

Clinical Practice Guidelines – Breast Disease Site

Guideline Title:	Indications for Use of Breast Magnetic Resonance Imaging (MRI) - Summary	Date:	(O): June 30, 2011 (R): Aug 31, 2017
Tumor Group:	Breast Disease Site Group	Page:	1 of 3
Issuing Authority:	Dr. Rick Bhatia, Clinical Chief, Diagnostic Imaging	Date Signed:	Jan 19, 2018
Adapted From:	Alberta Health Services “magnetic resonance imaging for breast cancer screening, pre-operative assessment, and follow-up” guideline, October 2012 (8).		

Target Population:

Patients who meet the criteria for the use of breast magnetic resonance imaging (MRI).

Recommendations:

Patients, who otherwise have no contraindications, are eligible for magnetic resonance of the breast when they meet at least one of the clinical indicators for its use.

Clinical Indicators:

- Screening of high risk individuals, those with:
 - Genetic predisposition* (proven or presumptive) (1-5)
 - Past history of mediastinal radiation between ages of 10 and 30 (6).
- Problem solving when mammographic, sonographic or clinical findings are suspicious but inconclusive, such as:
 - Inconclusive findings of breast cancer (7)
 - Pre-operative MRI (8)
- Assessment of positive margins following breast cancer surgery
 - Previous lumpectomy (9-11)
- Differentiation of post-surgical scarring from recurrent tumor (7,12,13)
- Search for source of primary malignancy when the breast is normal by conventional imaging in the presence of tumor positive axillary adenopathy (14-16)

* For a detailed description of proven or presumptive genetic predisposition, review the Breast Disease Site Group’s “breast magnetic resonance imaging and high risk hereditary breast cancer” guideline.

- Assessment of response to neoadjuvant chemotherapy (17,18)

7. Assessment of breast implant integrity (19,20).

Qualifying Statements:

- Breast MRI does not replace conventional imaging (ie. mammography or ultrasound) and physical examination. A negative breast MRI also does not exclude the presence of malignancy or preclude the appropriate management of an otherwise suspicious finding.
- Magnetic Resonance Imaging (MRI) has been shown to be superior in sensitivity to mammography, but significantly lower in specificity, resulting in a higher false-positive rate. Therefore, the recommendation would be for its use in screening **only** those patients deemed to be at high risk.

Note:

- Breast MRI should be scheduled during the second week of the menstrual cycle (days 5 to 13) in premenopausal women. Occasionally, areas of normal hormonally sensitive breast tissue may enhance intensely on MRI which could result in a false positive reading. Therefore, examination is best performed in mid-cycle (21).
- To date there is not enough evidence to support routine MRI screening of the reconstructed breast.
- The performance of breast MRI is not recommended while the patient actively lactating/breastfeeding (22). The administration of Gadolinium-based contrast agent used in MRI imaging is contraindicated during pregnancy (8,22).

Disclaimer:

These guidelines are a statement of consensus of the Breast Disease Site Group regarding their views of currently accepted approaches to diagnosis and treatment. Any clinician seeking to apply or consult the guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment.

Contact Information:

For more information on this guideline, please contact Dr. Nancy Wadden MD FRCPC, St. Clare's Mercy Hospital, St. John's, NL; Telephone 709-777-5657. For the complete guideline on this topic or for access to any of our guidelines, please visit our Cancer Care Program website at www.easternhealth.ca

Literature Support:

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