

Bronchoscopy Advanced Beginner/Competent Clinical Skills Assessment

This assessment tool can be used formatively for those trainees are at the advanced beginner stage to help them assess their progress toward competence. Additionally, it can be used summatively as a tool to ensure competence with each of the diagnostic modalities. When used in a summative fashion, the supervising physician should have the goal of participating only as a silent observer to ensure that the objectives below are met. If the supervising clinician feels the need to intervene during the procedure, this should be recorded in the comments and the tool should be reattempted at a later date prior to achieving the competent milestone.

All procedures being evaluated should use the "For all procedures" section and also the sections applicable to the procedure being evaluated.

Fellow: _____ Date: _____

Supervised by: _____ M.D. _____ R.R.T _____

For all procedures

- Fellow has passed the Competent Cognitive Skills Assessment (if applicable).^{MK}
- Fellow is able to describe the indications for the bronchoscopic procedure, the specific procedure to be performed, and the lab tests for the expected samples obtained.^{PC, MK, SBP}
- Fellow is aware of the risks and contraindications of the procedure to be performed and the patient factors that could lead to complications.^{MK, PC}
- Fellow is able to independently locate and visually inspect each of the segmental airways correctly.^{MK, PC}
- Fellow is able to locate each of the lymph node stations (2, 4, 7, 10) from within the airway.^{MK, PC}
- Fellow is able to accurately describe mucosal findings and any visualized lesions, including size, quality, and differential diagnosis.^{MK, PC}
- Fellow is able to determine the appropriate procedure based upon the clinical, radiographic, and visualized airway features of the case.^{MK, PC}
- Fellow is able to draft a detailed and accurate procedure note.^{MK, PC}

BAL

- Fellow uses techniques to minimize channel contamination.^{PC, MK}
- Fellow properly wedges bronchoscope in the appropriate subsegment based on the preprocedure plan.^{PC}
- Fellow collects BAL fluid into a sterile trap or syringe.^{PC, MK}
- Fellow appropriately calls for serial aliquots of sterile BAL fluid and waits for complete injection before applying suction.^{PC, ISC}

- Fellow instills sufficient lavage for parenchymal sampling (at least 50cc) and is able to anticipate the needed amount of fluid for the required studies and limits procedure to the needed BAL fluid return.

Transbronchial biopsy

- Fellow confirms with the bronchoscopy assistant the immediate availability of resources in the event of hemorrhage that requires intervention (i.e. epinephrine, cold saline, topical thrombin as per local practice/policy). ^{MK,PC}
- Fellow obtains the needed number of specimens and correctly instructs the bronchoscopy assistant on the handling of specimens.
- Fellow understands the local indications for post-procedure chest X-ray.

Transbronchial forceps biopsy

- Fellow properly wedges bronchoscope in the appropriate subsegment based on preprocedure planning.
- Fellow appropriately directs the use of the forceps (if applicable). ^{ISC, PC, MK}
- Fellow utilizes the proper technique of transbronchial biopsy so as to avoid the visceral pleura.
- Fellow is careful to keep the bronchoscope wedged in the subsegment during and immediately after biopsies are performed.

Transbronchial forceps biopsy with fluoroscopy

- Fellow demonstrates understanding of knowledge and practice of radiation safety as required by local practice/policy. ^{MK, PC, SBP}
- Fellow demonstrates with the attending the functions and operations of the fluoroscopy machine (if fluoroscopy in use). ^{MK, PC}
- Fellow directs the fluoroscopist in proper location of fluoroscopy arm and appropriately limits timing of the use of fluoroscopy so as to limit radiation exposure. ^{PC, MK, ISC}

Transbronchial Needle Aspiration (TBNA)

- Fellow is able to determine the most appropriate station and location of needle biopsy based upon imaging and staging preference.
- Fellow utilizes safe and appropriate use of the TBNA needle during biopsy so as to ensure patient safety and reduce the risk to the bronchoscope.
- Fellow demonstrates one of the appropriate techniques for penetrating the bronchial wall with application of suction.
- Fellow communicates with cytopathologist to ensure the amount and location of biopsy specimens is adequate for diagnosis (if applicable).
- Fellow is successful in obtaining an adequate specimen and demonstrates proper handling of specimens (if applicable).

Endobronchial biopsy

- Fellow is able to determine the appropriate biopsy modality (FNA, forceps, brushing) based upon the preprocedure planning. ^{MK, PC}
- Fellow confirms with the bronchoscopy assistant the immediate availability of resources in the event of hemorrhage that requires intervention (i.e. epinephrine, cold saline, topical thrombin as per local policy). ^{MK, PC}
- Fellow is able to appropriately describe the visualized lesion, including size, character, quality, and differential diagnosis. ^{MK, PC}

Endobronchial Needle Aspiration

- Fellow appropriately directs bronchoscopy assistant in the use of the forceps (if applicable). ^{ISC, PC, MK}
- Fellow obtains the needed number of specimens and correctly instructs the bronchoscopy assistant on the handling of specimens.

Endobronchial FNA

- Fellow utilizes appropriate use of the TBNA needle so as to ensure patient safety and reduce the risk to the bronchoscope.
- Fellow obtains the needed number of specimens and correctly instructs the bronchoscopy assistant on the handling of specimens.

Bronchial Brush

- Fellow confirms with the bronchoscopy assistant the immediate availability of resources in the event of hemorrhage that requires intervention (i.e. epinephrine, cold saline, topical thrombin as per local policy). ^{MK, PC}
- Fellow uses safe and appropriate technique to avoid complications (pneumothorax, excessive bleeding).
- Fellow properly stores the brush in the preservative for transport to the cytopathology lab.
- Fellow understands the indications for post-procedure chest X-ray.

Advanced Beginner milestones:

BAL	<input type="checkbox"/> Passed/approved	<input type="checkbox"/> Failed/not approved*
Transbronchial biopsy	<input type="checkbox"/> Passed/approved	<input type="checkbox"/> Failed/not approved*
Endobronchial biopsy	<input type="checkbox"/> Passed/approved	<input type="checkbox"/> Failed/not approved*
Bronchial brush	<input type="checkbox"/> Passed/approved	<input type="checkbox"/> Failed/not approved*

Competency demonstrated for the procedure:

- BAL

- Transbronchial biopsy
- Endobronchial biopsy
- Bronchial brush

***If Not Approved please complete:**

- Needs more procedure training (use reverse for comments and specific list of procedures)
Suggest reassessment after _____ bronchoscopies/months of training/ other.
- Trainee to complete bronchoscopy self-assessment tool.
- Trainee to complete further cognitive assessment including preprocedure planning.

Supervisor (sign): _____