SCOPING TECHNIQUES

FEES COMPETENCIES TO ATTAIN DURING TRAINING

Name: **Date:**

A. Technical Skills (assessed during FEES course)

	Competency Displayed	Strong	Average	Needs Improvement	Assessors Initials
	Handles scope with care; doesn't 'kink" the flexible part				
	Able to administer topical anesthesia and decongestant correctly				
	Able to pass with correct hand position on left or right side of patient				
	Anchors with finger on the face without obstructing patient's eyes or mouth				
	Able to pass along the floor of nose at reasonable speed				
	Able to move from nasopharynx (VP port) to home position w/out touching the lateral walls or base of tongue with good speed				
	Able to maintain a good view in home position and to return to home position frequently				
	Able to scan the entire HP to view anatomy, secretions, residue, or medical pathology				
	Able to pass to the laryngeal vestibule and view the subglottic shelf w/out the epiglottis, AE folds, or arytenoids				
	Able to pass quickly to the laryngeal vestibule, scan the vestibule for penetration or aspiration and withdraw quickly				
	Able to pass to the laryngeal vestibule and touch the arytenoids for sensory testing, without touching the other structures.				
	Able to withdraw the scope completely w/ the thumb released, smoothly and at a comfortable speed				

B. Anatomic- Physiologic Assessment: Ability to elicit the non-swallow tasks by demonstration and observe the response

	Competency Displayed	Strong	Average	Needs Improvement	Assessor's initials
Velopharyngeal closure	Repeated 'puh puh', 'fifty fifty', etc.				
Base of tongue	"Paul is tall", etc.				
Handling of Secretions and swallow Frequency	Observe inside/outside laryngeal vestibule				
Laryngeal: breathing rate, pattern if abnormal	Observe with good view				

Laryngeal : VF mobility	Prolonged 'ee'; repeated 'he he he'; and/or alternate sniff and 'ee'				
Laryngeal: Elevation of arytenoids	Glide up in pitch to very high note and hold it				
Laryngeal: glottic closure	Hold breath, cough, grunt, (if breath hold does not adduct VFs, elicit other task to judge)				
Laryngeal: Sustain breath glottis closure for 5 seconds	Hold breath to the count of 7 (about 5 sec)				
Pharyngeal wall medialization	High pitched, strained, "ee"				
Epiglottic Retroflexion	Observe this during liquid or food trials (light set correctly)				
C. Handling the Scope during Liquid and Food Trials					
	Competency Displayed	**Strong**	**Average**	**Needs Improvement**	
Food dye	Use blue, green as needed and white food dye or barium in liquid				
Before the swallow	Announce the bolus loud and clear				
Before the	View at home position to see spillage optimally				

Swallow					
During the Swallow	Withdraw the scope a little if barium used				
After the swallow	Pan around to view all residue;				
After the swallow	Wait for spontaneous clearing swallow				
After the swallow	Move down to vestibule quickly to view penetration/ aspiration; withdraw as soon as appropriate				
After the swallow	If optimal view not obtained at any time, repeat the trial				

Notes:

LET'S LOOK AT SOME STUDIES AND CRITIQUE FOR TECHNIQUE

SPECIFICS

- 1015: blurry yet continued
- 1044: view occluded; what to do? Epiglottis and NGT in the way – interesting;
- 2046 - For a lot of the swallows where you were gunked up, pull up to the nose quickly and clean the scope rather than ask her to swallow again - she may clear the bolus with a dry swallow and we won't know her true status LPR at 1:58 PAS = 6 w/2 oz thin liquid
- 2048 – add more green; positioning too high. Touch test – no directions
- 3055 – too high

PRACTICE SCORING VIDEOS:

*EDEL - LAT MEDULLARY STROKE

PRACTICE SCORING VIDEOS: MOSTLY ICU PATIENTS/ EXTUBATED

*1010 – ASPIR 10.39 – PENETRATION; LPR

*2018 – DELAY AND WEAK

*2033 – PERSISTING PENETRATION

*3040 – ASPIR DUR DELAYED COUGH

*4019 – LONG DELAYS

*8004 – DELAY ASPIR THIN

DYSPHAGIA DUE TO INTUBATION?

- Evidence from ICU intubated/extubated patients with no premorbid dysphagia: Clinical Trial from Denver; publication by Scheel; Brodsky study

COMMON PATTERNS OF DYSPHAGIA IN THE ICU -- IF NO PREMORBID DYSPHAGIA

Scheel et al, 2015 (Ann Oto Rhin Laryn)

- 59 patients FEES within 72hrs of extubation (3 days)
- Descriptive study: what were patterns/ frequency of aspiration/ predictors of aspiration

RESULTS

- Penetration/ Aspiration
  - If <24 hrs post-extubation: 36% penetrated; **22% aspirated**
  - If >24 hrs post extubation: **60% penetrated/aspirated**
- When did aspiration occur?
  - Before or during swallow
    - What does this suggest??

OTHER SWALLOW CHARACTERISTICS

- ***Longest mean spillage time = 6.7 sec***
- Most frequent residue score= 1 (0 – 3)
- Most frequent secretions score =1 (0 – 3)
- *Sensation score =1* (0 – 2)
- Laryngeal pathology:
  - **Significant arytenoid edema – significant association with PAS**

CONCLUSIONS

- High frequency of dysphagia after prolonged intubation in patients with no pre-existing dysphagia.
- Longer spillage time but only mild problem with pharyngeal clearance
- Laryngeal edema signif associated with aspiration

CLINICAL TRIAL JUST COMPLETED FROM DENVER

- Mark Moss, MD = PI. U Col (Pulmonologist)
  - Boston Med Ctr, U Colorado, Yale, Stanford participated
- Bedside clinical eval results compared to FEES (done 1 hour after bedside exam). How sensitive? Do we need FEES?
- Initial results = YES, FEES adds info not seen in the BSE