

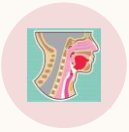
BASICS OF FEES

HISTORY OF FEES

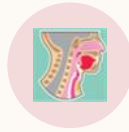
• SAWASHIMA & HIROSE (1968) –NEW LARYNGOSCOPIC TECHNIQUE BY USE OF FIBER OPTICS JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA J 43(1) 168 JAN;43(1):168-9

• LANGMORE SE, SCHATZ K, OLSEN N. FIBEROPTIC ENDOSCOPIC EXAMINATION OF SWALLOWING SAFETY: A NEW PROCEDURE. DYSPHAGIA. 1988;2(4):216-9. DOI: 10.1007/BF02414429. PMID: 3251697.

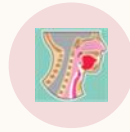
BENEFITS



FEES is one objective imaging study that can be used to assess for oropharyngeal dysphagia



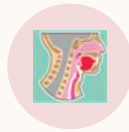
Direct visualization of the pharynx and larynx during the assessment



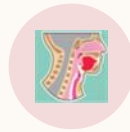
Can be a stand-alone assessment or complimentary to a Modified Barium Swallow study



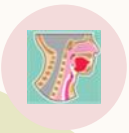
The most sensitive objective study for the assessment of post swallow residue



It can be used as a tool to identify and practice various postural changes and compensatory strategies with visual biofeedback



Generally, well tolerated to allow for a longer duration study. Can be used with a meal assessment



Frequency of use can highlight improvements in function over the course of therapy intervention

REQUIREMENTS

Clinical Competency

State Licensure rules

Patient's verbal consent

Patient's tolerance of the scope

INSTRUMENTATION

Flexible laryngoscope

Monitor

Recording

Various Consistencies

Food dye

+/- oxymetazoline, lidocaine,
lubricating jelly

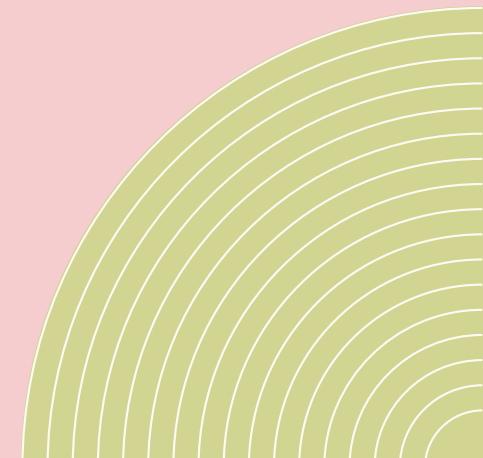
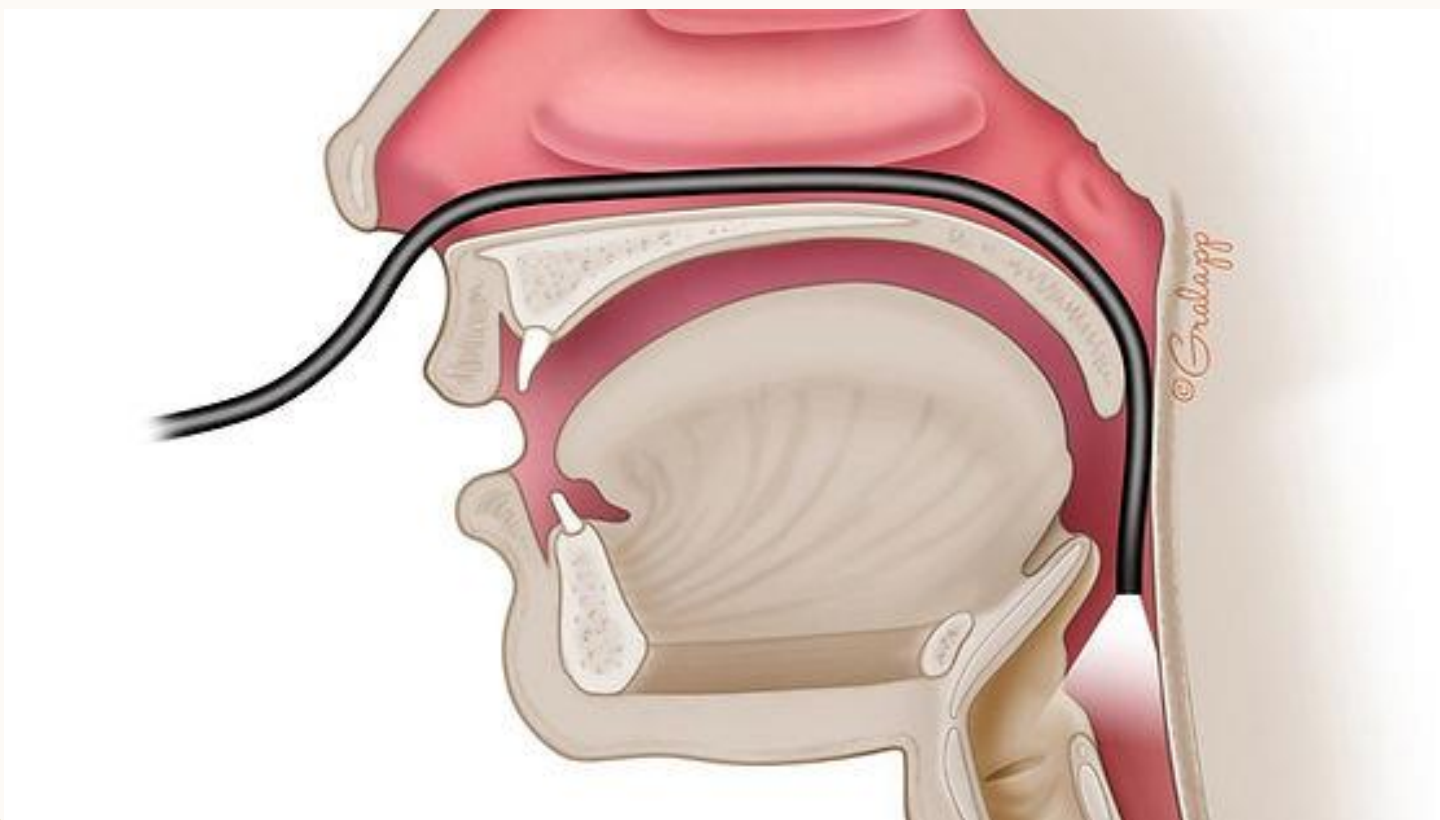


COLORING PO TRIALS

High Color Contrast with opacity
Green and/or Blue dye
Additional white dye for opacity

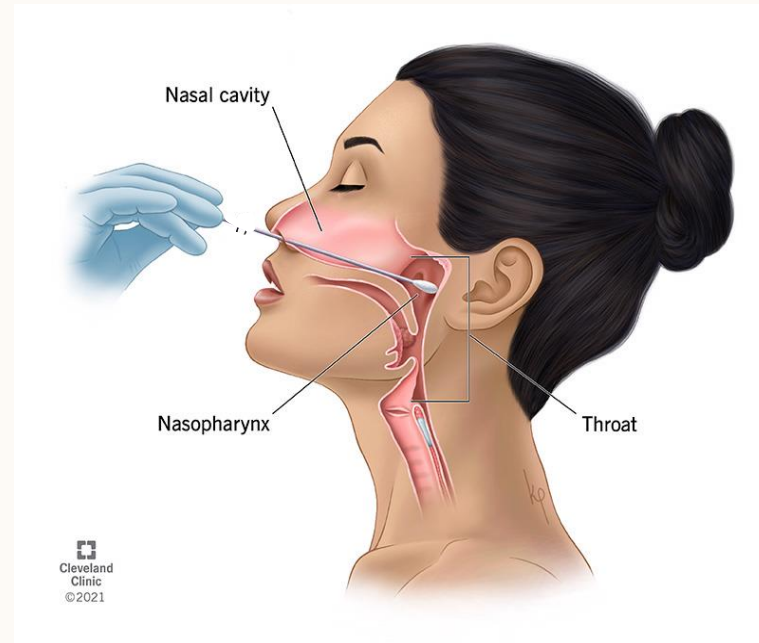


KNOW YOUR PATH



NASAL PREPARATION

- 2% viscous lidocaine
- Lubrication jelly
- Oxymetazoline spray

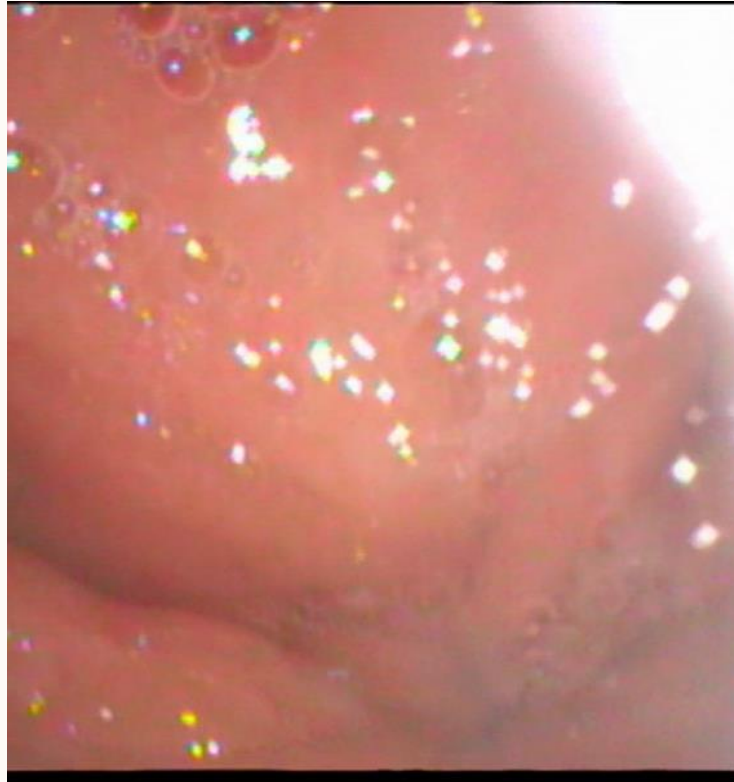
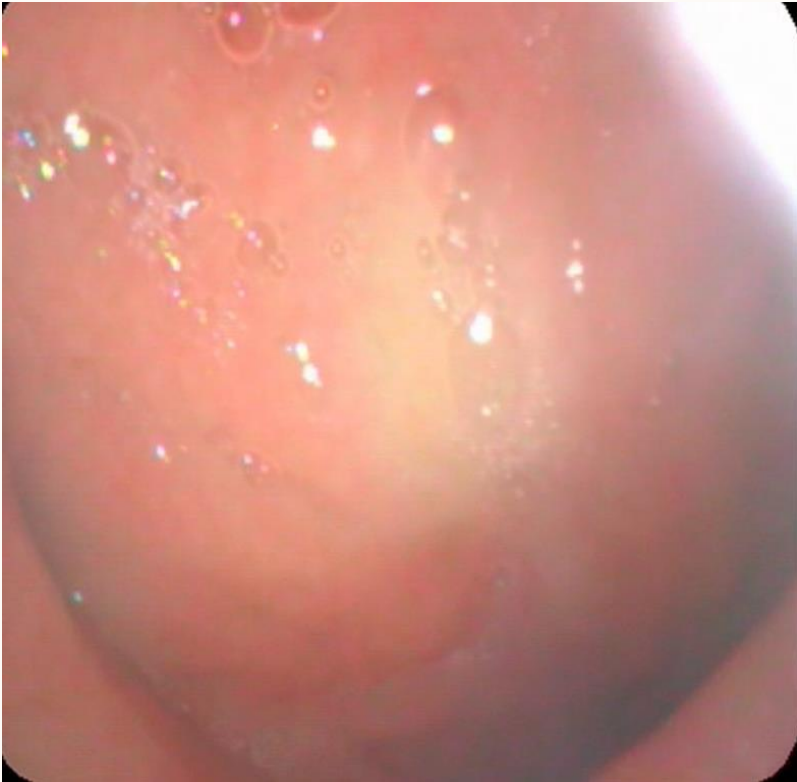


NASAL PASSAGE

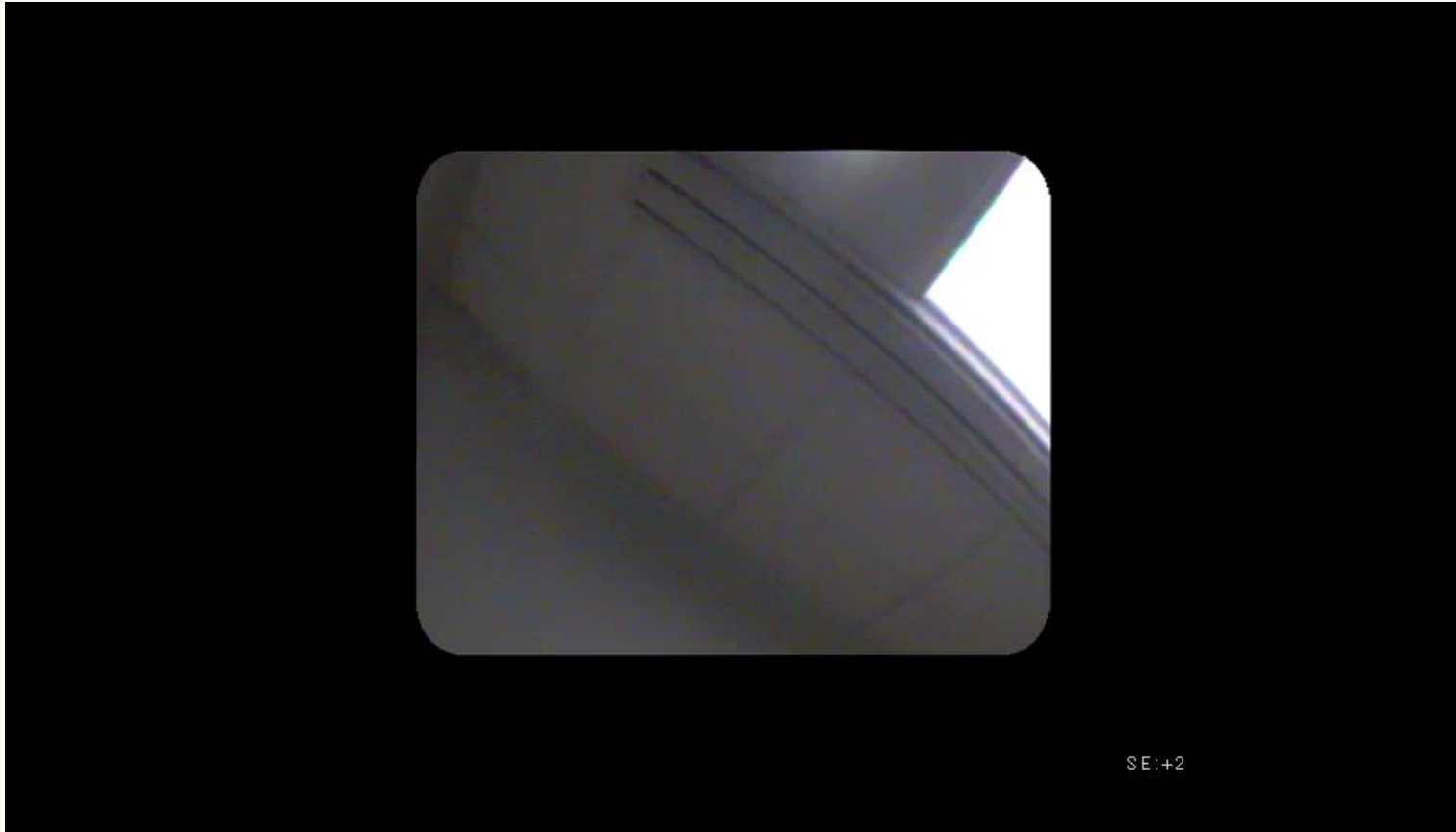


SE:+2

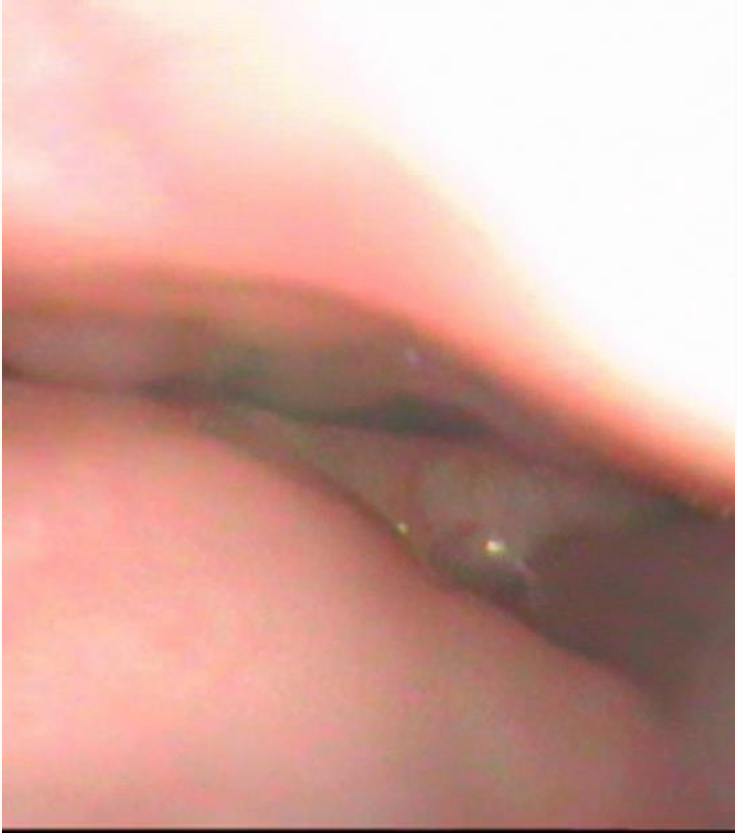
VELOPHARYNGEAL PORT



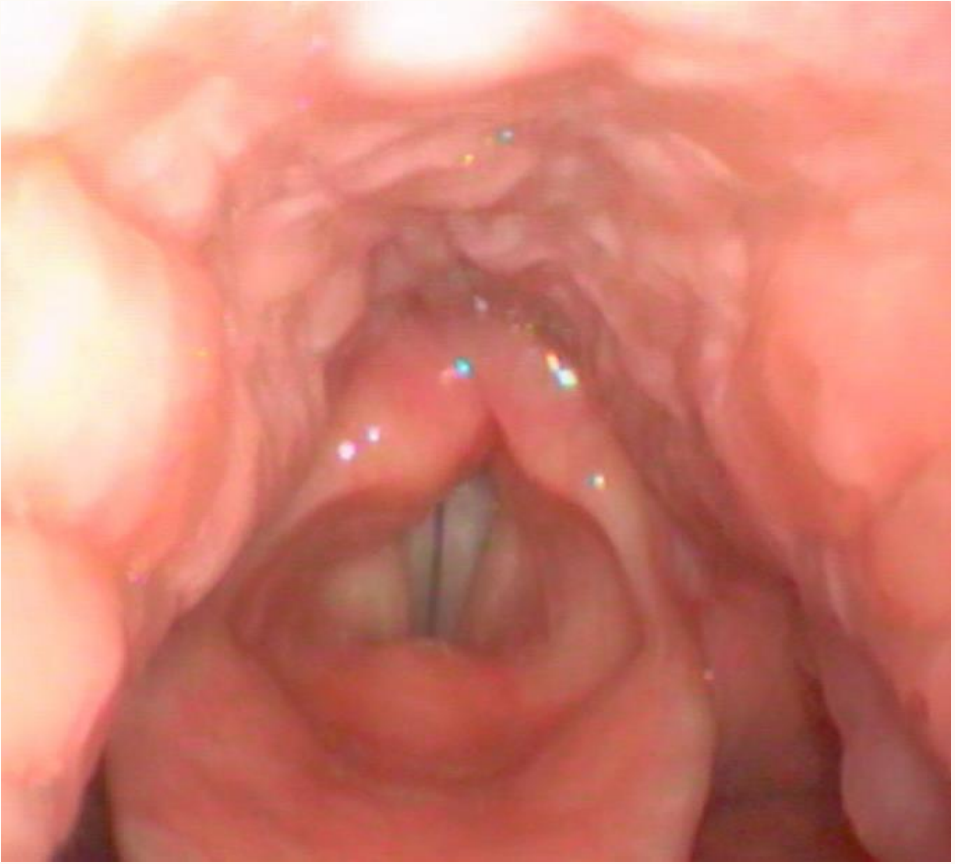
INSUFFICIENT VP CLOSURE



BASE OF TONGUE RETRACTION



LATERAL WALL MOBILITY

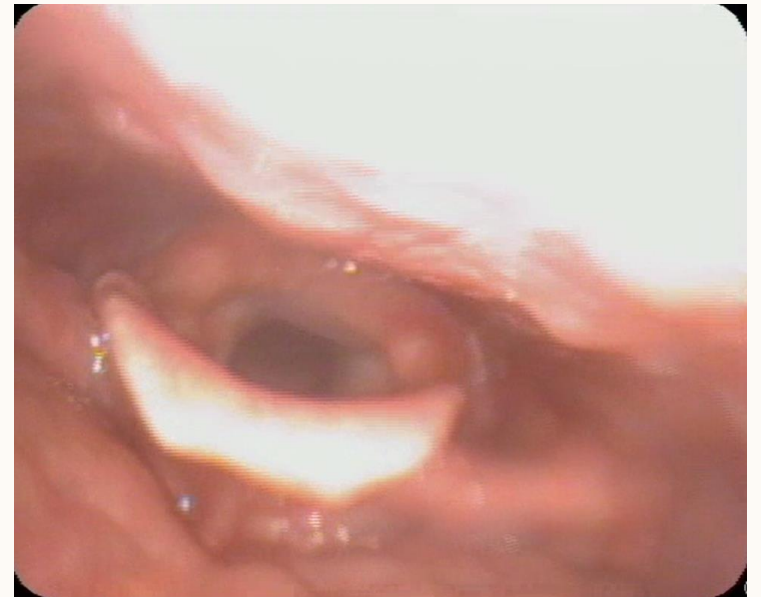
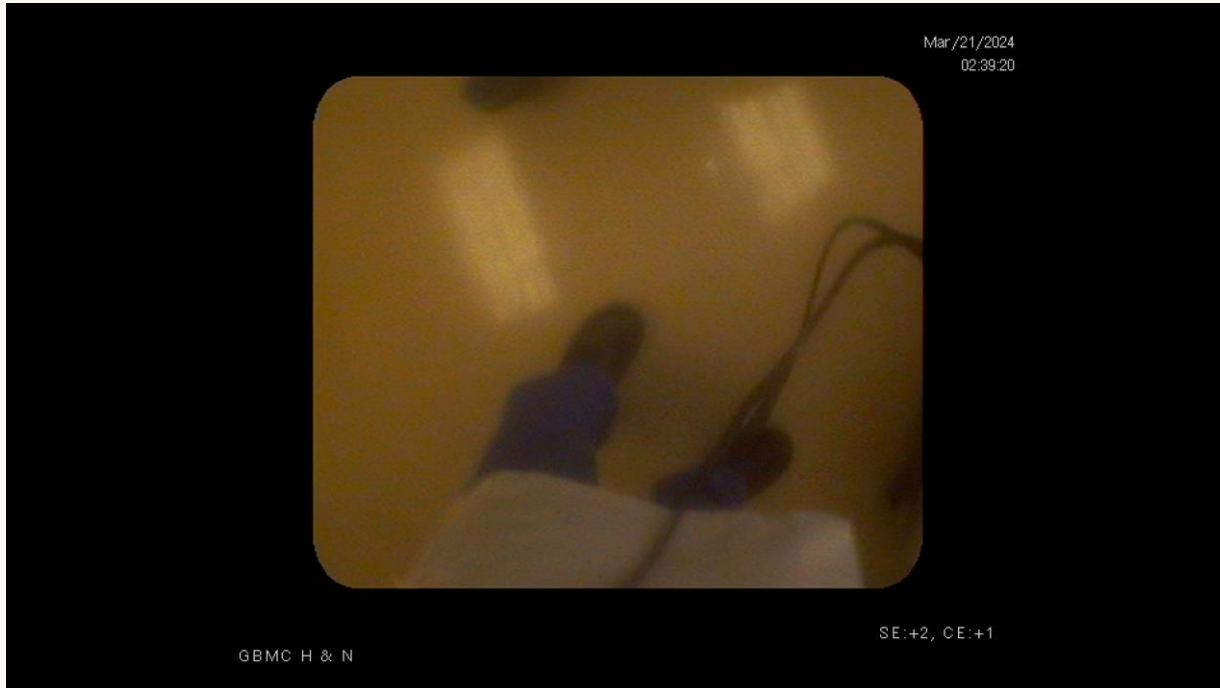


LARYNX AND HYPOPHARYNX

- True Vocal Folds
- False Vocal Folds
- Arytenoids
- Interarytenoid
- Aryepiglottic Folds
- Epiglottis
- Pyriforms



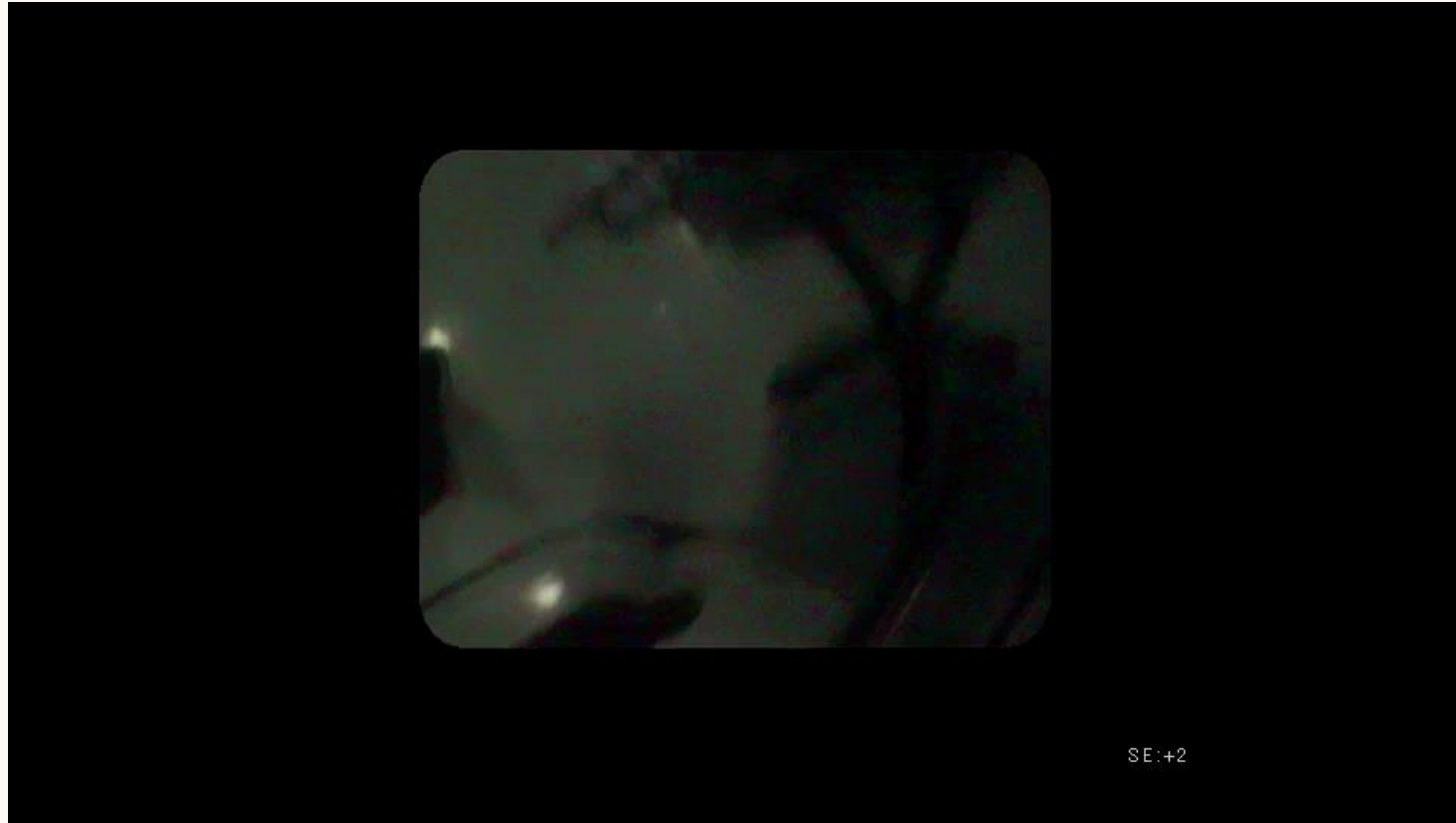
SECRETIONS RATING



PO TRIALS SELECTION

- Single Sip of thins
- Serial Sip of thins
- Thickened liquids as needed
- Puree (thin vs thick)
- Semi-solid or minced/moist
- Solid
- Mixed Consistency

TIMELY SWALLOW



DELAYED SWALLOW

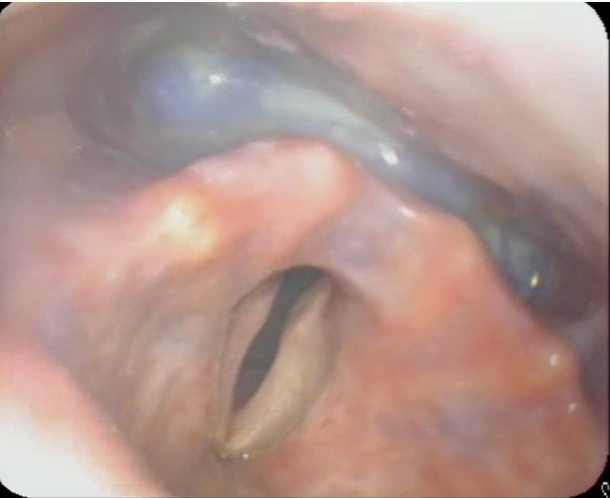


- Identify the location of the head of the bolus prior to swallow initiation
- Swallow timing can be dependent on bolus type and patient age
- Neurological Dx can impact swallow initiation
- Impairment of sensation can impact swallow initiation
- A delay in swallow without other findings is not a pathology

WHITE-OUT AT THE HEIGHT OF THE SWALLOW



PENETRATION AND ASPIRATION



PHARYNGAL RESIDUE

- Vallecula = decreased tongue base retraction, impaired epiglottic inversion
- Pyriforms: Inadequate pharyngeal shortening, PES distention/duration
- Postcricoid region= Inadequate UES/PES opening
- Pharyngeal walls= reduced pharyngeal squeeze
- Laryngeal surface of the epiglottis or aryepiglottic fold-rim= delayed/reduced epiglottic inversion
- In the larynx= Inadequate, late airway closure

RATING SCALES

- Yale Pharyngeal Residue Severity Rating Scale (YPRSRS)
- The Pooling Score
- Boston Residue and Clearance Scale (BRACS)
- Mansoura Flexible Endoscopic Evaluation of Swallowing Residue Rate Scale
- Penetration-Aspiration Scale (PAS)
- Dynamic Imaging Grade of Swallowing Toxicity (DIGEST-FEES)
- Visual Analysis of Swallowing Efficiency and Safety (VASES)

THERE IS A PLACE FOR FEES IN EVERY SETTING

- Acute Care
 - Post-intubation
 - Stroke
 - Difficult to transport
- Rehab
 - Meal assessment
 - Repeated exam
 - Difficulty transporting out for MBS
- Outpatient
 - Pre/Post exams
 - Biofeedback during treatment

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