CSHA Fall 2021 Virtual Conference: Medical Track

Date: Thursday October 28\textsuperscript{th} 2021  
Time: 6:15-8:15 PM EST  
Live Zoom Webinar  
Professional Cost: One track $40 / Both tracks (all courses) $75  
Student Cost: One track $15 / Both tracks (all courses) $25

Registration Link:  
A link to join a Zoom meeting will be sent to all registered participants two days prior to the course.

Title of Presentation:  
Taking dysphagia exercise beyond the pen and paper: How are sEMG, biofeedback, and adherence related?

Description of Presentation:  
This presentation will focus on using surface electromyography (sEMG) biofeedback as an adjuvant to swallowing rehabilitation. The talk will begin with an introduction to sEMG and an overview of how sEMG differs from other forms of biofeedback and dysphagia adjuvant technologies. This talk will help clinicians feel confident in understanding what the sEMG signal is telling them and their patients, what sEMG signal can and cannot be used for, recent research, and pragmatic advice around day-to-day use and troubleshooting the technology. The talk also will focus on the importance of adherence to home based exercise, the ways in which adherence has been defined and studied in our field, and again, practical ways to capture and leverage adherence to assist our patients.

Speaker biography:  
Dr. Gabriela (Gabi) Constantinescu is an Adjunct Assistant Professor in the Communication Sciences and Disorders Department at the University of Alberta and CPO for True Angle. She is also an Affiliate of the Institute for Reconstructive Sciences in Medicine (iRSM). After obtaining her MSc-SLP from the University of Alberta, Gabi started her career as an SLP at the iRSM, where she amassed over a decade of experience assessing and treating swallowing difficulties in patients following treatment for head and neck cancer. Gabi then went on to obtain her PhD, where her research directly influenced the design and development of a mobile system for swallowing exercise called the Mobili-T (now a product of True Angle). During her PhD, Gabi received several personal awards and honors, including the Alberta Innovates: Health Solutions
Clinician Fellowship. After obtaining a Postdoctoral Fellowship in the School of Public Health at the University of Alberta, Gabi became a co-founder and CPO for True Angle. Her research brought her the 2020 Michael Donovan NFOSD Innovation Award at the Dysphagia Research Society conference and the 2020 ACSLPA Honor of the College award. One of Gabi’s favorite academic activities is knowledge translation, from publications to presentations such as this one, to blogs and educational videos.

Disclosures: Guidelines exist whereby all speakers must disclose any relevant relationships. 
Non-Financial:
Dr. Gabi Constantinescu is an inventor listed on a patent for the mobile swallowing therapy device, Mobili-T. She is the Chief Product Officer (CPO) of start-up True Angle Medical Technologies Inc.

Dr. Gabi Constantinescu is an Adjunct Assistant Professor in the Communication Sciences and Disorders Department at the University of Alberta and mentors students in their research studies. Lastly, Dr. Gabi Constantinescu is an Affiliate of the Institute for Reconstructive Sciences in Medicine (iRSM). She is a member of the DRS and an ASHA International Affiliate, Special Interest Group 13.

Financial disclosure:
Dr. Gabi Constantinescu received an honorarium, one month advertisement on the CSHA site, for providing this course. She does not receive remuneration from True Angle but is a shareholder in the company. Her salary is currently funded by an Alberta Cancer Foundation grant.

Learner Outcomes:
After attending this presentation, learner will be able to:
1) Explain how muscle contractions relate to the sEMG biofeedback signal
2) Summarize current research in dysphagia management with sEMG biofeedback
3) Understand if and how sEMG biofeedback may relate to their current practice &/or research
4) Summarize current research in adherence to dysphagia recommendations and the importance of adherence
Time-ordered Agenda:
0-5  Introduction
5-20  sEMG as an adjuvant to dysphagia rehabilitation
20-40  Interpreting and using sEMG signal
40-60  Adherence to dysphagia recommendations and exercise
60-90  How sEMG signal can be used to capture adherence and performance
90-105  Clinical scenario
105-120  Questions

Statement of Learning: The above course will be provided on-line, live by accessing a Zoom meeting link. The course may be recorded for future use. The course content will include lecture, video(s), case study review, group discussion and question and answer session.

Attendees microphones will be muted during the lecture. Questions may be posed by listeners by “raising their hand” (live) or using the “chat” feature on Zoom. Question posed using the “chat” feature will be shared by the moderator with the presenter and addressed in the final 10 minutes of the presentation.

CEU statement: This program is offered for a maximum of 0.2 SHA CEUs (Intermediate level; Professional area). No partial credit will be provided.