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Role and Management of a Head and Neck Department during the COVID-19 Outbreak in Lombardy

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Abstract

The recent Italian outbreak of coronavirus disease 2019 led to an unprecedented burden on our health care system. Despite head and neck–otolaryngology not being a front-line specialty in dealing with this disease, our department had to face several specific issues. Despite a massive reallocation of resources in the hospital, we managed to keep the service active, improving safety measures for our personnel, specifically during common otolaryngologic maneuvers known to produce aerosols. Furthermore, we strived to maintain our teaching role, giving residents an inclusive role in managing the response to the emergency state, and we progressively integrated our inactive specialists into other service rotations to relieve front-line colleagues' burden. Specific issues and management decisions are discussed in detail in the article.

Keywords

new coronavirus disease 19, otolaryngology, head and neck, health care workers' safety

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Introduction

The identification of the first Italian patient with coronavirus disease 2019 (COVID-19) on February 20, 2020, led to the discovery of a rapidly escalating infection cluster.

Despite intensive care units (ICUs), pneumology units, and infectious disease units bearing the heaviest health care burden during this outbreak,[1] other departments had to face an increased infectious risk while keeping up with the demands of patients.

While head and neck–otolaryngology (H&N) departments are not standing in the first line of this struggle, our specificity in caring about the upper airways questioned us in terms of our clinical role and health care professionals' safety and teaching duties, wondering where it was still feasible and reasonable to keep the department working. This viewpoint article focuses on the first 3 weeks of work in our H&N department, located in 1 of the 15 COVID-19 selected first-responder hub hospitals in Lombardy.[2]

Clinical Role of an H&N Department during an Infective Health Care Emergency

H&N patients have a known high rate of self-referral to specialists[3]: early termination of the outpatient service in our clinic might have led to an increased demand of H&N services through the emergency department, already overburdened by patients with COVID-19. Therefore, our decision was to keep the service running, progressively reducing outpatient access to that indicated as being urgent by primary care physicians. Furthermore, our H&N department kept a ''fast-track'' service for the emergency department, where patients who required an urgent consultation and were free from upper airway symptoms or fever were promptly sent to the specialist, thus reducing the chances of infection spread.

We also maintained basic surgical activity, despite the inevitable reduction of operating room availability due to the conversion of anesthesiologists and scrub nurses into ICU personnel. We warranted all H&N emergency procedures and a significant number of oncologic surgery procedures, relocating to other COVID-19–free institutions only those patients requiring either postoperative ICU monitoring or presumably long hospital stays.

Last but not least, a H&N running service granted our ICU the surgical expertise required for performing surgical tracheostomies in patients with COVID-19 who required long-term ventilation and had anatomic neck features that discouraged nonsurgical tracheostomies (2 patients as of March 18).

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Health Care Professionals and Patients' Safety in an H&N Department during a Respiratory Virus Pandemic

While adverse effects on all health care workers are one of the main concerns during infective outbreaks,[4] a respiratory virus pandemic poses a particular threat for professionals working on the respiratory tract. Keeping the department running required implementing strong preventive measures for all professionals, acting proactively with patients, and emphasizing among the team the importance of self-care as the center of the response.[4]

During week 1, all operators were asked to wear surgical masks at all times and employ N95 respirators and safety goggles during aerosol-producing procedures, such as upper airway endoscopies, surgical procedures with local anesthesia, and nasal cauteries. As a consequence of the escalating outbreak, starting from week 2, N95 masks and safety goggles were used for any operator examining patients.

We took extreme care to reduce interoperator exposure during meals and meetings, optimizing interpersonal distances, though encouraging interpersonal relationships to share common thoughts, fears, and expectations. In the same regard, we intensified departmental meetings, allowing all members of the medical staff to share their views and shape a shared response to the constantly changing needs.

For patients, a nurse-operated triage allowed us to identify those with potential respiratory virus–induced symptoms, protect them with a surgical mask, and isolate them from other patients until they received medical attention. Furthermore, waiting times were kept at a minimum at all times, while waiting rooms were reshaped to maintain at least 1 m of interpersonal distance, as required by the Italian government's recently introduced regulation.

Keeping Up with the Teaching Role during the Emergency

A first, obvious plan for H&N residents in our staff was to keep them the most at large from any infective risk and sending them home with study and research tasks. Following the huge request for health care personnel in Italy, we allowed residents who were not directly involved in the H&N clinical activities to apply on a voluntary basis to other duties (working in COVID-19 wards or emergency hotlines). The added teaching value was involving residents with every operative and clinical decision during these first weeks of the outbreak, providing them with an insight on the management of health care emergencies while keeping standard training as active as possible.

Reallocation of Underused Health Care Staff

The progressive workload reduction left part of our staff rotating into underused positions. While ward nurses were quickly relocated to other wards, it was harder to relocate specialists with little or no training in infectious diseases or lower respiratory tract infections. At the same time, COVID-19 wards requested further personnel, so we allowed H&N specialists to ''residentify,'' working as junior doctors with other, more pandemic-oriented specialists (infectious disease, internal medicine, and pneumology specialists), after providing a brief but effective focused training into COVID-19 workflow and procedures.[5]

Conclusions

Despite the emergency, these choices allowed us to grant prompt H&N services for a patient pool nearing 10^6 people with an affordable health care professional's working hours cost. Whether these apparently promising management choices will ultimately prove rewarding remains to be proven over the, hopefully short, course of this pandemic.

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Author Contributions

Alberto Maria Saibene, conception of work, drafting the work, final approval, agreement to be accountable for all aspects of the work; **Fabiana Allevi,** design of work, drafting the work, final approval, agreement to be accountable for all aspects of the work; **Federico Biglioli,** acquisition of data, critical revision of work, final approval, agreement to be accountable for all aspects of the work; **Giovanni Felisati,** acquisition of data, critical revision of work, final approval, agreement to be accountable for all aspects of the work.

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