

Entering Medical Speech-Language Pathology:

What the Novice Clinician Needs to Know

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Disclosures

- Financial: Employed by Henry Ford Health System as a Speech-Language Pathology Fellow
- Nonfinancial: N/A



Learning Objectives

1. Participants will learn basic medical etiologies, procedures, and terminology frequently required for chart reviews and basic practices in acute care.
2. Participants will utilize outside available resources (i.e. online trainings and modules) to further their education.
3. Participants will learn how to apply for a medical speech-language pathology fellowship program or acute care position, including the process of seeking such programs and preparing for interviews.



Why the gap?

1. Training in graduate school
 - Programs in MI don't offer medical specialities or tracks
 - Standard dysphagia or neuroanatomy courses
 - Tuition costs of out-of-state/private universities
 - Trach/vent, pediatric feeding/swallowing, HNC
 - Limited clinical opportunities



Why the gap?

2. Training after graduate school
 - Positions in IPR/SNF more abundant for new grads
 - Experience requirements
 - Limited specialized fellowship programs
 - Regional
 - Competitive



Speech Pathology in Acute Care



Caseload

Intensive Care Units - Medical, Neuro, Cardio/Cardiothoracic, Surgical

General Practice Units - Neuro stepdown, Internal Medicine, Infectious Disease, Telemetry, Oncology, Pulmonology, Surgical, Surgical Specialty

Etiologies: brain mass, stroke, encephalopathy, sepsis, liver failure, cardiorespiratory failure, lung transplant, cervical spine fusions



Caseload

- Clinical swallowing evaluation (CSE)
- Speech/ language evaluation
- Videofluoroscopic Swallowing Evaluation (VFSS)
- Fiberoptic Endoscopic Evaluation of Swallowing (FEES)
- Passy-Muir Speaking Valve evaluation (PMV)
- Dysphagia therapy*



Typical Day

- 1) Order triaging
- 2) Caseload and chart reviews
- 3) Direct patient care
 - a) CSE - prioritized based on NPO and possible need for VFSS scheduling
 - b) VFSS - GI Radiology schedules
 - c) ?FEES, ?PMV
- 4) Documentation, communication throughout



Chart Reviews

- Key things to look for:
 - Order type*
 - Diet orders/NPO
 - Date of admission
 - General history
 - Previously seen by SLP?
 - Imaging
 - CXR, CT Head, MRI Brain
 - Oxygen Requirements
 - HFNC, BIPAP/CPAP
 - Mentation



Case Example 1 (Neuro)

- 59 y/o female
- Progressive R SNHL, vertigo and falls
- MRI: R cerebellopontine angle (CPA) mass concerning for vestibular schwannoma
- EVD, SOC resection, CN VII palsy
- ETT: total 2 days
- CXR: clear
- CTH: evolving post-op changes, including hypoattenuation of the pons
- NGT



Case Example 2 (PMV)

- 34 y/o male
- PMH: ETOH abuse, prior IVDU, chronic hep C
- Hospital course: sepsis, renal failure, encephalopathy, infectious tracheobronchitis
- ETT: 17 days
- Trach: Shiley #6 FEN cuffed
- Oxygen: 10 L/min trach shield, 40% FiO2
- CXR: clear
- PEG



Case Example 3 (GPU)

- 75 y/o female
- PMH: spinal surgery, sacral pressure ulcer, ?NPH, chronic foley
- AMS 2 mo, acute decline, tachycardic, tachypneic, sepsis + UTI
- CXR: clear
- CTH: prominence of lateral and third ventricles
- Lethargic
- Mechanical soft diet + TL



Clinical Swallowing Evaluations

- 1) Speak with RN/care partner for patient's functional status
- 2) Alertness and orientation
 - a) Informally assessing communication/language & speech/voice
- 3) Oral mechanism examination
- 4) Bolus trials
 - a) Medical appropriateness & clinical presentation
- 5) Update RN, team
 - a) Diet orders? Further testing?



VFSS

- SLP + GI Radiologist + Rad techs + RN
- GI Radiology suite
- *Procedures may vary based on hospital policy*
 1. Transfer pt into fluoroscopy chair
 2. Check frame positioning
 3. Provide bolus trials
 4. Compensatory strategies if needed
 5. Consider AP view - *nectar thick liquid*
 6. Review exam with Radiologist



VFSS



FEES

1. Evaluate each nare, consider open path/inferior turbinate
2. Evaluate anatomy, secretions
3. Provide boluses
 - a. Oral containment
 - b. Penetration/aspiration
 - c. Residue
4. Compensatory strategies possible



Passy-Muir Speaking Valves

- Case History:
 - Type/size of trach
 - Cuff deflation
 - Oxygen delivery via trach shield
 - Contraindications
- Evaluation:
 - Trach care, tracheal suctioning
 - Digital occlusion
 - PMV placement
 - Education



Speech-language Evaluations

- Intended for functional communication
- Differential diagnosis of aphasia and motor speech disorders
- Consist of informal tasks: yes/no, repetition, naming, speech sample, commands
- WAB-Bedside or MOCA
- Standardized assessments for evaluations prior to intraoperative language mapping
 - BDAE, CLQT



What I wish I knew...

1. Common medical etiologies and procedures
 - Neuro: ACA/MCA/PCA - anatomy, MER - thrombectomy, SOC - craniotomy, LP, angiogram, EVD, ICH, SDH
 - GI: SBO, ileus, GIB, EGD, esophagram, hemoptysis, esophagectomy, TE fistula, CP bar, GERD
 - Cardiac/Pulmonary: CHF, CAD, NICM, AAA, SOB, PTX, NSTEMI, PEA arrest, PE, ECMO, fibrosis, angina
 - ENT: DLB, RLN, XRT, LPR, epistaxis, CIS, PNI, anatomy
 - Other: s/p, OSH, LDA, TPN, POD, ETT



What I wish I knew...

2. Respiratory devices and oxygen delivery
 - i. Nasal cannula, Salter, HFNC
 - ii. Venti-mask, non-rebreather
 - iii. CPAP/BIPAP
 - iv. Endotracheal tube, ventilators



What I wish I knew...

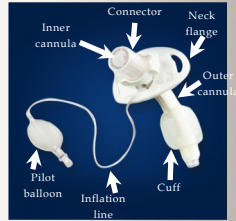
3. Tracheostomies

I. Types and features

- Inner, outer cannulas
- Cuffed, cuffless
- Fenestrated
- Color meanings

II. Sizing

- Most common = 8 or 6
- Pediatric = ≤ 4



<https://www.vitalitymedical.com/pdf/shiley-quick-ref-guide.pdf>



What I wish I knew...

3. Tracheostomies

III. Trach care




What I wish I knew...

3. Tracheostomies

IV. Suctioning



Recommended Resources



MBSImP

- <https://www.northernspeech.com/mbsimp/>
- Standardized protocol to score 17 components of swallowing on VFSS
- Oral = 6, pharyngeal = 10, esophageal = 1
- \$600, 2.1 ASHA CEUs
- Reduced costs for graduate students, email mbsimp@northernspeech.com, group rates
- Powerpoint available for facility funding



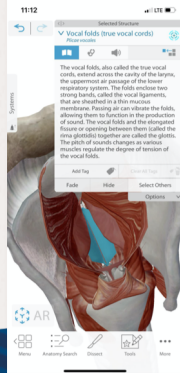
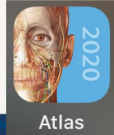
Passy-Muir Modules

- <https://www.passy-muir.com/education>
- Clinicians > Free courses > scroll down
- Aerodigestive and Respiratory Changes Post Tracheostomy: A Comprehensive Review
- Tracheostomy: Procedures, Timing, and Tubes
- Ventilator Basics for the Non-Respiratory Therapists
- Application of Passy Muir Swallowing and Speaking Valves
- Swallow Function: Passy Muir Valve Use for Evaluation and Rehabilitation



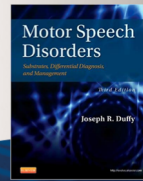
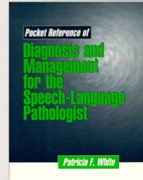
Human Anatomy Atlas 2020

- <https://www.visiblebody.com/anatomy-and-physiology-apps/human-anatomy-atlas>
- App, \$24.99
- Region and system views, including:
 - Pharynx and larynx, expression and mastication, laryngeal muscles



Literature

- Pocket Reference of Diagnosis and Management for the Speech-Language Pathologist
 - Patricia F. White
- Motor Speech Disorders: Substrates, Differential Diagnosis, and Management
 - Joseph R. Duffy




Literature

- Coyle, J. L. (2014). Dysphagia following prolonged endotracheal intubation: Is there a rule of thumb? *Perspectives on Swallowing and Swallowing Disorders (Dysphagia)*, 23(2), 80-86.
- Langmore, S. E., Terpenning, M. S., Schork, A., Chen, Y., Murray, J. T., Lopatin, D., & Loesche, W. J. (1998). Predictors of aspiration pneumonia: How important is dysphagia? *Dysphagia*, 13(2), 69-81.
- Langmore, S. E. (2017). History of fiberoptic endoscopic evaluation of swallowing for evaluation and management of pharyngeal dysphagia: Changes over the years. *Dysphagia*, 32(1), 27-38.
- Pearson Jr., W. G., Griffith, J. V., & Ennish, A. M. (2019). Functional anatomy underlying pharyngeal swallowing mechanics and swallowing performance goals. *Perspectives on Swallowing and Swallowing Disorders (Dysphagia)*, 4(4), 1-8.




Application for Fellowships and Transition into Acute Care




1. Planning

- Shadowing/observation
- Attend conferences/seminars re: acute care topics or in-person CEUs
- Completion of certifications (i.e. MBSImP, BLS)
- Consider geographic location
 - Large acute-care hospitals typically urban
- Consider current financial, career, and personal positions
- Not an overnight process



2. Search

- Google search for fellowships
 - Johns Hopkins, Henry Ford, Cleveland Clinic
 - Voice, HNC
- Direct websites for health systems
- Indeed, Glassdoor
 - Consider PRN, look at requirements in listing
- Word of mouth, social media



3. Application

- Resume - 1 page
 - Internships/positions: hospital, SNF, IPR, inpatient/outpatient, homecare, TBI/cog
 - Research, presentations
- Cover letter
 - Brief: previous experiences
 - Focus on: goals, specifics of facility, skills that match values
- Letters of reference
 - Individuals who can attest to *clinical skills*



4. Interview

- Standard topics:
 - Interest in field
 - Challenging patient/professional experience
 - Career goals
- Knowledge & skills:
 - Differential diagnosis - aphasia, MSDs
 - Cranial nerves, anatomy - OME
 - PMV procedures/contraindications
- Tailor responses to position population if able
- If unsure, state how you would receive training



Review

1. Speech Pathology in Acute Care
2. Recommended Resources
3. Application for Fellowships and Transition into Acute Care



Questions?

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