# Accuracy of Image Guided Needle Localisation of Breast Lesions

**Descriptor:**

Image guided localisation using either stereotactic or ultrasound guidance is a common technique. This audit assesses the accuracy of this procedure.

**Background:**

There is an increasing trend towards breast conservation in the treatment of breast cancer. It is essential that impalpable lesions detected either on mammography or by ultrasound are accurately localised pre-operatively to enable successful surgical excision at the first operation. The NHSBSP and the Association of Breast Surgery define 2 standards one relating to wire position and the other the accuracy of open biopsy of impalpable lesions.

## The Cycle

**The standard:**

On the post localisation mammogram checks, the localisation wire should be within 10mm of the lesion in any plane.

To ensure the diagnostic accuracy of open biopsy >98% of impalpable lesions should be correctly identified at the first operation.

**Target:**

• >95% of localisation wires within 10mm of the lesion in any plane (NHSBSP)

• for patients undergoing open biopsy >98% of impalpable lesions should be correctly identified at the first operation.

## Assess local practice

**Indicators:**

• Distance from wire to lesion

• Review specimen radiograph to ensure lesion within excised specimen

• Number of patients requiring more than one operation to identify the detected impalpable radiological lesion

**Data items to be collected:**

For all patients who have undergone image guided localisation review imaging.

• Distance of wire from lesion

• Type of wire used

• Method of localisation

• Nature of lesion - eg. Calcium, soft tissue mass

• Operator (allows individual data for purposes of revalidation)

• Was marker placed at time of biopsy?

• Was lesion successfully excised?

**Suggested number:**

50-100

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

- In unsuccessful cases is there a common factor?

- Are individual operator numbers too low?

- Should more markers be placed at the time of undertaking biopsies?

- Is a different method of imaging guidance being used than that used at the time of non-operative biopsy?

**Resources:**

Radiolgist or radiographer undertaking localisation procedures to review images (2-4 hours)

**References:**

1. Quality Assurance Guideline for Surgeons in Breast Cancer Screening NHSBSP Publication No. 29 2009 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/465694/nhsbsp20.pdf>
2. Best Practise Guidelines for Surgeons in Breast Cancer Screening <https://associationofbreastsurgery.org.uk/media/64276/final-screening-guidelines-2018.pdf>

**Editor's comments:**

If other methods of localisation such as radio-guided occult lesion localisation (ROLL)  have been introduced then these too should be audited.

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