

Title:

Assessing the Unsatisfactory for Pathological Assessment Rate of Ultrasound Guided Fine Needle Thyroid Biopsies

Background:

Ultrasound (US) guided fine needle thyroid biopsy (FNTB) is a cost effective and accurate method to help guide management of thyroid nodules. A low unsatisfactory for pathological assessment rate decreases the need for repeat biopsies, decreasing diagnostic conundrums, patient anxiety and costs.

Target:

Unsatisfactory for pathological assessment rate of less than 20%.

Methods:

Review 100 consecutive US guided FNTB. Compare the ultrasound report to corresponding pathological report to determine the unsatisfactory for pathological assessment rate. Evaluate multiple technical aspects from the radiology report such as number of needle passes, needle gauge, performing radiologist, and nodule characteristics to determine possible areas of intervention.

Recommendations:

Possible interventions if target not met include:

- Modifying technical factors, such as needle gauge, number of needle passes, or target localization.
- Increasing volume of cases.
- Modifying slide preparation.

References:

- Cibas E, and Ali S. The Bethesda System for Reporting Thyroid Cytopathology. *Am J Clin Pathol* 2009; 132:658-665.
- Frates M, Benson C, Charboneau J, Cibas E, Clark O, Coleman B et al. Management of Thyroid Nodules Detected at US: Society of Radiologists in Ultrasound Consensus Conference Statement. *Radiology* 2005; 237:794-800.
- Kim M, Kim E, Park S, Kim B, Kwak J, Kim S *et al.* US-guided Fine-Needle Aspiration of Thyroid Nodules: Indications, Techniques, Results. *Radiographics* 2008; 28:1869-1889.