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GSHA Convention Presentation

Flexible Endoscopic Examination of Swallowing:

Clinical indication for Dysphagia Management Throughout the
Spectrum of Care

Relevant Financial Disclosures

- I am currently employed as the Agency Administrator for Integra Rehabilitation and I provide Flexible Endoscopic Examination of Swallowing (FEES) for Integra Rehabilitation's customers.
- Integra Rehabilitation is a sponsor at this convention.

Relevant Non-Financial Disclosures

- Past-President of GSHA and have held various other positions both elected and appointed within the organization since 2004.

My first exposure to “Flexible Endoscopic Examination of Swallowing” was at GSHA in the early 2000s.

- Nancy Swigert, PhD, CCC-SLP was an invited speaker and in the content of her talk she mentioned that “Flexible Endoscopic Examination of Swallowing” was a tool that was –
 - Emerging
 - Recently added to our ASHA Scope of Practice
 - Not quite mainstream
 - Had lots of potential and measured “something”, but we we time what that “something” was that we were measuring.
 - I tucked this away in the back of my mind...



It has been a good year for FEES in my health system...



Integrity
The Cornerstone
of our Service

- Servicing around 90 locations in Georgia
- We have made FEES "instantly accessible" for all the therapists through out our system
- Currently employing two full time, one PRN and have started the training process for a third SLP that will be part-time initially, but transition to full time.
- As a system, we have embraced that "on demand" visualizations for swallowing is the right thing to do from a clinical standpoint.

Continued...



Integrity
The Cornerstone
of our Service



- Increased interdisciplinary collaboration with advanced practitioners, nurses and respiratory therapists buildings.
- Fully able to assist trach/vent patients back to PO status in our respiratory rehab oriented locations
- Able to better judge progress by being able to offer multiple visualizations for patients
- Able to assist our system by decreasing altered diets, decreasing treatments related to dysphagia and helping to keep residents out of the hospital

Starting a FEES Program in Your Healthcare Setting: The Benefits and Barriers

ASHA Convention, November 19, 2016 Philadelphia, PA

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FEES POSTER ASHA 2016.pptx Open with Microsoft PowerPoint




**Starting a FEES Program in Your Healthcare Setting:
The Benefits and Barriers**


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Disclosures: Edgar V. (Vince) Clark is the administrator for the Integra Rehabilitation Agency which provides FEES throughout the state of Georgia. Brenda Arend has no conflict of interest, financial or otherwise.



- Cost related benefits**
- Identifies patients with aspiration risk, decreasing cost of treating pneumonia
- Also, can decrease cost of thickeners and tube feeding when patients are placed on appropriate diets



- MANY patient benefits, including:**
- no radiation exposure,
- available to frail patients,
- viewing actual structures,
- able to assess upper airway management,
- no transport of patient required
- can use as a clinical feedback tool

When talking to the reps, be sure to ask about:


- Warranty and repair information
- If the system includes any training about the system as well about performing/interpreting FEES studies
- If software upgrades are included
- Estimated life of the system

Questions to ask potential trainers:

- Cost and what is included?
- How many passes of "normals" in the course?
- Will the training equip you for FEES in your setting?
- Does training include interpretation of what you see?
- Does training include how to clean your scope?

After training you'll need additional supervised passes on patients. Develop a plan for this. Consider SLPs that can come to you or you can do passes on their patients. MDs at your site may be able to supervise your "patient passes".


- Learn what your site requires for cleaning/sterilization of the scope.** This is crucial. You can't use a scope that you can clean. Look at the below section on cleaning scopes.
- Approvals needed?** In a hospital you may be required to be "privileged" (cleared) to perform FEES. The FEES program itself may need to be "credentialed" (approved) by a hospital committee. Talk to your director or medical administration to explore what may apply for you.
- Seek out payor sources as well as capital resources to purchase the equipment and training.** Hospital guild or foundation, community organizations, or just justification for including it in next year's budget. Many FEES device companies will help you with the numbers you need to show financial benefit to your administration and patient benefit. Recruit 2-3 "physician champions" to write letters of support of a FEES program.
- Know your state's regulations!** Some states have them, some states don't <http://www.asha.org/Advocacy/state/States-with-Specific-Endoscopy-Requirements/>



States with FEES regulations

Considerations when shopping for a FEES system (aka: things to ask the FEES vendor about):

- What is your budget?** Budget will determine how many extras you can include such as a cart, extra scope, chip tip technology, stroboscopy, memory/storage of data/videos in the device
- How portable does the system need to be?** FEES systems come as light weight as a laptop computer or can be large computers and light sources on a cart that is difficult to maneuver. Consider how much portability you need in your setting.
- See our List of Vendors:** Tell the vendor your budget, setting and needs and they should be able to help you get started.
- Request an in-person demonstration from FEES vendors**
- Ask around for opinions:** Social media, SIG13, and colleagues are all good resources to ask others about what systems they like any why. Pay extra attention to those who are in your same type of setting.



- Hospital:** find who cleans scopes and tell them of your plans for FEES. You will need to purchase a scope that is compatible with their sterilization or disinfecting procedures.
- SNF or clinic:** You will follow the manufacturer's recommendations for how to clean/sterilization between patients. Pay attention to the equipment needed because you will more than likely be doing the cleaning yourself.
- Additional equipment needs:** containers for transport of clean and dirty scopes, enzymatic clothes, possibly disinfectant solution. Look into the cost of these materials and how to purchase and store them.

Develop policy and procedures including training, competencies, how orders are received, the evaluation, transporting the unit and cleaning. Consider how you will document and bill your evaluation. Develop a note template you can use in an electronic medical record. Can you store images in the electronic chart?

Why Flexible Endoscopic Examination of Swallowing?

- Evaluation of Oropharyngeal Dysphagia
 - Determine potential anatomic / physiologic cause of dysphagia
 - Secretions management
 - Swallowing function for food and liquid
 - Determine response to therapeutic maneuvers and interventions to improve swallow

How does Flexible Endoscopic Examination of Swallowing Work?

- Laryngoscope is passed through nose to view larynx and other structures
- Patient completes various tasks to evaluate sensory and motor status
- Food and liquid are trialed, as indicated
- Swallow functions / safety evaluated
- Interventions determined

Advantages of Flexible Endoscopic Examination of Swallowing.

- Can be performed at bedside (no radiation)
- Instant determination of foods that can be safely ingested
- Patient fatigue better controlled / assessed
- Excellent visualization of swallow safety / function
- Treating Speech-Language Pathologist may be present
- Family / Caregivers may be present

Contra-indications of Flexible Endoscopic Examination of Swallowing

- Severe movement disorders and/or severe agitation
- Base of skull / facial fracture
- Sino-nasal and anterior skull - based tumors / surgery
- Nasopharyngeal stenosis

FEES COMPARED TO MBSS

Both are now considered “gold standard” examinations.

FEES has repeatedly demonstrated a sensitivity equal to or greater than MBSS in determining whether a patient is exhibiting penetration, aspiration, delay in swallowing initiation and pharyngeal secretions that cannot be detected during an MBSS.

FEES COMPARED TO MBSS

- They are just tools for the evaluation of swallowing
- They are as good as what your clinical question is

FEEES Safety

SAFETY OF FEEES: AVIV, MURRY,
ZSCHOMMLER, COHEN, AND
GARTNER(2005)

Prospective study of 1340 consecutive FEEESST
exams over 4 1/2 year period

Outpatients and inpatients

Results:

- 1 incidence of epistaxis = 0.07%
- NO episodes of airway compromise

FEES Safety

WARNECKE, TEISMANN, OELENBERG,
HAMACHER, RINGLESTEIN, SCHABITZ,
AND DZIEWAS (2009)

Prospective study of FEES exams in 300 acute
stroke patients

1 year period

Neurologist + SLP

Safety parameters and patient discomfort
rating

Continued...

Results:

- NO airway compromise
- NO decrease in level of consciousness
- NO symptomatic brady/tachycardia
- NO laryngospasm
- NO epistaxis that required special treatment

Continued...

6% incidence of self-limiting epistaxis >80% patients reported excellent

Well tolerated and safe procedure with SLP + neurologist on acute stroke unit

Possible reason for increased incidence of epistaxis may be due to characteristics of the acute stroke population

FEES is a safe procedure in the hands of a trained SLP

Multiple researchers have looked at the rate of complications

- Less than 1% adverse effects
- None of the complications were serious
- Epistaxis and vasovagal episodes were most likely.



HISTORY OF FEES

*FEES HAS BEEN UTILIZED TO DIAGNOSE
SWALLOWING DISORDERS SINCE 1986*

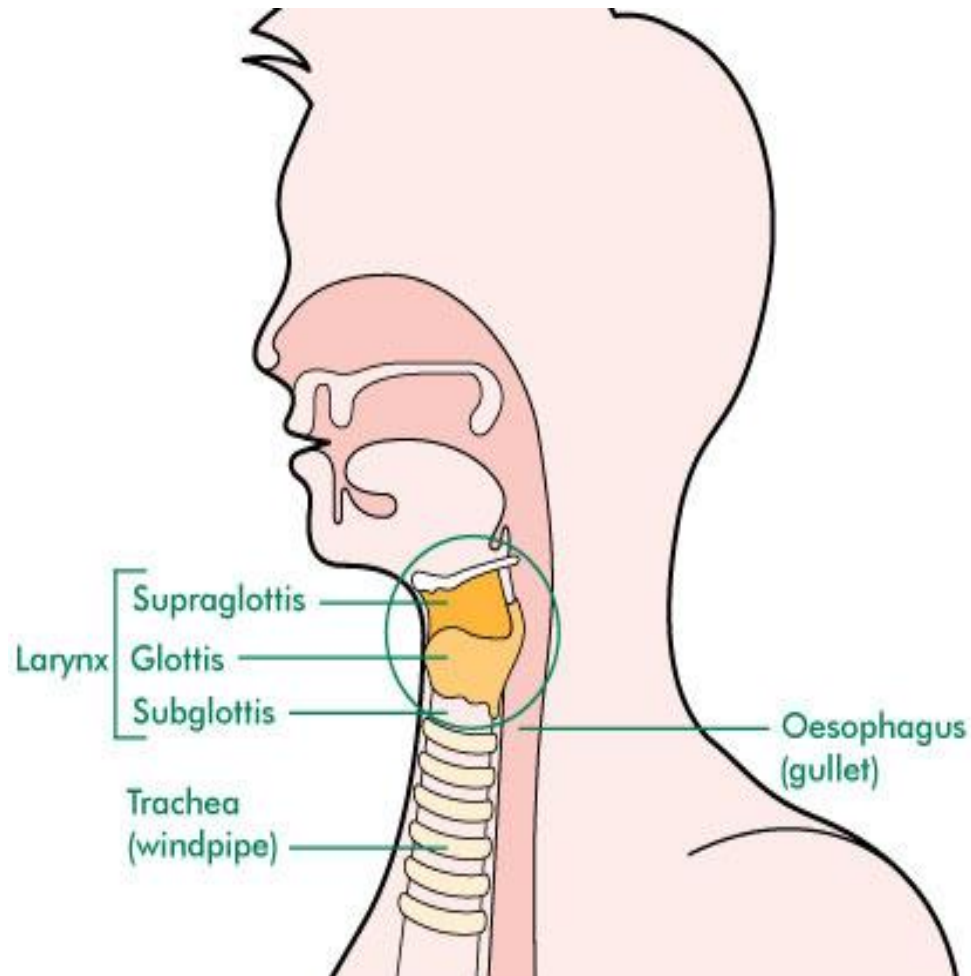
Susan Langmore, Ph.D., and her research team coined the term FEES in 1986 and published the first data demonstrating the effectiveness of the procedure in 1988.

In a question and answer session for SpeechPathology.com in 2007, George Charpied, M.S., CCC-SLP made the following evidence based practice observations

- Where FEES equipment is available, it is supplanting the subjective bedside swallowing assessment in the acute care setting. (*Bastian, 1993, Dysph. 8: 359; Langmore and Logeman, 1991, AJSLP 1:13*)
- Limitations of PHG (MBSS) include difficulties with patient cooperation, limited resolution for micro-aspiration, and the exposure to radiation. For these reasons flexible endoscopic examination of swallowing (FEES) is effectively competing with PHG as the gold standard for evaluation swallowing function (*Bastian, 1993, Dysph. 8: 359; Langmore and Logeman, 1991, AJSLP 1:13*).
- There is no radiation exposure, patient's can be seen in their rooms, and it is excellent at discerning the minute aspirations not visualized with fluoroscopy.

I have come to realize that when using FEES, we are “assessing” the functional aspects of the upper airway...

“During swallowing, the pharynx changes from an airway to a food channel.”



Matsuo K, Palmer JB. Coordination of Mastication, Swallowing and Breathing. *The Japanese dental science review*. 2009;45(1):31-40. doi:10.1016/j.jdsr.2009.03.004.

Grasping the impact that we can have on upper airway function opens up opportunities for collaboration with other professionals...

- Assessing in trach and vent
- Assessing in Long Term Acute Care Hospitals
- More consistent feedback on progress in out patient therapy
- Providing in-house swallow assessments in Skilled Nursing Facilities
- Assessing proper placement of any nasal tubes or orally placed tubes as part of the FEES procedure
- Screenings during FEES for reflux, lesions, physiologic/anatomical abnormalities

Our knowledge with FEES assessments makes us more valuable to the team...

- FEES usage is only going to increase
- The technology will continue to become easier and more convenient
- SLPs will be trained earlier and FEES will most likely become an "expected" skill to work in healthcare similar to the ability to perform clinical swallow examinations and modified barium swallow studies
- We MUST maintain a high level of competence in our training or risk losing this valuable tool to other providers with an interest in swallowing disorders



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HHS

ASHA is clear about what will make SLPs in Acute Care settings valuable now and in the future...

What This Means for SLPs and Audiologists?

- Hospitals will be the most common entity to manage rehabilitation services.
- Hospitals will be motivated to limit rehabilitation services to those that will reduce costs in overall care, including prevention of hospital readmissions.
- Dysphagia services will be in greatest demand of all services rendered by speech-language pathologists (SLPs)
- Motivation for speech-language services will be postponed until after the 30-day post-discharge date. This is similar to historical trends in acute care hospital prospective payment practices through discharge.
- SLPs and audiologists need to demonstrate to hospital administrators the potential value of their services in every chronological stage of care.

<http://www.asha.org/practice/Health-Care-Reform/Post-Acute-Care-Bundling/>

Neither test's purpose is to “detect aspiration”...

- FEES and the MBSS are essential in the determination of WHY someone is aspirating. Aspiration is the consequence of a malfunctioning system.
- Never would a Physical Therapist do any exam just to watch the patient fall down.
- When patients aspirate on an MBSS or FEES many more factors go into determining if they remain safe for PO intake
- What did the aspirate? How much? How often? What is the general health of the patient like.

Ashford, J.A. (2013). FEES: Instrumental Dysphagia Assessment Training Manual. Nashville, TN: Author

Langmore, S. (2001). Endoscopic Evaluation and Treatment of Swallowing Disorders. New York: Thieme

Clinical utility of the modified barium swallow. Dysphagia. 2000 Summer;15(3):136-41.
Martin-Harris B1, Logemann JA, McMahon S, Schleicher M, Sandidge J.

My clinical experience,
training, and particular
swallow examination allows
me to make accurate
determinations about the
underlying cause and
severity of my patients
dysphagia... so there.

CSE (Clinical Swallow Exam) vs An Instrumental

- Clinicians must examine their own long held beliefs to make sure they have incorporated new insights from emerging scientific literature
- Most importantly, clinicians must be willing to let go of beliefs and familiar actions that are no longer sufficient to meet the demands of clinical practice.
- In other words, “Change is Good”
- Simply put: All studies that compare the CSE to FEES/MBSS determine that the CSE alone misses a high rate of those that are aspirating.
- The CSE doesn’t do the job it claims to do.

Hoffman L. Prologue: Improving clinical practice from the inside out. Lang Speech Hear Svs Schools. 2014;45:89-91.

Leder SB, Suiter DM, and Warner HL: Advantages & Disadvantages of CSE Compared with Simultaneous FEES. ASHA Convention 2015

BE AN ADVOCATE!!!

- WE must demonstrate the necessity for the tools we want to make clinical decisions
- WE should be able to demonstrate why these tools are cost effective OR figure out a way to make them cost effective
- WE are the experts. WE can not expect other professionals (who may or may not be medical personal) to know why we need certain items
- Know where to find your answers. ASHA, SIG13, Dysphagia Research Society, Journals, Blogs, and experts in the field.
- The answers and guidance are out there.

Conundrum

- If a CSE is the only “diagnostic” method available, the clinician is in a state of unfortunate misfortune
- Our field does not have an evidence-based answer for those SLPs in this situation
- Advocate for instrumentation: FEES & VFSS
- I recognize this is a difficult clinical issue BUT
- We cannot fabricate evidence where there is none



Ramsey DJC, Smithard DG, and Kalra L. Early Assessments of Dysphagia and Aspiration Risk in Acute Stroke Patients. *Stroke*. 2003; 34: 1252-1257