EBUS Skills and Tasks Assessment Tool (EBUS-STAT)

- Items 1-10 may be scored separately.
- A passing score of 100 is expected to reflect competency.
- Scores >100 should initiate instructor-learner feedback
- Assessments may be performed in models or in patients.
- Knowledge of nomenclature (common language) for EBUS imaging can be assessed using the quiz. Recognition of findings can also be assessed during procedures, in which case instructors may prefer to use the quiz as a learning guide.
- The combined use of the 10 items pertains to technical skills needed to climb the learning curve from novice to competent bronchoscopist able to independently perform EBUS and EBUS-TBNA.
- This assessment tool is complementary to other methods of assessment such as practical approach exercises, checklists, logbooks of numbers of procedures performed, and outcomes.

EBUS-STAT 10 Point Assessment Tool

Learner _____ Training Year _____
Faculty _____ Date _____

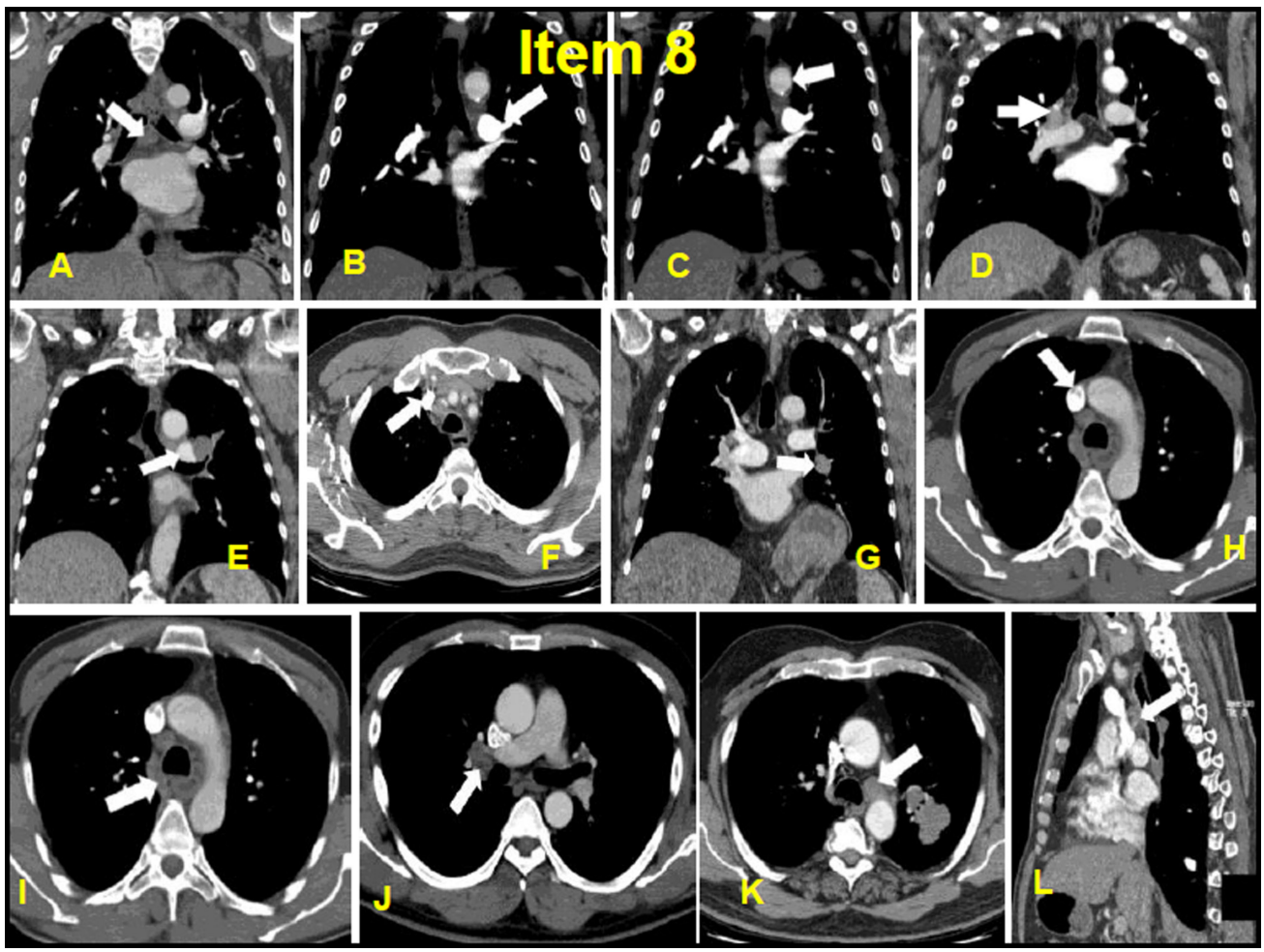
Educational Item* Items 1-10 each scored separately	**Satisfactory Yes/No**
1. Able to maneuver the scope through upper airway into trachea, without trauma or difficulty (5 points for single item tested) ☐ Mouth and Vocal cords ☐ ET Tube ☐ Laryngeal mask airway	Yes / No Score _____ /5
2. Able to maneuver scope using white light bronchoscopy within tracheobronchial tree without trauma (4 points, no partial points) ☐ Scope centered in airway lumen avoiding airway wall trauma	Yes / No Score _____ /4
3. Ultrasound image obtained without artifacts (5 points, no partial points) ☐ Absence of artifacts on image, any target	Yes / No Score _____ /5
4. Identify major mediastinal vascular structures (4 points per item) ☐ Aorta ☐ Pulmonary artery ☐ Superior vena cava ☐ Azygos vein ☐ Left atrium	Yes / No Score _____ /20
5. Identify lymph node station (Select 3 targets, 5 points each) ☐ 2R ☐ 2L ☐ 4R ☐ 10R ☐ 7 ☐ 4L ☐ 10L ☐ 11L ☐ 11Rs ☐ 11Ri	Yes / No Score _____ /15
6. Able to operate EBUS processor (2 points each item) ☐ Gain ☐ Depth ☐ Doppler	Yes / No Score _____ /6
7. Performance of EBUS-TBNA (1 point each, target 15 points) ☐ Advance needle through working channel (neutral position) ☐ Secure needle housing by sliding the flange ☐ Release sheath screw ☐ Advance and lock sheath when it touches wall ☐ Release needle screw ☐ Advance needle using jab technique ☐ Visualize needle entering target node ☐ Move stylet in and out a few times ☐ Remove stylet ☐ Attach syringe ☐ Apply suction ☐ Pass needle in and out of node 10-15 times ☐ Release suction ☐ Retract needle into sheath ☐ Unlock and remove needle and sheath	Yes / No Score _____ /15
8. Image analysis: CT scans (1 point each, target 10 points) ☐ Image 1 ☐ Image 2 ☐ Image 3 ☐ Image 4 ☐ Image 5 ☐ Image 6 ☐ Image 7 ☐ Image 8 ☐ Image 9 ☐ Image 10	Yes / No Score _____ /10
9. Image analysis: EBUS views (1 point each, target 10 points) ☐ Image 1 ☐ Image 2 ☐ Image 3 ☐ Image 4 ☐ Image 5 ☐ Image 6 ☐ Image 7 ☐ Image 8 ☐ Image 9 ☐ Image 10	Yes / No Score _____ /10
10. Decision-making tasks: (2 points each, target 10 points) ☐ Image 1 ☐ Image 2 ☐ Image 3 ☐ Image 4 ☐ Image 5	Yes / No Score _____ /10

* The combined use of the 10 items tests competencies needed to climb the learning curve from novice to advanced beginner to intermediate to competent bronchoscopist able to independently perform EBUS-TBNA.

FINAL GRADE PASS FAIL **SCORE** _____/100

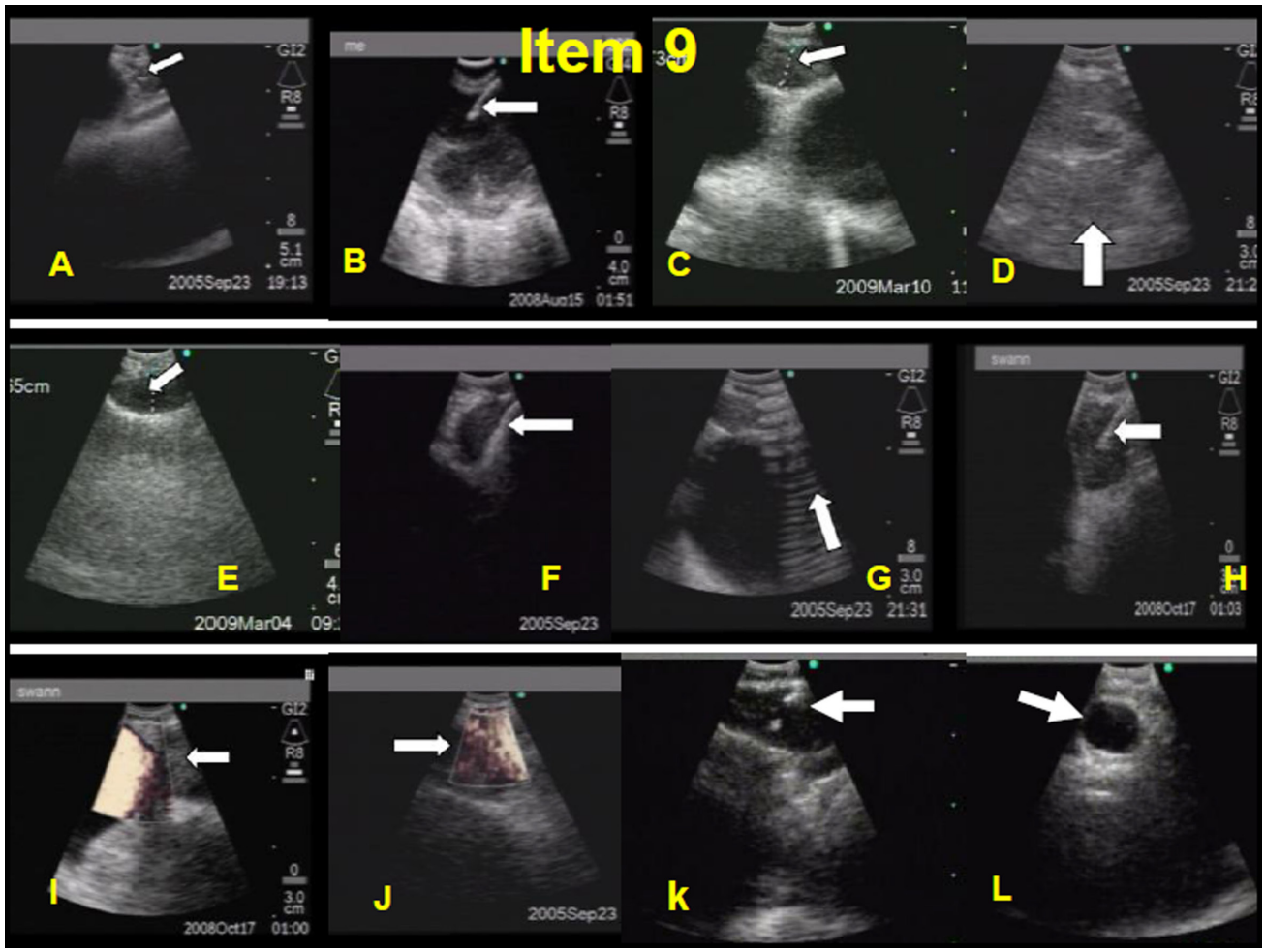
EBUS-STAT Questions

NAME _____



ITEM 8: Match the photo (A-L) to the corresponding 10 CT scan descriptions (Only one response per description)			
_____ Superior vena cava adjacent to 4R	_____ Inominate vein adjacent to 2R	_____ Pulmonary artery adjacent to 4L	_____ Aortic arch adjacent to 4L
_____ Azygos vein adjacent to 4R	_____ Station 7 adjacent to left atrium	_____ Station 11L with adjacent lung	_____ Station 10R
_____ Station 4L in axial view	_____ Pulmonary artery adjacent to 10L	NO RESPONSE	

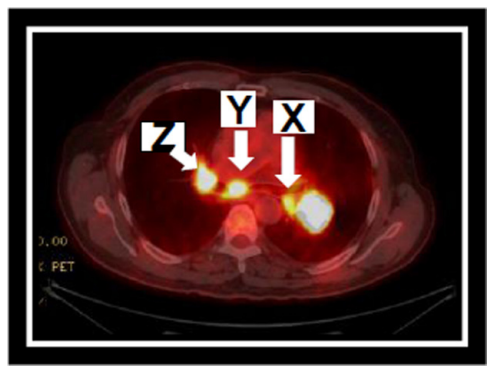
EBUS-STAT Questions



ITEM 9: Match the photo (A-L) to the corresponding 10 EBUS views (Only one response per description)			
_____ Station 4R adjacent to pulmonary artery superior vena cava and ascending aorta	_____ Needle penetrating through and through	_____ Needle missing target node	_____ Station 4L adjacent to aorta and pulmonary artery
_____ Station 4L adjacent to pulmonary artery	_____ Needle within lymph node	_____ Normal lung	_____ Reverberation artifact
_____ Station 7 adjacent to left atrium	_____ Hilar node adjacent to normal lung	NO RESPONSE	

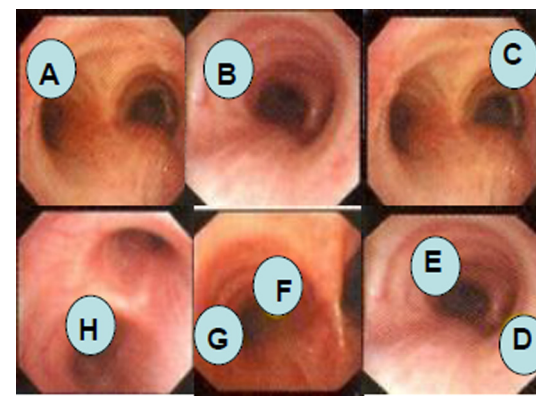
ITEM 10: Choose **One** best answer for each question

1. Three FDG avid nodes are noted on Fusion PET-CT in a patient with a Left Upper Lobe PET positive mass. Which node (x, y or z) should be sampled first ?



Answer _____

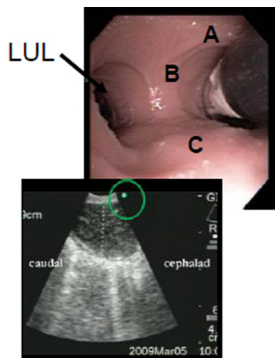
2. Where is the node located (needle insertion site A, B, C, D, E, F,G, or H) using white light bronchoscopy ?



Answer _____

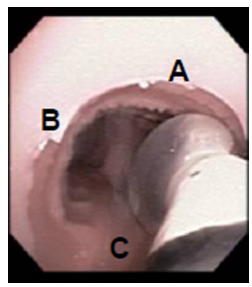
ITEM 10: Choose **One** best answer for each question

3. To sample level 11L, point the scope towards (A), (B), (C)



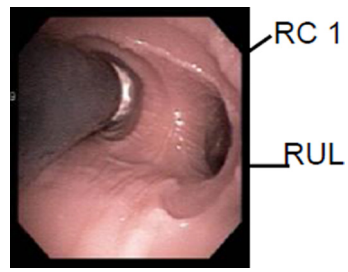
Answer _____

4. When sampling level 4R, consider pointing the scope towards A, B or C).



Answer _____

5. The Interlobar Pulmonary Artery is most likely seen when sampling level (A) 10R, (B) 11R, or (C) 12R



Answer _____