

## UEP Position Statement on EXIT-strategy of Phoniatic and Laryngological services: staying safe and getting back to normal after peak of COVID-19. Issued on 25.5.2020

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## **Abstract**

The following updated, 25<sup>th</sup> May 2020 position statement from the Union of the European Phoniaticians (UEP) contains a series of recommendations to Phoniaticians and ENTs who provide and/or run Voice, Swallowing, Speech and Language or Pediatric Audiology services. Please note that this is the update of the previous statement issued on 21<sup>st</sup> April 2020. This material is specifically aimed to inform clinical practices in countries where clinics and operating rooms are reopening for elective work.

It endeavors to present a current European view in relation to common procedures, many of which fall under the aegis of aerosol generating procedures.

As evidence continues to build, some of the recommended practices will undoubtedly evolve, but it is hoped that it will offer clinicians precepts on safe clinical practice.

Key words: Phoniaticics, Larynx, ENT, Voice, Swallow, Pediatric Audiology, CoViD-19

### **Bullet Points:**

1. ENT and Phoniatic practitioners undertake aerosol generating procedures, and are at particularly high risk of contracting the COVID-19 virus
2. Asymptomatic carriers of the virus are commonplace, and false negative tests occur, thus all surgical interventions must be viewed from the perspective of management of a COVID positive patient.
3. Symptomatic patients should be regarded as COVID-19 positive until proven otherwise.
4. A paradigm shift is required, away from face-to-face examination and to the provision of diagnostics and therapy through solutions embracing telehealth.
5. Asymptomatic patients undergoing elective office procedures or operations under local or general anesthesia that include mucosal surface puncture or injections should be SARS-CoV-2 tested 2-3 days before the operation followed by quarantine until the operation day.

## Introduction

The COVID-19 pandemic continues. However new onset infection and mortality rates appear to have come to a plateau or to have decreased in many countries. The following material is particularly presented to inform the practices of ENT Surgeons and Phoniaticians in countries where clinics and operating rooms are reopening for elective work.

The following updated, 25<sup>th</sup> May 2020 position statement from the Union of the European Phoniaticians (UEP) contains a series of recommendations to Phoniaticians and ENTs who provide and/or run Voice, Swallowing, Speech and Language or Pediatric Audiology services. Please note that this is the update of the previous statement issued on 21<sup>st</sup> April 2020.

The opinions and recommendations below are the collective recommendation of UEP presented through the authors in their personal capacities. They are not necessarily the same in each of the authors' hospital/clinic neither do they necessarily represent the opinion of the authors' hospital/practice.

Health care providers are at high risk of contracting the SARS-Cov-2 virus. Of the first 138 SARS-Cov-2 inpatients, 40 were health care workers (1). Among health care practitioners, ENT Surgeons and Phoniaticians are at increased risk (2). As a poignant example, the first documented death of a physician was that of an ENT surgeon in Wuhan, China on January 25th, 2020 (3).

This increased risk is due in part to exposure to aerosol generation (4). due to the presence of the virus in the nasal and pharyngeal cavities of infected individuals. Viral load has been noted to be higher in the nose than the throat. This places practitioners who carry out nasendoscopic examinations at higher risk, e.g. Phoniaticians and ENT Surgeons, particularly Laryngologists (5).

Risk of infection likely results not only from infectious aerosol being directly inhaled, but also from it forming on contaminated surfaces both during and after procedures. An increased risk of exposure has been found during head and neck examinations, endoscopies and in general, during interventions in the upper airway and food passages (6-9).

Some asymptomatic individuals have been found to harbor active viral infection and to be potentially infectious. Viral load in infected but asymptomatic individuals has been noted to be similar to that in symptomatic patients (5). This is underscored by a study from a large German outbreak that showed 22.2% of all infected individuals to be asymptomatic. Even in areas where there had been extensive testing there may be 5-times as many unrecognized cases. (10).

Accordingly, **personal protective equipment (PPE) including respiratory FFP3 masks, face and eye protection, cap, gloves and fluid-resistant gown) should be used even if the patient is totally asymptomatic as long as the procedure includes examination or manipulation of the patient's throat, nose, larynx or upper airway. Video examples of donning PPE can be found here (11, 12).** Use of such equipment is important wherever such examinations take place, be it in community polyclinics, private clinics, hospital outpatient settings or wards, casualty, intensive care settings or operating theatres.

As noted in the introduction, phoniatic and ENT clinics are now being reopened in many countries, the proviso being that patient-related pathways and clinic or hospital-related guidelines must be followed. This applies generally, but is particularly essential in clinical scenarios that include

potential Aerosol Generating Procedures (AGP\*). Such precautions and suggestions are discussed below under different clinical scenarios. “Telehealth” in the text means instances in which both the care provider and the patient are communicating remotely through video and/or audio applications.

Based on the fact that the current situation may continue for months if not longer, we recommend the following (the new ‘norm’)

**GENERAL:**

- ***Routine face- to-face examinations, office procedures and operations of an elective nature should only be undertaken on asymptomatic patients.***
- ***Asymptomatic patients undergoing elective office procedures or operations under local or general anesthesia that include mucosal surface puncture or injections should be SARS-CoV-2 tested 2-3 days before the operation followed by quarantine until the operation day.***
- ***Symptomatic patients should be regarded as COVID-19 positive until proven otherwise.***
- ***Videoendoscopy is preferred to ‘naked eye’ nasendoscopy. Topical anesthesia of the nasal cavity is preferably done with anesthetic- soaked cotton or gel rather than spray or is avoided completely.***
- ***After each procedure with patients gagging or coughing, there should be a minimal time interval of 30 minutes to allow for thorough cleaning of the facility. This applies to nasendoscopy/ video-laryngoscopy, office procedures and Fiberoptic Endoscopic Evaluation of Swallowing (FEES)***
- ***A paradigm shift is required, away from face-to-face examination and to the provision of diagnostics and therapy through solutions embracing telehealth.***

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\* An aerosol generating procedure (AGP) is a procedure which potentially stimulates explosive expulsion of air via coughing, sneezing etc. and results in the release of airborne particles thereby increasing the risk of airborne transmissions of infections that are classically spread by droplet transmission. Such procedures include for example, but are not limited to:

1. Tracheotomy/tracheostomy operations including percutaneous dilatation tracheostomy
2. Intubation and extubation
3. Open suctioning, positive air way pressure, jet-ventilation, high-frequency ventilation, high-flow nasal oxygen
4. Bronchoscopy
5. Flexible or rigid endoscopic oral, trans-nasal and laryngeal examinations including office-operations.
6. Drainage of quinsy infection
7. Management of epistaxis
8. Removal of fishbone or other foreign body in the pharynx or nasal cavity.
9. Trans-oral or trans-nasal injections into or manipulation of the larynx
10. Trans-oral or trans-nasal oesophagoscopy or gastroscopy
11. Face to face trans-cricothyroid or trans-oral injection into the larynx, pharynx or mouth
12. Face to face Ultrasound guided injections or procedures in the head and neck
13. Face to face dental or oral cavity procedures

## **Voice/ airway**

### **Office examination**

Routine office examinations can be recommenced for elective ENT and Phoniatic patients and services providing the local COVID-19 pandemic-related situation has stabilized and guidelines are followed. Priority should be given to patients in whom there is the possibility of malignancy or airway compromise. Full PPE including FFP3 masks should be used even during the examination of asymptomatic patients. This includes tracheostomy tube changes and change/adjustment of voice prostheses.

### **Office procedures**

Office procedures under local (or no) anesthesia that include puncture of the vocal folds or mucosal cover can be undertaken, however full PPE including FFP3 must be worn, and the patient should be SARS-CoV-2 tested 2-3 days prior to operation. Such operations include, for example: vocal fold augmentation and other procedures done through a channeled fiberscope. Ideally such operations should be performed in ventilated, low-pressurized rooms.

### **Laryngeal procedures under General Anesthesia**

Laryngeal procedures in the Operating Room can be undertaken for asymptomatic patients, but they must be preceded by SARS-CoV-2 testing 2-3 days prior to the operation. Priority must be given to cases where a malignancy is suspected and the need for biopsies or curative surgery is imperative, or where the airway itself is at risk. Countrywide or local guidelines should be followed as to prioritising of patients.

Operations such as tracheostomy and operations where jet-ventilation, high-flow humidified oxygen, laser, micro-debrider and suction-cautery pose a greater risk to the surgeon and operating room personnel. Flow-controlled ventilation utilizing small bore cuffed intubation tubes may offer a safer alternative to jet-ventilation in certain circumstances. In general, these operations should be preceded by adaptation of the operation room to lower pressure. Over pressure could increase the risk of viral spreading (in the instance of a falsely- negative tested patient). Surgical suction devices as well as smoke evacuators should be equipped with filtration systems with greater than 99% efficiency at removal of particles sized 0.1  $\mu\text{m}$ , thereby diminishing the risk of contamination during the operation. That said, filtration devices do not change the classification of an AGP.

### **Testing of patients**

In an elective case scenario, and in the absence of symptoms that can be attributed to SARS-CoV2, one negative test should be adequate. In an emergency scenario, testing or awaiting the result of a test should not delay an operation; however, SARS-CoV2 positivity must be assumed.

In elective circumstances, patients with positive results, and in the absence of SARS-CoV2 symptoms, should be retested to avoid delays due to false positive results. A

confirmed positive result mandates delay of surgery for at least two weeks and until a further test is negative (assuming such delay does not entail danger to the patient's airway or life).

All emergency cases in which SARS-CoV2 testing is not possible due to time constraints, or in which the test has come back as positive, should be considered to be SARS-CoV2 positive. When operating on positive cases, PPE ideally includes (13) Powered Air-purifying Respirators (PAPR) for all personnel in the operation room.

### **Telehealth**

Positive lessons of telehealth learned during the pandemic should continue to be utilized both in history taking and in provisions of voice and other phoniatic therapy to our patients. Face-to-face voice therapy should be changed to remote voice therapy. Smartphone apps should be utilized if available.

Tools of Telehealth as well as real time video-communication must comply with national safety and security regulations.

**Patients receiving regular botulinum injections for voice spasms, tremors or vocal cord dysfunction (VCD):** In asymptomatic patients, injections under EMG guidance that do not puncture the vocal fold mucosal covering can be undertaken, without prior SARS-CoV testing, if all health carers in the procedure room wear PPE including FFP3 masks. Such injections include, for example, those performed via a cricothyroid approach into the thyroarytenoid muscle. Similar recommendations apply to Laryngeal EMG examinations. Patients should also wear surgical masks during the procedure. History taking and patient interview should be done utilizing telehealth or in a room separate from the one in which the actual procedure is undertaken.

Injections through a channeled fiberscope and other injections likely to induce cough, for example those into the posterior cricoarytenoid muscle, or those through a trans-tracheal, trans-laryngeal or trans-oral route should only be done after confirmed negative status on a SARS-CoV2 test, but still under strict PPE adherence (due to the risk of a false negative).

## **Swallowing**

FEES and Videofluoroscopic Swallow Studies (VFSS) are Aerosol Generating Procedures (AGP). Such examinations require PPE including FFP3.

In cases in which there is a clear need for assessment of swallow to enable decisions such as those relating to PEG placement, it is preferable to use videofluoroscopy or modified-FEES with only one or two consistencies, in order to reduce to a minimum the time of the actual procedure.

For new referrals: Each department/team needs to determine the “time sensitivity”, “urgency”, and “preferred short protocol” on a case-by-case basis. They must take into account each patient’s medical condition, social circumstances, and needs. Swallowing examination and therapy can potentially be started through remote telehealth options.

On the ward, COVID-positive patients with swallowing problems should be managed, if possible, through indirect assessment and treatment provided by the health care personnel who are caring for them. Remote telehealth and diagnostics should be used for such patients as much as possible.

In COVID-19 suspected patients, it is recommended that the health-carer stands 2 meters away from the patient while evaluating oromotor function. Closer contact is required when assessing oral mucosa, palate and dentition. If closer contact is needed, the investigator should stand to the side of the bed facing away from the patient. PPE must be worn in accordance with local guidelines, but with a minimum of FP3 mask, visor, cap and fluid resistant gown.

## **Speech and language**

Speech and language assessment should be undertaken partially or wholly through telehealth, whenever possible. Routine questionnaires that can be completed prior to the actual consultation should be used and be available to the examiner.

When treating children, the number of adults with the child on each visit should be limited to one. When treating adults, they should be requested to visit the clinics alone unless their underlying cognitive, motor, or other medical conditions require carers to be present.

## **Pediatric audiology**

Children with acute conditions necessitating a visit to the hearing center will need to be seen on a face-to-face basis. It is recommended that examination of the ears and the hearing assessment be undertaken as expeditiously as possible. Screening questionnaires should be completed by the parent prior to the consultation in an attempt to assist the examiner, prioritize therapy, and if possible, defer the physical examination.

Screening of newborn hearing should be maintained. This includes the Early Detection of Hearing Impairment (EDHI) assessment for neonates suspected (from screening assessments) to have congenital hearing impairment.

In general, face-to-face clinical time between the clinician and child, and time spent waiting by the child in the clinic should be kept to the minimum, if possible with no waiting time at all.

**Disinfection:** Extensive attention should be given to disinfection of the examination rooms and the equipment within them. We recommend strict compliance with local health and safety regulations relating to sterilization and disinfection. Disposable equipment should be preferably used wherever possible.

**Reimbursement:** The UEP recommends that telehealth and teleconsultations be recognized and reimbursed in accordance with local/ national policies during this COVID pandemic.

**Confidentiality:** Confidentiality is paramount. General data protection regulations (GDPR), local/ regional variants and appropriate legislation must be complied with. In particular, when undertaking a remote consultation, the examiner must introduce themselves thoroughly, must explain the rationale for the examination, and must obtain informed consent to proceed. They must document the examination in some form of contemporaneous manner and must send their findings (with permission of the patient/carer) to the referring GP or physician and other appropriate individuals. The examiner must be aware of their duty of care, be alert to safeguarding issues, and understand the mechanism of escalation.

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## References

- (1) Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, et al. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus–infected pneumonia in Wuhan, China. *JAMA* 2020;323(11):1061-1069.
- (2) Patel ZM, Fernandez-Miranda J, Hwang PH, Nayak JV, Dodd R, Sajjadi H, et al. Precautions for endoscopic transnasal skull base surgery during the COVID-19 pandemic. *Neurosurgery* 2020.
- (3) Chan JY, Wong EW, Lam W. Practical aspects of otolaryngologic clinical services during the 2019 novel coronavirus epidemic: an experience in Hong Kong. *JAMA Otolaryngology–Head & Neck Surgery* 2020.
- (4) Thamboo A, Lea J, Sommer DD, Sowerby L, Abdalkhani A, Diamond C, et al. Clinical evidence based review and recommendations of aerosol generating medical procedures in otolaryngology–head and neck surgery during the COVID-19 pandemic. *Journal of Otolaryngology-Head & Neck Surgery* 2020;49(1):1-14.
- (5) Zou L, Ruan F, Huang M, Liang L, Huang H, Hong Z, et al. SARS-CoV-2 viral load in upper respiratory specimens of infected patients. *N Engl J Med* 2020;382(12):1177-1179.
- (6) Chan JY, Wong EW, Lam W. Practical aspects of otolaryngologic clinical services during the 2019 novel coronavirus epidemic: an experience in Hong Kong. *JAMA Otolaryngology–Head & Neck Surgery* 2020.
- (7) Confederation of European Otorhinolaryngology-Head and Neck Surgery. CEORL-HNS statement on COVID-19.
- (8) German Society of ENT Medicine, Head and Neck Surgery, German Professional Association of Ear, Nose and Throat Physicians and German Society of Phoniatics and Pedaudiology and German Professional Association of Phoniatics and Pedaudiology. Statement on respiratory maska for Ear, Nose and Throat Speacialists. . 2020.
- (9) Tran K, Cimon K, Severn M, Pessoa-Silva CL, Conly J. Aerosol generating procedures and risk of transmission of acute respiratory infections to healthcare workers: a systematic review. *PLoS One* 2012;7(4):e35797.
- (10) Streeck H, Schulte B, Kuemmerer B, Richter E, Höller T, Fuhrmann C, et al. Infection fatality rate of SARS-CoV-2 infection in a German community with a super-spreading event. *medRxiv* 2020.
- (11) Laryngoscopy Protection during COVID-19 pandemic: Tutorial #1 - Preparation phase . 2020;[https://youtu.be/E0IaA\\_GENN4](https://youtu.be/E0IaA_GENN4).
- (12) Laryngoscopy Protection during COVID-19 -Tutorial #2 - Transnasal Endoscopy . ;<https://youtu.be/MrpU73yaXZ8>.
- (13) Van Gerven L, Hellings PW, Cox T, Fokkens W, Hopkins C, Hox V, et al. Personal protection and delivery of rhinologic and endoscopic skull base procedures during the COVID-19 outbreak. *Rhinology Journal* 2020.