## Information for patients

Patients and members of the public seeking information on coronavirus and COVID-19 can find valuable advice and an informative overview of the situation on the websites of their local health authorities.

COVID-19 is a new illness that can affect your lungs and airways. It's caused by a virus called coronavirus.

What can you do yourself:

* Wash your hands frequently and thoroughly with soap
* Cough and sneeze in your elbow
* Use paper tissues
* Do not touch others
* Keep a distance of 1.5 meters from other people
* Stay at home when you have cold symptoms, instant loss of smell, fever or new cough
* Do not go to your GP or hospital. If you think you are infected call first and ask what to do.

**Keep using your medication**

Patients are advised to keep using their medication like nasal corticosteroids, antihistamines and antibiotics.

When you use systemic corticosteroids: consult your doctor whether to use them when you have symptoms to could point to a COVID-19 infection.

## Information for rhinologists

**Risk for Otorhinolaryngologists**

Risk to healthcare workers through transmission of COVID-19 is primarily through droplet spread. Otorhinolaryngologists are exposed to a high reservoir of viral load as we are dealing with the nose and airway.

ENT may not seem to be in the frontline with COVID-19 but we do have a key role to play, and this must be planned. All the data from China, Iran, Italy suggests that ENT surgeons are an extremely high-risk group therefore we need to be vigilant to protect ourselves. There is reliable information coming from the US indicating that otolaryngology is a high-risk group from COVID-19 infection. There is anecdotal evidence that a single endoscopic sinus case in China reportedly infected 14 people who were in the operating room. There is a presumed high risk in any procedures involving the airway. We advise to postpone all non-acute surgery. Hospitals need to ensure ENT surgeons are supplied with the necessary PPE in order to avoid fatalities.

**What patients do we see at the outpatient clinic**

We advise to see only patients that need non-elective care in the outpatient clinic. For patients that need to be seen in the outpatient clinic the regime for PPE would be a fluid resistant (FFP2/N95) surgical mask, single-use impermeable disposable gown, gloves and eye protection is advised. This applies to examinations including flexible and rigid nasendoscopy.

Many patients can be “seen” by telephone consultation.

**Loss of smell**

A significant part of the COVID-19 patients (20-60%) appear to have loss of smell. Loss of smell can be the presenting symptom before other symptoms like coughing/fever occur.

Patients with sudden onset loss of smell should be considered to be COVID-19 positive.

**Use of medication by our patients**

Patients are advised to keep using their regular medication. Corona virus binds to the ACE-2 receptor (and TMPRSS2). Although there is limited data that systemic corticosteroids may be increasing ARDS in patients with SARS and MERS, there is no data indicating that the use of local corticosteroids will increase the susceptibility to corona virus. The pulmonologists also advise to continue inhaled corticosteroids.

One could even argue that stopping nasal corticosteroids in patients needing them will result in more symptoms of allergic rhinitis/rhinosinusitis that may blur symptoms of COVID-19. Because it seems that patients can shed virus before they have fever, this may even increase the risk for themselves and their surroundings.

**Surgery**

In response to pressures on the health system, elective surgery will be curtailed. Non-elective patients will continue to need care. We should seek the best local solutions to continue the proper management of these patients whilst protecting ourselves through proper supply of protective equipment. We understand that resources are under pressure for the response to COVID-19, however the experience in areas with many diseased highlights the necessity for PPE for ENTs.

We will be involved in airway management. We may also need to work outside of our specific areas of training and expertise, in the exceptional circumstances we may face.

We need in particular to consider patients who are vulnerable to the consequences of catching COVID-19, including those with a tracheostomy or respiratory compromise and patients with immune suppression – such as patients with head and neck cancer – either during or soon after treatment.

Important recommendations:

\* Avoid powered atomisation – use actuated pumps sprays or similar soaked pledgets for topical anaesthesia

\* Elective airway surgery patients (sinonasal, nasopharyngeal, oropharyngeal, laryngeal and tracheal) should be tested for COVID-19, where and when available, and be shown to be negative before proceeding; for acute cases specific PPE should be utilised; patients should be advised to practice hand hygiene and social distancing prior to surgery

\* Limit intervention in the clinic/rooms as much as possible and wear appropriate protection

\* Postpone any COVID-19 positive cases, anyone with recent travel history, anyone with potential symptoms of COVID-19 or anyone with COVID-19 contacts

\* Advice should be given to all COVID-19 negative patients undergoing elective surgery to practice social distancing and hand hygiene between the time of testing until the time of surgery.

**Personal Protective Equipment (PPE) at surgery**

FFPW/FFP2 masks and full eye protection or PAPRs (Powered, Air Purifying Respirators) are recommended for COVID-19 positive patients / urgent patients that cannot be tested requiring aerosol generating procedures – this includes intubation, open suctioning, tracheostomy, high speed drilling, use of shavers and bronchoscopy. Minimal number of health care professionals should be in the OR. All should wear adequate PPE.

**Information from colleagues in high incidence COVID-19 areas:**

The compilation of information below is based mostly on personal communication with international colleagues reporting their individual experiences, and more data is needed before policies are set long-term. However, based on the information below, it would be prudent to exercise an abundance of caution before we can gather more data, so as not to repeat the same mistakes that have been made elsewhere.

Dr. Xiaoguang Tong, our colleague in neurosurgery, serving in one of the hospitals in Wuhan, has informed us that the first case with the most widespread infection in Wuhan was an endoscopic pituitary surgery. This has now also been documented via another source in China Newsweek. All 14 people who came in and out of the OR during that case became infected. He saw this repeat with other endoscopic cases. He has also shared that a significant number of doctors who died in China were ENTs and Ophthalmologists, possibly due to the high viral shedding from the nasal cavity. This has now been confirmed in the media as well. This logically makes sense to us based on data showing higher viral load in nasal swabs than lower in the respiratory tract, as well as the knowledge that if the viral particles become aerosolized , which appears possible during endoscopy (let alone endoscopic surgery, where the epithelial lining is actively being disrupted), they stay in the air for at least 3 hours, if not longer. ,

He has further counseled and warned that he believes endoscopic endonasal cases are among the highest risk cases for spread of infection. Based on their experience in Wuhan, N95 masks were not enough to control this spread. Not until PAPRs (Powered, Air Purifying Respirators) were used during these cases, did the spread become controlled. He also explained that testing twice appeared necessary, separated by 24 hours in between tests, to truly confirm negativity to COVID-19, based on the potential for false negative results, although it is unclear which test was being used and how that test compares to what we are currently using.

From our colleagues in Iran, Dr. Ebrahim Rampa, Professor of Otolaryngology at Tehran University Medical Sciences, Dr. Saee Atighechi, Associate Professor of Otolaryngology at Yazd University School of Medicine, and Dr. Mohammed Hossein Baradanfar, Professor and Chairman of Otolaryngology Yazd University School of Medicine, we have additionally heard from Iran that at least 20 ENTs are currently hospitalized with COVID-19, with 20 more in isolation at home. They are testing only people who have been admitted to the hospital, so those twenty at home are not confirmed, but have classic symptoms. A previously healthy 60yo facial plastic surgeon died from COVID-19 three days ago. A young, otherwise healthy ENT chief resident had a short prodrome, rapidly decompensated and died also. They do not test the deceased, but all his colleagues and faculty think it was from COVID-19.

From our colleague Dr. Puya Deghani-Mobaraki in Italy, he also reports ENTs being affected adversely, but his information is about the possible loss of smell and taste that this virus brings. They are not only seeing it in their patients, but they have noticed it within their own ranks, in otherwise healthy asymptomatic doctors, at rates far above what could be considered normal. This observation has also been reported in the media regarding patients, as an under-reported aspect of this disease process.

Based on this information, and until we know more, we are performing only urgent/emergent cases of endoscopic endonasal surgery at Stanford University at this time. We will be testing these patients pre-operatively for COVID-19 and proceed if negative. We have also requested full PAPRs for ourselves and all team members in the OR for any of these cases that do actually need to move forward, either for cases in which we cannot wait for test results or for cases that test positive but still need to proceed. PAPRs are in even shorter supply than N95 masks, but we feel strongly that they are necessary for our safety and the safety of our teams. Conservation of this precious resource is another reason to limit these operations to the bare minimum at this time. To not heed the cautionary advice of those who have already gone through this and lost their own colleagues, does not seem wise or prudent. In the clinic setting, we have similarly restricted visits to only urgent/emergent patients and have ceased the use of spray anesthetic/decongestants, opting instead for nasal pledgets as needed, but preferably avoiding endoscopy whenever possible. We are using N95 masks, face shields and gowns for all nasal endoscopies.

We extend wishes of safety and health to all our otorhinolaryngology and neurosurgery colleagues at this challenging time.

References and interesting papers:

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Disclaimer

The European Rhinologic Society has developed this information as guidance for its members. This is based on information available at the time of writing and the Society recognises that the situation is evolving rapidly, so recommendations may change. The guidance included in this document does not replace regular standards of care, nor do they replace the application of clinical judgement to each individual presentation, nor variations due to jurisdiction or facility type.

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