**CT Guided Biopsies**

**Descriptor:**

Success rate of CT guided biopsies.

**Background:**

CT guided biopsies should have a diagnostic yield, appropriate to practice and case mix. The adequacy of the specimen obtained (diagnostic yield) has a direct bearing on patient management. A high success rate instills confidence in the procedure amongst the referring clinicians and patients and may be used to inform consent. Although strictly speaking, the diagnostic accuracy (requiring final surgical diagnosis as the gold standard) is a more precise indicator, diagnostic yield is in effect simpler to measure for audit purposes.

## The Cycle

**The standard:**

Diagnostic yield varies with technique (FNA vs. cutting biopsy; path chosen), tissue and type of lesion with a range from 70-92% for FNA cytology and 93-100% for histological core biopsy specimens. A locally agreed standard should be used depending on practice and case mix e.g. 80% of CT guided biopsies should have a diagnostic yield [1-9].

**Target:**

This will vary according to site/technique of biopsy.

## Assess local practice

**Indicators:**

Percentage of CT guided biopsies which have a diagnostic yield.

**Data items to be collected:**

For each biopsy record:

• CT biopsy (radiology) report – including details of the needle used and number of passes

• Cytological and/or histopathological report

• Coded indicator for the operator

**Suggested number:**

30 consecutive patients.

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

• Discuss the results of the audit with the radiologists and pathologists involved

• Introduce a biopsy logbook to encourage follow-up of cases

• Ensure feedback to radiologists from pathologists and clinical colleagues. The MDT may be a useful forum to do this on an up to date case by case basis

• Discuss the need for immediate cytological examination of fine needle aspirates (FNAs) for cellularity

• Use core biopsy where safe and feasible. (FNAC remains technique of choice in the thyroid) Consider multiple passes if difficult.

• If the number of operators is disproportional to the number of cases limit the number of operators to those who achieve the target and maintain adequate CPD. If few operators further training should be considered for individuals not achieving the target

**Resources:**

• Computer records to identify patients

• Review radiology reports

• Review pathology reports

• Radiologist (4 hours for reviewing the pathology reports and analysing the data)

**References:**

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**Editor's comments:**

May be useful to combine this with audit of complications.

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**Published Date:**

Monday 7 January 2008

**Last Reviewed:**

Sunday 26 September 2021