

VIEWPOINT

Practical Aspects of Otolaryngologic Clinical Services During the 2019 Novel Coronavirus Epidemic

An Experience in Hong Kong

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The 2019 novel coronavirus disease (COVID-19) with an epidemic centered in Wuhan, China, was declared a public health emergency on January 20, 2020, by the World Health Organization and a public health emergency by the US on January 31, 2020. A total of 28 130 cases in mainland China and 22 cases in the Hong Kong Special Administrative Region (HKSAR) have been confirmed as of February 6, 2020, with a reported epidemic doubling time of 6.4 days.¹ The early reported mortality rate of 4.3%² appears to be lower than that of severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome, but this initial figure is believed likely to be an underestimation, as most of the confirmed patients are still inpatients, and their condition is not yet resolved.

The first fatality of a physician documented globally was that of an otolaryngology physician in Wuhan on January 25, 2020, whose situation was similar to that of an otolaryngologist who died of SARS in the HKSAR in 2003. Thus, it is imperative that otolaryngologists and physicians globally stay abreast of this outbreak and appreciate essential precautionary practices that are potentially crucial in protecting themselves and patients during this epidemic. In many regions globally, including China and the HKSAR, it is a very common practice for patients with upper respiratory tract infections to seek family practitioners and otolaryngologists as a primary care physician. Such a practice inadvertently poses inherent risks for physicians examining patients potentially carrying the virus. The route of transmission has yet to be firmly established. However, based on current evidence, it is speculated that respiratory droplets and possibly fecal-oral routes are culprits, similar to the SARS epidemic in 2003.^{3,4}

The association of COVID-19 with clinical services to the public has been severely disruptive, as redistribution of manpower and resources are required to critically meet the current and anticipated hospital service needs during the outbreak. There has been a reduction in elective clinics and operations to mobilize manpower to acute specialties combatting the outbreak and maximize hospital beds numbers available in anticipation of the outbreak. There is also understandably fear from the public in visiting hospitals. Both factors have resulted in a more than 50% reduction in daily patient visits to our specialist clinic. Although essential emergency and oncologic surgeries are still proceeding as usual, contingency plans are in place to reluctantly reduce such services if the outbreak becomes critical and significant. This rapid change in clinic provisions and rescheduling of patients causes substantial inconvenience to patients and potentially poses a risk with

delayed assessments but is a necessity given the gravity of the current situation.

An area of particular concern in our field is aerosol-generating procedures that would include open systems for tracheostomies and possibly the performance of flexible laryngoscopy. With the current COVID-19 outbreak in our region and the previous experiences from SARS, all outpatient clinic patients are seen with otolaryngology physicians mandatorily wearing at a minimum an N95 respirator, gown, cap, eye protection, and gloves.⁵ This personal protective equipment (PPE) setting is inevitably cumbersome and uncomfortable. However, with substantial presymptomatic carriers of the virus having a mean incubation period of 5.2 days (with 95% of the distribution at 12.5 days),⁶ such PPE precautionary practices are an absolute necessity.

Our clinic layout has also been adjusted to facilitate a separate gown-up and gown-down area to prevent cross-contamination of practicing clinical areas. All patients attending the outpatient clinic department must have their body temperatures checked on arrival. Acknowledging the fact that many presymptomatic patients may not be febrile despite being COVID-19 carriers, we assess recent travel histories of all patients attending the clinic to facilitate them being seen in the accident and emergency departments as needed.

Our patient wards are open wards containing cubicles of 6 patients. Patients with a tracheostomy are all now covered with a closed system identical to when a patient is connected to a mechanical ventilator. This is to minimize the aerosol generated that could cross-contaminate the surrounding patients and health care workers given the suction requirements of these patients. All bedside procedures are performed in a separate treatment room away from patient cubicles with all health care workers wearing PPE as in our clinics.

Through all these changes in outpatient clinics and inpatient services, we are actively limiting the number of procedures performed and patients seen who are triaged as clinically nonurgent. Such practices help to eliminate unnecessary exposure and contamination at clinics, but this also results in delayed assessments for these patients, and ultimately it also adds a burden to the system because all of these patients must still be seen after the epidemic has settled.

The importance of our experience is that with the high risk of substantial exportation of asymptomatic patients globally, the risk of self-sustaining outbreaks globally appears inevitable, in particular in regions with close

travel links with China. It is essential that these set measures and precautionary plans are readily available for use globally to fundamentally protect physicians during this epidemic in a timely manner.

Otolaryngologists are at particularly high risk even when performing routine procedures and ought to be extra vigilant given the global footprint of the virus.

ARTICLE INFORMATION

Published Online: March 20, 2020.
doi:10.1001/jamaoto.2020.0488

Conflict of Interest Disclosures: None reported.

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