NOTICE TO THE PROFESSIONS | *Certificate E: Flexible Endoscopic Evaluation of Voice and Swallowing (FEEVS) for Adults for RSLPS -- Transition Session for Certificate F Holders & Trainees*

VANCOUVER, BC: As part of our Certified Practice (CP) Program (formerly, "Advanced Certification"), we currently have two endoscopy-related certificates: Certificate E (Voice) and Certificate F (Swallowing). These certificates are being combined into one certificate -- **Certificate E:** ***Flexible Endoscopic Evaluation of Voice and Swallowing (FEEVS) for Adults***.

There are over 40 holders of Certificate F (Swallowing) who will be required to complete the aspects of voice that are required for the combined certificate. There is an assumption that the fundamental skills of voice are covered in a graduate degree program, and that Certificate F holders have all the essential procedural skills to conduct endoscopy. There is a need for additional education and verification of interpretation skills as they pertain to voice. This certificate does not cover other SLP practices, such as conducting voice therapy or interpreting laryngeal stroboscopic images. The change to the combined certificate will be required on or before **March 2020**.

The College of Speech and Hearing Health Professionals of British Columbia (CSHBC), in partnership with Speech & Hearing BC (SHBC), is offering a free, transition session for those SLPs requiring the voice objectives for the new, combined certificate on **Thursday, October 24, 2019, at the Delta Burnaby Hotel from 6:00 ~ 9:00 PM**. The live in-person session will be offered in conjunction with the SHBC Conference at the Delta Burnaby Hotel on the same day. The session will be video recorded for those registrants who are unable to attend the in-person session.

We have posted a pre-requisite resource list that participants will find beneficial according to individual needs before the session.

REGISTRANTS MUST REGISTER FOR THE SPEECH & HEARING BC CONFERENCE SESSION

Registration is now open and details on the session can be found at SHBC's Conference platform . You will find information on registration, SLP and AUD presenters, the session schedule, exhibitors & sponsors, special events, accommodation and more.

Expected pre-requisites and a resource list are attached for all participants for the voice endoscopy portion of the certificate.

For further information, please contact Mardi Lowe, Director, Quality Assurance & Professional Practice at Mardi.Lowe@cshbc.ca.

The College of Speech and Hearing Health Professionals of British Columbia is the licensing and regulatory body for all audiologists, hearing instrument practitioners, and speech-language pathologists in the province. The College's role is to protect the public by establishing, monitoring, and enforcing high standards of qualification and ethical practice across British Columbia.

July 5, 2019

NOTICE TO THE PROFESSIONS | *Certificate E: Flexible Endoscopic Evaluation of Voice and Swallowing (FEEVS) for Adults for RSLPS -- Appendix*

VANCOUVER, BC: The pre-requisite, essential components for the Certificate E: FEEV transition session, to be held at the **Delta Burnaby Hotel Thursday on October 24, 2019,** are listed below. This is followed by a resource list for registrants. There is an assumption that participants have the knowledge and skills level in voice equivalent to an SLP graduate program course(s) in vocal anatomy/physiology and clinical assessment and management.

1. ANATOMY & PHYSIOLOGY

Speech Breathing:

- Differences between speech breathing and vegetative breathing.
- Primary systems involved in speech breathing. Passive versus Active speech breathing mechanisms.
- Speech breathing measurement and evaluation: e.g. respiratory kinematics and dynamics.
- Anatomical factors in respiratory systems that influence sub-glottal pressures, phonation duration, phonatory dynamics (e.g. intensity, fundamental frequency).
- Use (e.g. Posture) factors that influence sub-glottal pressures, phonation duration, phonatory dynamics.
- Effects of development and aging on speech breathing anatomy and function.
- Gender-based differences in speech breathing anatomy and function.

Laryngeal & Paralaryngeal Anatomy:

- Laryngeal suspension system: role of extrinsic laryngeal suspension system during voice production.
- Primary cartilages of the larynx: functional significance for voice production and breathing of structure, shape and location.
- Intrinsic muscles of the larynx: primary roles of each for voice production, abduction, adduction, medial compression, registration, dynamics of intensity, fundamental frequency (f_0).
- Structures involved in vocal resonance.
- Vocal Registration mechanisms (e.g. Modal, Falsetto, Glottal Fry).
- Primary differences in laryngeal structure between infants, children and adults. Effects of development and aging on vocal structure and function.
- Primary gender-based differences in laryngeal structure and function.

Phonatory Physiology:

- Factors that determine sub-glottal pressures and resistance. Phonation threshold pressures.
- Vocal fold layer-structure of the vocal folds: influence of the layer-structure on vibratory patterns.
- Vibratory patterns: longitudinal phase difference; vertical phase difference; mucosal wave.
- Biomechanical-aerodynamic principle of phonation: flow-separation, etc. Primary asymmetrical force factors determining sustained self-oscillation of the vocal folds.
- Vocal Registration: Unique postural, vocal fold vibratory, biomechanical, aerodynamic, speech-breathing patterns for different vocal registers.
- Primary mechanisms responsible for pitch change in modal register, falsetto register.
- Secondary vocal tract adjustments in the vocal tract that may contribute to pitch changes.
- Mechanical, aerodynamic and acoustic correlates to intensity changes in modal register, falsetto register.
- Physiological factors contributing to variable vocal quality, e.g. Breathiness, pressed voice/glottal fry.
- Supra-glottal influences on vocal quality.
- Resonance mechanisms/factors in larynx and extra-laryngeal structures.
- Acoustic and aerodynamic principles of phonation, e.g. Source-Filter/Acoustic Theory

2. CAUSES & CLASSIFICATIONS

Anatomical Factors:

- Examples: tumours; infections; mucosal changes from use/misuse; laryngeal trauma (internal/external); contact ulcer and granuloma; cysts, sulci, and mucosal bridges; congenital and acquired webs; Cricoarytenoid Joint Problems; Neurological Factors: Motor Speech Disorders; occupational diseases; environmental toxins/sensitivities; irritable larynx/laryngeal breathing dysfunction (e.g. chronic cough, laryngospasm-PVFM, Globus).

Lifestyle Factors:

- Examples: Vocal dose; environmental; acoustic; ergonomic; occupational; habitual misuses.

Emotional & Psychological Factors:

- Examples; autonomic and voluntary nervous system responses to emotional stressors; levels of emotional awareness; attachment factors; Conflict Over Speaking Out (COSO); psychiatric disease.

Reflux:

- Lifestyle, anatomical factors contributing to LPR; responses of laryngeal valve; chronic laryngeal irritability

Technique:

- Examples; alignment/posture; specific regional muscle misuses, e.g. jaw clenching; laryngeal misuses, e.g. valving; inappropriate speech breathing; misuses related to register/pitch use, intensity use.

3. ASSESSMENT OF VOICE DISORDERS

- Speech-breathing measures (e.g. kinematics; dynamics; vital capacity; phonatory flow volumes).
- Multi-factorial, client-centred history taking for voice/laryngeal dysfunction including standardized self-report protocols.

Perceptual Evaluations:

- Auditory perceptual protocols. (E.g. CAPE-V; Vocal Profile Analysis; GRBAS.
- Other perceptual protocols. (E.g. manual evaluation; visual analysis of posture)

Instrumental Evaluations:

- Acoustic measures: for intensity; rate; duration measures of typical values and ranges.
- Spectral-acoustic measures of vocal perturbations, Cepstral measures.
- Aerodynamic measures of voice production: phonatory flow rates, volumes; estimated sub-glottal pressure and glottal/laryngeal airway resistance measures; phonation threshold pressures.
- Laryngeal endoscopy: intra-oral; trans-nasal rationale, protocols including stroboscopic assessment of vocal fold vibratory movements.
- Other instrumental measures: E.g. electro-glottography; slow-motion photography-kymography; laryngeal electromyography

Diagnostic Voice Therapy:

- Selection process for therapy probes: How do we choose diagnostic therapy approaches based on information obtained from knowledge of normal and abnormal anatomy/physiology, client history and assessment results?

4. VOICE THERAPY APPROACHES

- Focused/symptomatic therapy approaches and applications.
- Comprehensive therapy approaches and applications.
- Augmentative/holistic therapy approaches and applications.

PREREQUISITE RESOURCE EXAMPLES FOR VOICE ENDOSCOPY EDUCATION

American Speech-Language-Hearing Association (ASHA)

Speech-Language & Audiology Canada (SAC)

SpeechPathology.com

Carolina Speech Pathology

Aronson, A.E. and Bless, D.M. (2009) *Clinical voice disorders 4th Edition*, New York: Thieme.

Baker J and Lane RD (2009) Emotion Processing Deficits in Functional Voice Disorders. Chapter 7 in

Emotions in the Human Voice, Vol III, K. Izdebski (Ed). San Diego: Plural Publishing: 105-135.

Ferrand, CT (2012) *Voice Disorders: Scope of Theory and Practice,* Allyn & Bacon

Harris, T. (1998). *Laryngeal mechanisms in normal function ad dysfunction*. In T. Harris, S. Harris, J. S.

Rubin & D. M. Howard (Eds.), *The Voice Clinic Handbook*, 64-90. London: Whurr Publishers Ltd.

Hixon, T and Hoit, J. (2005) *Evaluation and Management of Speech Breathing Disorders,* Reddington Brown LLC

LeBorgne, W (2018) *Rating Laryngeal Videostroboscopy and Acoustic Recordings*. Plural Publishing.

Morrison, M. D., & Rammage, L. A. (1993). Muscle misuse voice disorders: description and classification. *Acta Otolaryngologica,* 113, 428-434.

Morrison, M. D., Rammage, L. A. & Emami, A. J. (1999). The irritable larynx syndrome. *Journal of Voice,* 13(3), 447-455

Morrison M, Rammage L. (2010) The irritable larynx syndrome as a Central Sensitivity Syndrome. *Canadian Journal of Speech-Language Pathology and Audiology* 2010;4(4):282-289.

Rammage L., Shoja S. and Morrison M. (in press) Muscle Misuse Disorders of the Larynx. Chapter 93: *Ballenger`s Otorhinolaryngology, Head and Neck Surgery, 18th Edition.* J.B Snow and P.A. Wackym, (eds.) BC Decker.

Sapienza C, Hoffman Ruddy, B (2018) *Voice Disorders.* Plural Publishing.

Sapienza C, Hoffman Ruddy, B Visual Examination of Voice Disorders- DVD Plural Publishing

Titze, IR. *Principles of Voice Production*

Van den Berg (1960) *The Vibrating Larynx*.

For further information, please contact Mardi Lowe, Director, Quality Assurance & Professional Practice at Mardi.Lowe@cshbc.ca.

The College of Speech and Hearing Health Professionals of British Columbia is the licensing and regulatory body for all audiologists, hearing instrument practitioners, and speech-language pathologists in the province. The College's role is to protect the public by establishing, monitoring, and enforcing high standards of qualification and ethical practice across British Columbia.

July 5, 2019