ESSD Videofluoroscopic Swallowing Study (VFSS)

Faculty:

Stefanie Duchac
Andrea Hofmayer
Loukas Dagdilelis
Virginie Woisard

Who is the course suitable for?

Health care professionals from the multi-disciplinary team of dysphagia management with interest in the execution, interpretation and reporting of videofluoroscopic swallowing studies.
Format: Lectures, workshop, case presentations

Learning Outcomes

At the end of this course, participants will be able to

- Identify the anatomical structures and the signs and symptoms of dysphagia using VFSS in the adult population
- Recognize and understand the roles of MDT professionals in the conduct and analysis of VFSS
- Be aware of the technical basics, safety procedures and the requirements for performing VFSS in the adult population
- Interpret the normal and abnormal swallow response in VFSS and plan management accordingly
- Utilize VFSS assessment findings to inform clinical decision making.

The course is not intended to authorize participants to perform VFSS independently.

Program:

TUESDAY 07.10.2025			
TIME	**CONTENT**	**CONTENT DETAILS**	**WHO?**
09.00-09.30	Welcome & Introduction	Introduction of participants	Stefanie Duchac Andrea Hofmayer
09.30-10.15	General basics	Scope of VFSS; Indications + contraindications for VFSS, history taking in the MDT	Andrea Hofmayer
10.15-10.45	Technical basics	Radiation safety, protection	Loukas Dagdilelis
10.45-11.00	COFFEE		
11.00-12.30	Normal I	Oral, pharyngeal, oesophageal (including ageing)	Loukas Dagdilelis, Stefanie Duchac, Virginie Woisard
12.30-13.30	LUNCH		
13:30 14.15	Tailored examination	Using protocols: pros and cons	Andrea Hofmayer
14.15-15.15	How I do it	How to do the investigation: the VFSS environment (Volumes, number of trials, consistencies, position of patient, measures)	Stefanie Duchac
15:15-15.30	COFFEE		
15.30-16.00	Normal II	Normal variants (morphology)	Loukas Dagdilelis, Virginie Woisard
16.00-16.45	HANDS-ON I	Normal VFSS – three cases	Faculty
16.45-1700	End of Day	Discussion, concluding remarks	Stefanie Duchac Andrea Hofmayer

WEDNESDAY 08.10.2025			
TIME	**CONTENT**	**CONTENT DETAILS**	**WHO?**
09.00-10.15	VFSS Online	Pathology I: Oral, pharyngeal and oesophageal phase - Symptoms	Loukas Dagdilelis, Andrea Hofmayer, Virginie Woisard
10.15-10.45	Therapeutic strategies	Compensatory therapeutic strategies during VFSS	Andrea Hofmayer
10.45-11.00	COFFEE		
11.00-11.30	VFSS Offline I	Pathology II: from symptom to biomechanics	Andrea Hofmayer
11.30-12.00	VFSS Offline II	Qualitative vs quantitative analysis pros and cons	Loukas Dagdilelis Stefanie Duchac
12.00-12.45	VFSS report	How to build a patient report based on VFSS (SLP & other health professionals) – MDT	Loukas Dagdilelis, Andrea Hofmayer
12.45-13.45	LUNCH		
13.45-15.30	HANDS-ON II	Analysis of VFSS videos and therapeutic recommendations in small groups	Faculty
15:30-15.45	COFFEE		
15.45-16.15	Clinical case	One clinical case as appetizer for the real world	Andrea Hofmayer
16.15-16.45	Conclusion	How to implement or improve VFSS in your department	Stefanie Duchac
16.45-17:00	End of Day	Feedback	Stefanie Duchac Andrea Hofmayer

Suggested literature

This list includes backup reading material references and links for open and non-open access papers.

Recommended books

- Videofluoroscopy: a multidisciplinary team approach. Plural Publishing. San Diego. Newman, R & Nightingale J.
- Dysphagia: diagnosis and treatment, 2nd edition. Springer. Ekberg O
- Evaluation and treatment of swallowing disorders. 2nd Edition. Austin, TX: Pro-Ed Inc; 1997. Logemann JA

Additional books for introduction into the topic:

- Dysphagia Assessment and Treatment Planning: a Team Approach, 4th edition Plural Publishing. Rebecca Leonard, Katharine Kendall.
- Dysphagia. Clinical management in adults and children, 3rd edition. Elsevier. Michael E. Groher and Michael M. Crary
- Daniels, S. K., Huckabee, M. L. & Gozdzikowska, K. (2019). Dysphagia Following Stroke (3. Auflage). San Diego: Plural Publishing

General VFSS literatur

- Scharitzer, M., Schima, W., Walshe, M. et al. ESSD–ESGAR best practice position statements on the technical performance of videofluoroscopic swallowing studies in adult patients with swallowing disorders. Eur Radiol 35, 3169–3180 (2025). https://doi.org/10.1007/s00330-024-11241-1
- American Speech-Language-Hearing Association (1992), Instrumental Diagnostic Procedures for Swallowing. Asha, 34 (March, Suppl.7). 25-33
- American Speech-Language-Hearing Association. (2004). Knowledge and skills needed by speech-language pathologists performing videofluoroscopic swallowing studies [Knowledge and Skills] www.asha.org/policy.
- Daniels SK & Easterling CS (2017). Continued Relevance of Videofluoroscopy in the Evaluation of Oropharyngeal Dysphagia. Curr Radiol Rep 5:6 DOI 10.1007/s40134-017-0201-4
- Daniels, S. K., Schroeder, M. F., DeGeorge, P. C., Corey, D. M., & Rosenbek, J. C. (2007). Effects of verbal cue on bolus flow during swallowing. Am J Speech Lang Pathol 16(2): 140-147. doi:10.1044/1058-0360(2007/018)
- Martin-Harris B., Canon, L. C., Bonilha, H. S., Murray, J., Davidson, K., Lefton-greif, A. (2020). Best Practices in Modified Barium Swallow Studies. American Journal of Speech-Language Pathology. 29, 1078–1093

1) Basics - Oropharyngeal dysphagia. Theoretical background.

- Speyer R, Cordier R, Farneti D et al. White Paper by the European Society for Swallowing Disorders: Screening and Non-instrumental Assessment for Dysphagia in Adults. Dysphagia (2022) 333-349
- Matsuo K, Palmer JB. Anatomy and physiology of feeding and swallowing: normal and abnormal. Phys Med Rehabil Clin N Am. 2008 Nov;19(4):691-707
- Souza LR, Oliveira MVM, Basile JR, et al. Anatomical and Physiopathological Aspects of Oral Cavity and Oropharynx Components Related to Oropharyngeal Dysphagia. https://www.intechopen.com/books/4545
- Costa MMB. Neural control of swallowing. Arq Gastroenterol. 2018 Nov;55Suppl 1(Suppl 1):61-75.
- Baijens et al, 2016. European Society for Swallowing Disorders – European Union Geriatric Medicine Society white paper: oropharyngeal dysphagia as a geriatric syndrome. Baijens LW, Clavé P, Cras P, et al. Clin Interv Aging. 2016; 11: 1403–1428.
- Newman et al, 2016. Effect of Bolus Viscosity on the Safety and Efficacy of Swallowing and the Kinematics of the Swallow Response in Patients with Oropharyngeal Dysphagia: White Paper by the European Society for Swallowing Disorders (ESSD). R. Newman, N. Vilardell, P. Clavé, and R. Speyer Dysphagia. 2016; 31: 232–249.
- Dua, K. S., Ren, J., Bardan, E., Xie, P. & Shaker, R. (1997). Coordination of deglutitive glottal function and pharyngeal bolus transit during normal eating. Gastroenterology 112(1): 73–83
- Robbins, J., Butler, S. G., Daniels, S. K., Gross, R. D., Langmore, S., Lazarus, C. L., Martin-Harris, B., McCabe, D., Musson, N., Rosenbek, J. C. (2008). Swallowing and Dysphagia Rehabilitation: Translating Principles of Neural Plasticity Into Clinically Oriented Evidence. Journal of Speech, Language, and Hearing Research 51, 276-300

2) VFSS – Background, complementary instrumental assessment

- Jones J. Collaboration Comes Standard. ACR Imaging 3. https://www.acr.org/-/media/ACR/Files/Case-Studies/Quality-and-Safety/CollaborationComesStandard/Imaging3_CollaborationComesStandard_March2018-(1).pdf

3) Procedure of VFSS

A. Equipment, technical requirements and radiation aspects

- Peladeau-Pigeon M, Steele CM. Technical Aspects of a Videofluoroscopic Swallowing Study. Canadian Journal of Speech-Language Pathology and Audiology. 37: 216-226
- Earl VJ, Badawy MK. Radiation Exposure to Staff and Patient During Videofluoroscopic Swallowing Studies and Recommended Protection Strategies:290-297
- Bonilha HS, Humphries K, Blair J, et al. Radiation exposure time during MBSS: influence of swallowing impairment severity, medical diagnosis, clinician experience and standardized protocol use. Dysphagia 2013; 28:77-85
- ALARA principle: further information on link www.eu-alara.net

B. Specific published VFSS protocols for conducting and interpretation of the examination.

- Martin-Harris B, Brodsky MB, Michel Y, et al. MBS measurement tool for swallow-impairment—MBSImp: establishing a standard
- Hutcheson KA, Barrow MP, Barringer DA, et al. Dynamic Imaging Grade of Swallowing Toxicity (DIGEST): Scale development and validation. Cancer 2017. 123:62-70
- Huckabee ML. New Zealand Index for Multidisciplinary Evaluation of swallowing. http://fliphtml5.com/nfqi/zyar
- Steele CM, Peladeau-Pigeon M, Barbon CAE, et al. Reference Values for Healthy Swallowing Across the Range from Thin to Extremely Thick Liquids. J Speech Lang Hear Res 2019. 21:1338-1363
- Benfield JK, Michou E, Everton LF, et al. The Landscape of Videofluoroscopy in the UK: A Web-based Survey. Dysphagia 2021. 36:250-258

C. Compensatory strategies

- Nagy A, Peladeau-Pigeon M, Valenzano T, et al. The Effectiveness of the Head-Turn-Plus-Chin-Down Maneuver for Eliminating Vallecular Residue. Codas 2016; 28:113-117
- Gramigna GD. How to perform video-fluoroscopic swallowing studies. GI Motility online 2006; https://www.nature.com/gimo/contents/pt1/full/gimo95.html
- Logemann, J. A., Kahrilas, P. J., Kobara, M., Vakil, N. B. (1989). The benefit of head rotation on pharyngoesophageal dysphagia. Archives of Physical Medicine and Rehabilitation 70 (10): 767-771

- Kuhlemeier, K. V., Palmer, J. B., & Rosenberg, D. (2001). Effect of Liquid Bolus Consistency and Delivery Method on Aspiration and Pharyngeal Retention in Dysphagia Patients. Dysphagia: 16, 119-122
- McCulloch, T. M., Hofmann, M. R., Ciucci, M. R. (2010). High-Resolution Manometry of Pharyngeal Swallow Pressure Events Associated with Head Turn and Chin Tuck. Ann Otol Rhinol Laryngol. 119, 369-376
- Ohmae, Y., Logemann, J. A., Kaiser, P., Hanson, D. G., Kahrilas, P. J. (1996). Effects of two breath-holding maneuvers on oropharyngeal swallow. Annals of Otology, Rhinology, and Laryngology 105 (2): 123-131.
- Shanahan, T. K., Logemann, J. A., Rademaker, A.W., Pauloski, B. R., Kahrilas, P. J. (1993). Chin-down posture effect on aspiration in dysphagic patients. Arch Phys Med Rehabil 74 (7): 736-39
- Welch, M. V., Logemann, J. A., Rademaker, A.W., Kahrilas, P. J. (1993): Changes in pharyngeal dimensions effected by chin tuck. Archives of Physical Medicine and Rehabilitation 74 (2): 178-181

D. Processing the information of the VFSS study. The report (*not open access*)

- Schoeppe F, Sommer WH, Haack M, et al. Structured reports of videofluoroscopic swallowing studies have the potential to improve overall report quality compared to free text reports. Eur Radiol 2018. 28:308-315
- Cocks N, Ferreira H. What information do UK speech and language therapists use when making oral versus nonoral feeding recommendations for adults with oropharyngeal dysphagia? Dysphagia ma2013.28:43-57
- Brodsky, M. A. (2012). Standardized Clinical reporting: Writing for the Reader. In: Videofluoroscopy. A multidisciplinary Team Approach. Newman, R. D. & Nightingale, J. M. (ed). Plural Publishing. San Diego