

# Moving Breast MRI Requests to Primary Care While Avoiding Unnecessary Tests

Cary S Kaufman MD<sup>1,2</sup>, Valerie S Behrndt MD<sup>3</sup>, Kimberlee Moses RN, OCN<sup>4</sup>, William Hall MD<sup>5</sup>, Greg M Wolgamot MD<sup>6</sup>, Lars Crabo MD<sup>3</sup>, Laura Backer MD<sup>3</sup>, Ken Carpenter MD<sup>3</sup>, Shelly Smits CRT<sup>4</sup>.

1) Bellingham Regional Breast Center, 2) University of Washington, 3) Mount Baker Imaging, 4) PeaceHealth St. Joseph Medical Center, 5) Northwest Washington Radiation Oncology Associates, 6) Northwest Pathology



**ABSTRACT:**

**Background / Objectives:** Controversy exists regarding the value and frequency of breast MRI in the evaluation of the breast cancer patient. Lack of clear guidelines used by all disciplines contributes to this problem. Currently breast MRI is ordered only after the surgeon or other cancer physician sees the patient which creates a major delay in treatment. Although the radiologist is the clinician most likely to accurately judge the need for MRI after diagnosis, issues of self-referral prevent the radiologist from participating in this decision-making process. Our multidisciplinary team developed an agreed upon set of indications for breast MRI which would be transmitted to Primary Care to proceed in ordering the breast MRI when indicated and avoiding the order when not indicated.

**Methods:** After several multidisciplinary meetings on this subject a set of indications for breast MRI after the diagnosis of breast cancer were agreed upon. They consisted of women with invasive lobular cancer, women with dense breast tissue, women with cancers that were difficult to see the primary, women with multiple apparent primaries and young women under 50 years old who were diagnosed with breast cancer. None of these guidelines were for women without a new diagnosis of breast cancer. This message was put on the biopsy report as a recommendation by the joint breast care committee's guidelines and sent to the primary care provider when they received the news of the biopsy results. By the primary care provider receiving the message that the patient needed a breast MRI, that instructed the provider to order the exam but also, when there was no recommendation to order the breast MRI, the provider did not order it. The goal was to facilitate early ordering of indicated breast MRI and avoid inappropriate ordering of breast MRI without indications. Prior to this mechanism, we measured how often the breast MRI was performed, who ordered the study, how many days before or after our first multidisciplinary meeting was the breast MRI, how many days before or after surgical consultation was the study performed.

**Results:** Improvements were made in all directions. There were 46 patients evaluated prior to the initiation of this program and 35 patients evaluated afterwards. Before the program, breast MRI was obtained 9.2 days after our multidisciplinary meeting and 23.3 days after initial biopsy. After the program breast MRI occurred prior to the MDC meeting by 2.0 days and 13.5 days after biopsy. Some 20% of breast MRI's were not recommended by our conference, yet the primary care provider ordered them anyway. After our protocol that decreased to 14%. Also, MRI's were recommended previously which did not occur in 12% of patients. After our protocol, there were no patients who did not receive an indicated MRI.

After we instituted. routine advice given on the biopsy report from the radiologists, immediate incorporation of the recommendations was noted. Now 92% of all breast MRI's were ordered by primary care when only a few were ordered previously. The breast MRI's were more timely. They were obtained now 2 days PRIOR to the multidisciplinary meeting.

**Conclusions:** We addressed issues with breast MRI including inconsistent indications, delays in obtaining the study, blanket overuse of breast MRI and increased costs associated with all these items. By developing a set of breast MRI indication guidelines, and giving recommendations to primary care providers based on those guidelines, most of these problems have either resolved or been significantly improved. Agreement on breast MRI guidelines is the first step in clarifying its use.

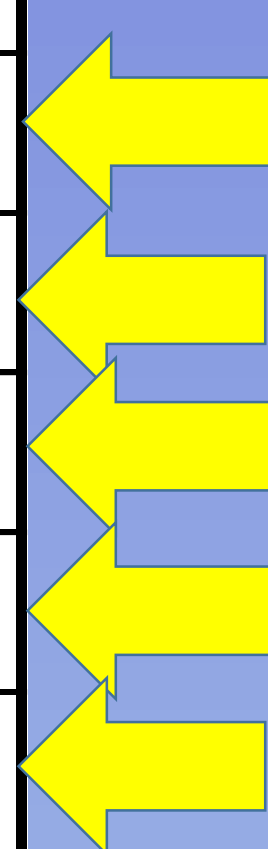
**MRI Indications Defined by Breast Program Leadership**

- Dense breast on mammogram
- Imaging occult cancer
- Invasive lobular carcinoma
- Women under 50 years old

**Transferring MRI Requests to Primary Care**

- Timing of ordering Breast MRIs caused significant delays in care.
- Indications for breast MRI were debated and the Breast Program Leadership defined MRI indications.
- At time of positive needle biopsy, primary care providers were told of need for MRI.
- We transferred the initial MRI order to Primary Care, shortens the time to surgical decision-making, avoiding unnecessary MRIs (lowering costs), and increasing program efficiency.

	PRE (n=46)	POST (n=35)	
Age (yrs)	65.6	63.1	
Age range (yrs)	32-89	45-90	
Dx made by mammogram	71.4%	73.9%	
Had MRI during workup	52%	63%	
Days from biopsy to MDC	13.7	15.1	
MRI ordered by PMD	38%	92%	*
Days from biopsy to MRI	23.3	13.6	*
Days from MDC to MRI	9.2	-2.0	*
MRI recommended but not rec'd	12%	0%	*
MRI not recommended but rec'd	20%	14%	*
MDC = multidisciplinary conference			
Dx = diagnosis			
PMD = Primary Medical Doctor			



**RESULTS**

- Primary Care Now Orders MRIs
- MRI Available at MDC Conference
- MRI Available at Surgery Consult
- Improved Timeliness of Care
- Less "Unnecessary" MRIs
- Increased Efficiency / Lower Cost



**References**

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