	0	0	0	0	0	0	0	0
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References	Study Quality
3 (20571799)	3

MRI breast without IV contrast	Usually not appropriate	Expert Consensus	0.0 mSv	0.0 mSv [ped]	1	n/a	0	0	0	0	0	0	0	0	0
MRI breast without and with IV contrast	Usually not appropriate	Expert Consensus	0.0 mSv	0.0 mSv [ped]	1	n/a	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.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US breast	Usually appropriate	Limited	0.0 mSv	0.0 mSv [ped]	9	n/a	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 not appropriate	Expert Consensus	0.0 mSv	0.0 mSv [ped]	2	n/a	0	0	0	0	0	0	0	0	0
MRI breast without IV contrast	Usually not appropriate	Expert Consensus	0.0 mSv	0.0 mSv [ped]	1	n/a	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.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
Mammography diagnostic	Usually appropriate	Limited	⊕⊕ 0.1-1mSv		9	n/a	0	0	0	0	0	0	0	0	0
		References	Study Quality												
		12 (28624748)	4												
		28 (16958958)	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	☼☼ 0.1-1mSv		9	9	0	0	0	0	0	0	1	2	15
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References	Study Quality
26 (25086999)	2
15 (24852677)	4
14 (24113063)	4

US breast	Usually appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	8	n/a	0	0	0	0	0	0	0	0	0
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References	Study 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

MRI breast without and with IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	3	n/a	0	0	0	0	0	0	0	0	0
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References	Study Quality
33 (27709811)	4
34 (16371581)	3

MRI breast without IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	1	n/a	0	0	0	0	0	0	0	0	0
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References	Study Quality
33 (27709811)	4

34 (16371581)	3
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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.