



Service Line Strategy Advisor
and Oncology Roundtable

Staffing Considerations for On-Site Pathology Evaluations

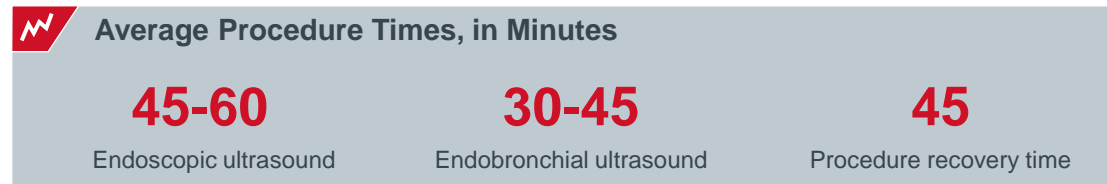
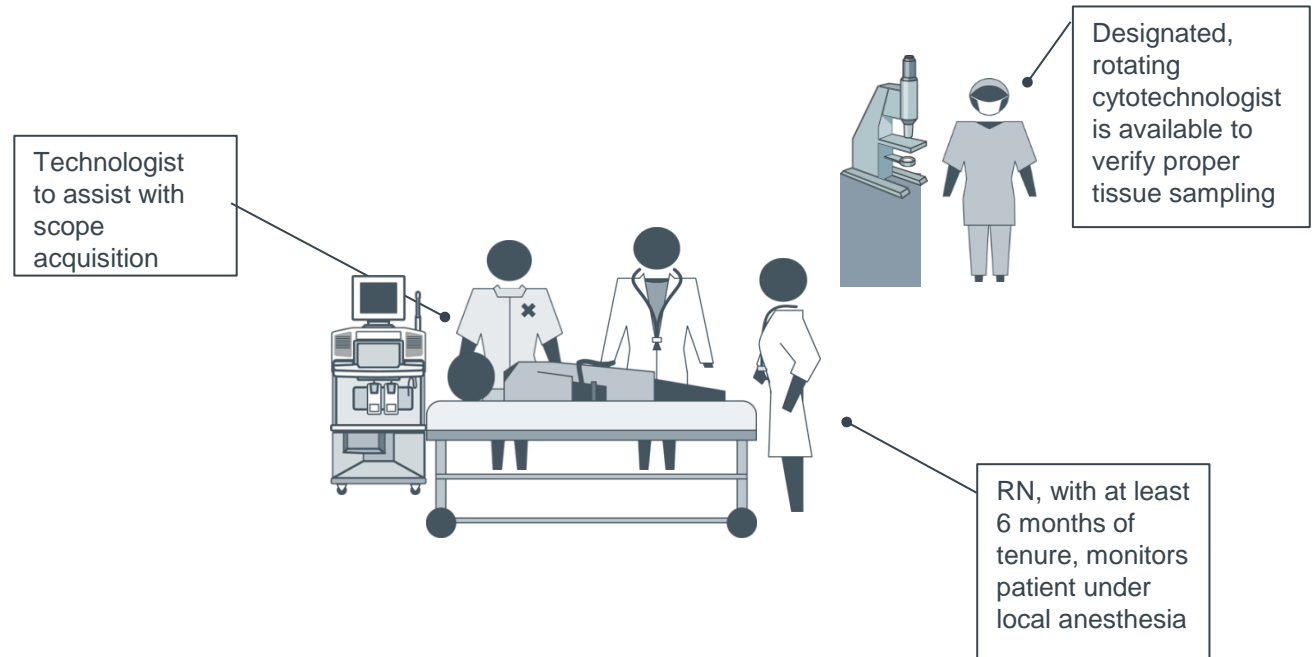
Excerpted from “Endobronchial Ultrasound (EBUS) 360° Assessment”, 2014

Multidisciplinary Staff Required For Optimal Procedure Workflow

While EBUS-guided procedures are less invasive and require fewer resources than alternative procedures like mediastinoscopies, they also require a multidisciplinary staff. Since the procedures require local anesthesia, having a nurse present in addition to a technologist and a cytopathologist or cytotechnologist is ideal. An alternative to staffing each suite with a dedicated cytotechnologist is to have an on-call cytotechnologist. Within the pathology department, one technologist may be designated to travel to the EBUS suite to reanalyze collected tissue samples for all procedures in a given day.

Scheduling patterns are largely dependent on expected volume and physician availability. While hospitals may realize cost savings by using a single processor that is compatible with EBUS scopes and collocating pulmonary and gastrointestinal endoscopic services, many institutions choose to utilize separate suites so that both procedures may be performed at the same time. EBUS can be done in a non-surgically sterile environment such as a bronchoscopy or endoscopy suite.

Typical Endoscopy Suite Set-up for EBUS-Guided Procedures



Technology Insights research and analysis.

Rapid On-Site Cytopathology Review Costly, Though Recommended

Offering cytopathology services within the endoscopic suite at the time of the EBUS-TBNA procedure is commonly viewed as a needed service for expedited, high quality patient care.

However, providing a dedicated or on-call cytopathologist can prove costly. In order to drive down costs, many institutions utilize an in-room *cytotechnologist* to provide a preliminary analysis of tissue specimens and immediately report findings to the echoendosonographer to ensure that ample specimen has been recovered. Then, a *cytopathologist* can diagnose the sample at the conclusion of the procedure. Making efficient use of cytotechnologists within the suite at the time of sample evaluation for the EBUS-TBNA procedure can maximize existing resources and reduce the need to hire additional cytopathologists.

Coordinate Cytopathology Staff to Maximize Resources



Cytotechnologist

- Immediately reports findings to echoendosonographer to ensure ample tissue sample has been collected
- Cytopathologist then later diagnoses sample
- Reimbursement (CPT 88172): \$33



Cytopathologist

- Diagnose sample on the spot, during procedure
- Reimbursement (APC 0343): \$88



Pillar of a High Quality EUS Program

“In our practice we have a cytotechnologist and microscope available in the room for immediate evaluation of the FNA specimen. The cytotechnologist performs a cursory examination of the specimen, and then the cytologist performs the diagnosis. In my fifteen years of practice, my opinion is that rapid on-site cytologic evaluation is a hallmark of a high-quality EUS program, which results in both time and cost savings...”

*Gastroenterologist
Academic Medical Center in the Northeast*

1) Pompa, RL. 2007. *Gastrointestinal Endoscopy*. 65(7): 958-959.

Formal, Rigorous Training Required for Echoendosonographer to Interpret FNAs

Meeting staffing requirements for cytopathologists and cytotechnologists for the rapid analysis of needle aspiration specimens has large cost implications, which, when factored into the overall investment in EBUS equipment, greatly increases the number of procedures required for breakeven. In recognition of the cost-prohibitive nature of staffing a cytopathologist or cytotechnologist in the endoscopic suite, it has been postulated that endosonographers can – with sufficient training – perform the preliminary specimen analysis themselves after tissue resection. Though research in this area is currently limited, some studies have shown high specimen collection accuracy by endosonographers.

Still, institutions opting to have the physicians performing EBUS interpret specimens without a cytopathologist at the ready should ensure they receive formal and extensive training alongside a cytopathologist or cytotechnologist to establish competency in determining specimen adequacy and characterization.

Cytopathologist Must Provide Extensive, Formal Training



- Cytopathologist must work to train physician performing the procedure in accurate interpretation of tissue adequacy and malignancy
- No firm guidelines exist to determine echoendosonographer competency at tissue interpretation
- Little proven clinical benefit of endosonographer taking on additional roles



ROSE Performed by Endosonographer Useful When Cytopathologist Not Available¹

- Retrospective study of 212 patients undergoing EUS
- Comparison between outcomes of exams for which ROSE was performed by endosonographers versus cytopathologists
- Study found that endosonographers were able to achieve high specimen collection and diagnostic accuracy rates, of 94.7% and 97.4% respectively, without the attendance of cytopathologists

1) Hikichi et al., "Endoscopic ultrasound-guided fine-needle aspiration," *Journal of Gastroenterology* 2009.



2445 M Street NW | Washington DC 20037
P 202.266.5600 | F 202.266.5700

advisory.com