

Fall Voice Conference – October 12-14, 2017



The Vanderbilt Bill Wilkerson Center is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech-language pathology and audiology. **See course information for number of ASHA CEUs, instructional level and content area.** ASHA CE Provider approval does not imply endorsement of course content, specific products or clinical procedures.

This course is offered for up to 2.0 ASHA CEU's (intermediate level; professional area).

LEARNING OBJECTIVES - MAIN CONFERENCE:

- Describe clinical features of Muscle Tension Dysphagia
- Identify a framework for diagnosis for Muscle Tension Dysphagia
- Describe effective treatment techniques for Muscle Tension Dysphagia
- Describe potential benefits of robotic assistance in microlaryngeal phonosurgery.
- Describe limitations of currently available robotic systems.
- List one potential of a novel robotic 'steady-hand' platform in improving precision of microlaryngeal phonosurgery.
- Describe the effect of radiation therapy on laryngeal tissues
- Describe the intervention approaches applied in Vocal hygiene and Vocal Function Exercises
- Describe the multi-dimensional effects of radiation therapy on voice quality
- List the patient safety issues during office based KTP laser procedures
- Describe the SMH Safety Protocol development and application.
- List the sociodemographic factors associated with the likelihood that an individual over age 65 will report or seek treatment for voice problems.
- Explain why only a small minority of adults over 65 with voice problems will be evaluated by an otolaryngologist or a speech-language pathologist.
- Explain why serial intralesional steroid injections likely prolong the interval between surgical airway procedures in patients with subglottic and proximal tracheal stenosis
- Describe the association between idiopathic vocal fold paralysis and upper respiratory infections
- List alternate proposed etiologies of idiopathic vocal fold paralysis
- Describe how to use Thyroarytenoid myoneurectomy to treat Adductor spasmodic dysphonia.
- Describe the advantages and disadvantages of an alternative medication regimen for empiric LPR treatment
- Describe how medication compliance and erroneous LPR diagnoses issues lead to the high cost of treating LPR.
- Describe the economic impact and potential cost savings that up front reflux and motility testing offer.
- Describe the typical aerodynamic findings seen in patients with Adductor Spasmodic Dysphonia
- Describe how typical aerodynamic findings seen in patients with Adductor Spasmodic Dysphonia are affected by botox injection
- Describe the potential of a silk-based injectable filler as a biocompatible treatment for vocal fold medialization
- Describe emerging technology in vocal fold filler field and list the engineering criteria critical for the design of improved injectable formulations.
- Describe how rabies virus is used as a tool for tracing neuroanatomical pathways in monkeys
- Discuss the potential for multiple cortical areas to contribute to vocal motor control
- Describe the utility of high-speed videoendoscopy in detailing vocal fold scar.
- Describe precise vibratory changes in the scarred vocal fold and the non-scar vocal fold following surgical treatment.
- Describe the perceptual changes of vocal quality following surgical intervention of vocal fold scar, and it's

relation to changes in vocal fold vibration.

- Define presbylaryngis and pathologic presbyphonia and distinguish between them.
- Describe physical exam findings consistent with presbylaryngis
- Describe acoustic features of pathologic presbyphonia
- List common ways that phonation threshold pressure is used in clinic and research
- Describe the potential changes in PTP due to repetition and learning
- Describe how these data provide evidence that vocal tasks may follow traditional motor learning principles
- List vocal responses to psychological stress
- Differentiate between fear and psychological stress
- Describe the value of cortisol sampling in voice
- Describe the implications for HPV vaccine in patients with RRP.
- List factors guiding the decision to undergo HPV vaccination.
- Describe the effects of improved glottic closure on dyspnea.
- Describe the signs and symptoms of glottic insufficiency.
- List the pros and cons of both lipoinjection and medialization laryngoplasty for treatment of glottic insufficiency
- List risk factors for phonotraumatic injury in fitness instructors
- List phonotraumatic injuries common in fitness instructors
- Describe treatment outcomes of fitness instructors treated for phonotraumatic injury
- Describe factors that increase the risk of vocal injury in various types of professional performers
- List common types of vocal injuries seen in professional performers
- List indirect and direct treatment goals for certain types of professional performers
- Describe gaps in the current literature regarding voice therapy discharge
- List factors SLPs find most important to discharging a patient from voice therapy
- List factors patients find most important to being discharged from voice therapy
- Describe the objective of the s/z ratio
- Describe the rationale behind using the s/z/ z/a coupling in assessment of voice
- Describe the application of desensitization therapy to symptoms of laryngeal hypersensitivity.
- Describe the nature of Laryngeal Adductor Responses.
- Describe the potential benefits of cryotherapy in the treatment of glottic carcinoma
- Describe and compare the improvement in dysphagia outcomes among patients treated with an endoscopic versus open transcervical approach to Zenker's Diverticulum
- Describe how to use the STROBE statement (Strengthening the Reporting of Observational studies in Epidemiology) to evaluate the quality of reported studies
- Describe the approximate location of two regions of diaphragm representation in macaque primary motor cortex
- Describe how respiratory-phonatory coordination might be facilitated at a neuroanatomical level
- Identify several commercially available chromoendoscopy filters and characteristics of each.
- Describe laser safety precautions for the use of KTP laser
- Describe the challenges of adherence to vocal training programs
- Describe the benefits and limitations of mobile health technologies for vocal training
- Describe how the results from patient self-perception indices are useful predictors of speech therapy adherence.
- Describe how to use the results from self-perception indices as an educational tool to increase the patient's own awareness of voice disorders as a contributing factor to chronic cough.
- Describe appropriate treatment for MTDg patients.
- Describe why PPI therapy alone does not treat laryngeal muscle tension.
- Describe why dysphonia may be a concomitant symptom with MTDg however the recovery for both symptoms may not be simultaneous.
- List the various materials used for vocal fold tissue engineering
- Describe the biomimetic properties of the novel vocal fold scaffold
- Define stimulability and stimulability testing in the context of the voice evaluation.
- Describe the challenges and barriers to creating a standardized stimulability protocol and the limitations

in our field without one.

- Describe the use of stimulability as a predictor for appropriateness for voice therapy and positive voice therapy outcomes.
- Describe the natural history of type I posterior glottic stenosis.
- Compare in-office management of type I posterior glottic stenosis with management in the operating room.
- Describe the potential for persistent impairment of vocal fold motion after lysis of posterior glottic synechia.
- Define laryngeal hypersensitivity.
- Describe the current modes of treatment for laryngeal hypersensitivity and its symptoms.
- List and describe the disorders of the upper esophageal sphincter
- Discuss the clinical potential of high resolution manometry biofeedback for patients with disorders of upper esophageal sphincter
- Participants will be able to name the new breathing technique for treating exercise induced PVFM.
- Participants will be able to list the seven steps for teaching the Hybrid Breathing Technique to patients with exercise induced PVFM.
- Discuss the frequency of laryngeal tremor
- Discuss the perceptual analysis of laryngeal tremor
- The participant should understand how increased magnitude doses of phonation alter the vocal folds on the structural and molecular level.
- The participant should understand how these structural and molecular changes impact vocal fold vibratory function.
- Describe the role of osteophytes in dysphagia
- List comorbidities that may be contributing to dysphagia along with osteophytes
- Differentiate between MTD and SD through aerodynamic measures.
- Describe how aerodynamic measures can help differentiate between primary and secondary MTD
- Describe the neuropathic model for chronic cough and list commonly utilized medications.
- Describe the efficacy, dosing, side effects, and treatment course of patients using tramadol for chronic cough.
- Describe the safety profile of intramuscular steroid injection in the vocal fold;
- List the indications of intracordal steroid injection in vocal fold pathology;
- List the technical steps of office-based intracordal steroid injection.
- Describe the current standard of care for esophageal dilation in head and neck cancer (HNCA)
- Describe the safety and feasibility of in-office, topical anesthesia for esophageal dilation in HNCA patients
- Describe the new validated scale for Reinke's Edema
- Describe the clinical correlations of the Reinke's edema grading
- Explain the differences between an implicit-only and implicit-explicit approach to voice therapy
- Describe the impact of nocturnal laryngopharyngeal reflux disease on quality of life and speech
- Describe how anatomy and sleep-positioning impact the reflux of gastric contents during sleep
- Describe how sleep positioning devices can improve LPRD symptoms
- Describe the utility of PVHI and RSI in the pediatric population
- Explain the predictive power of PVHI and RSI for presence of physical findings on laryngoscopy
- Describe the role of cough suppression therapy within the otolaryngologist's treatment algorithm for recalcitrant chronic cough
- Describe the response to cough suppression therapy by asthmatics with chronic cough
- Develop a greater understanding of cough suppression therapy for patient counseling
- Describe the simple dysphagia score system for head and neck cancer patients generated from previously validated quality of life assessment tools.
- Describe the association of the dysphagia score and overall survival of head and neck cancer patients.
- Describe the strengths and weaknesses of the new dysphagia score system introduced in this study.
- Identify barriers that trans women have in obtaining voice training and voice modification surgery.
- Describe preferences for voice training among trans women.
- Describe the concept of a minimal clinically important difference in an outcome measure
- Describe the implication of determining an MCID for the VHI-10



SPEAKER DISCLOSURES

The following faculty has no relevant financial or non-financial relationships to disclose:

Katherine Adams Michelle Adessa Lee Akst Jennifer Anderson Vrushali Angadi Rony Aouad Catherine Balif Nicholas A. Barrone Ahmed Bayoumi Peter C. Belafsky Michael Benninger Yael Benssouden Monica Bergevin Caitlin Bertelsen Neel Bhatt Erin Blatti Rohan Bidaye Ryan Branski Joseph E. Brown Paul Bryson Robert Buckmire Linda Carroll Christina Cerkevich Rachel Coleman Amy Cooper Mark S. Courey Brianna Crawley James J. Daniero Christina Dastalfo-Hromack Salem Dehom Maria Dietrich Gregory Dion Laura Dominguez Emily Dressler Richard Dum Christine Estes Lisa Evangelista Michele Fava David Francis Scott L. Gabbard Thomas Gal Vahram Gamsarian C. Gaelyn Garrett Jackie Gartner-Schmidt JP Giliberto Jodie E.M. Giordano Elizabeth Guardiani Christopher P. Gulka	Jeffrey Harmon Leah Helou Amanda Hembree Howard Herman Anh Hoang Heather Hodges Bridget L. Hopewell Rebecca J. Howell Amanda Hu Eric Hunter Michael Johns Aaron Johnson Christopher Johnson Kristina Johnston Carrie Kalata Christina Kang William Karle Matthew Kaufman Sid Khosla Emily Kimball Jody Kreiman Priya Krishna Maggie A. Kuhn David Lott Joanna Lott Astha Malhotra Nicole Maronian Tory McKenna Jareen Meinzen-Derr Albert Merati Rickson C. Mesquita Claudio F. Milstein Maria P. Montero Matthew Mori Iman Mousselli Pamela Mudd Sean Mullen Brett Myers Kathleen Nagle Nogah Nativ-Zeltzer Emily Nauman Karla O'Dell J. Tod Olin Cristen Paige Debbie Phyland Patrik Pipkorn Maria Powell Elizabeth Ramsey	Derrick Randall Lindsay Reder Erin Roberts Esther Rong Ann Rooney Clifford Doug Roth Bernard Rousseau Benjamin Rubinstein Babak Sadoughi Lea Sayce Melissa Schopper Rupali Shah Hagit Shottel-Havakuk Valeria Silva Merea Blake Simpson John Sinacori Elizabeth Sjogren Anneilise Slattum Libby Smith Nancy Solomon Danielle Spagnuolo Brianna Spilsbury Peter L. Strick Lucian Sulica Melin Tan Cari Tellis Cedric Thiel Chandler Thompson William Tierney Andrew Tkaczuk Laura Toles Thomas Townes Lauren Tracy Joseph Valentino Katherine Verdolini Abbott Douglas von Allmen Caroline Vonck Hailun Wang Christopher Watts Peak Woo Jin Yang Arjun Yodh VyVy Young Sheng Zhou
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SPEAKER DISCLOSURES Con't

The following faculty have relevant financial relationships to disclose:

- Elizabeth Grillo has a financial relationship with the National Institute on Deafness and other Communication Disorders of the National Institutes of Health and receives grant funding as a principal investigator. Elizabeth also receives a royalty from Northern Speech Services and West Chester University.
- Jonathan Bock has a financial relationship with Diversatek and receives a consulting and teaching fee.
- Sarah Schneider has a financial relationship with MedBridge and receives a royalty.
- Greg Postma has a financial relationship with Medtronic and receives honoraria and a teaching/speaking fee.
- Katherine Verdolini Abbott has a financial relationship with the National Center for Voice and Speech; Plural Publishing, Inc.; Visions in Voice and receives a speaking and royalty fee.
- Nikki Johnston has a financial relationship with ATCC and ABM (for cell lines) and receives a royalty as the owner.
- Joseph Stemple has a financial relationship with Plural Publishing and receives a royalty.
- Thomas Murry has a financial relationship with Plural Publishing and receives a royalty.
- Marina Gilman has a financial relationship with Plural Publishing and receives a royalty.
- Jodie Giordano has a financial relationship with Sofregan Medical and receives a salary.
- Clark Rosen has a financial relationship with Merz NA, Inc. and receives a speaking and teaching fee.
- Milan Amin has a financial relationship with Merz NA, Inc. and receives a speaking and teaching fee.
- Amanda Gillespie is a Principal Investigator with the National Institutes of Health and receives grant funding.
- Ashli O'Rourke has a financial relationship with Medtronic and receives a teaching and consulting fee.
- Michael Pitman has a financial relationship with Cook Medical and receives a consulting fee.
- Thomas Carroll holds a financial relationship with Sofregan Medical, Inc. and Pentax Medical and receives a consulting fee.
- Paul Bryson has a financial relationship with Fortec Medical and receives a consulting fee and honoraria for teaching and speaking.
- Edie Hapner has a financial relationship with Medbridge and receives a royalty and speaking fee.
- Randall Paniello receives grant funding and has other financial relationships with Midwest Stone.

The following faculty have relevant non-financial relationships to disclose:

- Elizabeth Grillo has a non-financial relationship with VoiceEvalU8 smartphone and tablet application as the inventor.
- Nikki Johnston will be describing a drug development project for which she has prepared a draft composition of matter patent and intend to file late 2017. Disclosure of intellectual property and future potential royalties.
- Shirley Gherson has a non-financial relationship with the Journal of Voice and serves on the editorial board.
- Michael Pitman owns patents related to treatment of spasmodic dysphonia and therefore holds a non-financial relationship as the owner.
- Cari Tellis holds a non-financial relationship with Estill Voice Training as a master teacher and certified course instructor.
- Thomas Murry has a non-financial relationship with Plural Publishing and is a reviewer of financial statements.

Fall Voice Pre-Conference Learning Outcomes

Following this course, participants will be able to...

- Case History
 - List key questions to ask patients during a medical history to help form a differential diagnosis.
 - Describe how to develop a patient centered approach to interviewing the voice patient.
 - List indicators of quality of life impairment in the dysphonic patient.
- Perceptual analysis of voice
 - Describe the theoretical underpinnings of the most commonly-used approaches to measuring voice;
 - List one reason why voice research appears to have stalled in recent decades;
 - Describe how different conceptions of the nature of voice impact approaches to voice measurement.
- Pearls on laryngeal imaging
 - Describe how to perform rigid and flexible endoscopy
 - List one technique to enhance the quality of videostroboscopy images
- Acoustic analysis of voice
 - List one strength and one pitfall of acoustic analysis both in clinical and research settings.
 - Identify one new trend in quantitative voice techniques.
- Aerodynamic analysis
 - Define airflow, air pressure, laryngeal airway resistance, and phonation threshold pressure.
 - Describe the instrumentation needed to measure airflow and air pressure
 - Describe noninstrumental approaches to assessing aerodynamic aspects of phonation
 - List speech and nonspeech tasks that are useful for aerodynamic assessment of voice
 - Explain the relevance of aerodynamic measures for evaluating changes in phonation associated with surgical or behavioral interventions.
- Singing Voice Evaluation
 - Describe the unique factors and vocal needs of singers, compared to non-singing voice patients, that need to be considered in a voice evaluation
 - List approaches used in the evaluation of the singing voice
 - Describe how to develop patient-specific approaches to evaluating the singing voice.
- Hands-On Assessment
 - Describe the rationale for hands on evaluation for voice patients.
 - List evaluation techniques using hands on manual assessment
 - Describe 3 ways to manually assess respiration
 - Describe 3 ways to manually assess laryngeal structures
 - Describe 3 ways to manually assess muscles of mastication
 - Describe how to develop a treatment plan from evaluation findings
- Tele Voice Evaluation: What apps are available?
 - Describe smartphone and tablet apps available for perceptual, acoustic, and aerodynamic measures.

- List the pros and cons of each app.
- Describe how to use the apps in clinical practice.
- Transgender Voice Assessment
 - Identify at least five ways to prepare for working with clients who do not identify as cisgender
 - Describe the key elements of intake and assessment for clients pursuing congruence between their gender identity and communication behaviors
- Pediatric Voice Assessment
 - Identify the major physiologic and histologic differences between adults and different pediatric age groups that may impact results of a pediatric voice evaluation compared to the adult model.
 - Identify specific factors and considerations in each of the major developmental age groups to be considered to accomplish an age-appropriate pediatric voice evaluation.
 - Describe how to formulate an age-appropriate pediatric evaluation addressing specific age-appropriate needs and considerations.
 - Describe how to formulate age-appropriate therapy goals and expectations across various pediatric age-groups based on information obtained from an age-appropriate voice evaluation.

Fall Voice Pre-Conference Speaker Disclosures

FINANCIAL DISCLOSURES

Amanda Gillespie receives grant funding from NIH.

Marina Gilman receives royalties from Plural Publishing.

Elizabeth Grillo receives grant funding from NIDCD and royalties from Northern Speech Services and West Chester University.

Edie Hapner receives royalties and speaking fees from Medbridge.

Catherine Balif, Michele Fava, Jackie Gartner-Schmidt, Leah Helou, Eric Hunter, Michael Johns, Jody Krieman, Tory McKenna, Doug Roth, Blake Simpson, Nancy Solomon, Cari Tellis, and Chandler Thompson have no financial relationships to disclose.

NON-FINANCIAL DISCLOSURES

Catherine Balif, Michele Fava, Jackie Gartner-Schmidt, Amanda Gillespie, Marina Gilman, Elizabeth Grillo, Edie Hapner, Leah Helou, Eric Hunter, Michael Johns, Jody Krieman, Tory McKenna, Doug Roth, Blake Simpson, Nancy Solomon, Cari Tellis, and Chandler Thompson have no non-financial relationships to disclose.