**Malignant breast disease: An audit of classification of symptomatic breast imaging**

**Descriptor:**

An audit to assess grading of findings on mammography and breast ultrasound in proven breast malignancies in the symptomatic breast service using the Breast Imaging Reporting and Data System (BI-RADS) lexicon.

**Background:**

Standardisation of breast imaging reports is facilitated by a classification advised by the Royal College of Radiologists Breast Group, that all breast imaging reports from a symptomatic clinic should contain a numerical score [1,2]. Most malignancies will be classified as 4, “suspicious of malignancy” or 5, “highly suspicious of malignancy”. As many as possible breast malignancies should be in either of these two categories on overall imaging. As few as possible should be scored 1 to 3 which are for normal, benign and indeterminate/probably benign lesions, respectively. There is no universally accepted target and local targets will need to be agreed. In the American BI-RADS classification there is a target of less than 2% of lesions scored BI-RADS 3 being malignant [3]. However the RCR category Score 3 correlated with BI-RADS 4 a/b and UK Score 4 corresponded with BI-RADS 4c. [1,5]. The sensitivity of one stop clinics is high and from our own audit data we would suggest that 90% of malignancies should be scored as 4 or 5 on overall imaging [6].

## The Cycle

**The standard:**

All symptomatic breast imaging reports should have a numerical score and most malignancies should have an overall score of 4 or 5.

**Target:**

• 100% of breast imaging examinations should have a score in the report (unless chemotherapy/ hormone therapy progress examinations)

• 90% or more of malignancies presenting through the symptomatic service should have an overall imaging report score of 4 or 5 (standard based on local audit results)

## Assess local practice

**Indicators:**

Percentage of reports containing numerical score and percentage of malignancies scored 4 or 5.

**Data items to be collected:**

• Use pathology database to identify symptomatic service breast malignancies

• Review radiology reports for these cases on RIS

**Suggested number:**

Sample size will depend on practice - 100 cases or one year’s results.

**Suggestions for change if target not met:**

• Multidisciplinary review of all malignancies not scored 4 or 5 including pathology type and review of images

• Review team use of scoring categories

• Re audit subsequent batch of cases.

**Resources:**

- Breast malignancies from pathology database

- Time to collect data will depend on ease of use of local data storage - we estimate:

   • 5 hours to review and tabulate 100 cases for which pathology is available

   • One hour of subsequent MDT meeting

**References:**

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2. Guidelines for the management of symptomatic breast disease. EJSO 2005,31,S1-S21.
3. Breast Imaging reporting and data system (BI-RADS) atlas. 4th ed. RESTON, VA: American College of Radiology; 2003.
4. Breast Imaging: a guide for practice. Camperdown, NSW: National Breast Cancer Centre; 2002,page 49 <http://canceraustralia.gov.au/sites/default/files/publications/big-1-breast-imaging-guide_504af02b4e80c.pdf>
5. Quantification of the UK 5-point breast imaging classification and and mapping to BI-RADS to facilitate comparison with international literature. K Taylor et al - ‎ BJR 2011 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3473699/>
6. Britton. P, Duffy SW, Sinnatamby R, et al. 2009 British journal of Cancer. 100;1873-1878. One-stop diagnostic breast clinics: how often are breast cancers missed? <http://www.ncbi.nlm.nih.gov/pmc/articles/pmc2714235/>

**Editor's comments:**

If individual radiologist/ breast clinician/ radiographer details are collected then individual results can be used for revalidation purposes.

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**Published Date:**

Thursday 17 February 2011

**Last Reviewed:**

Tuesday 20 April 2021