

# **Role and management of a head and neck department during the COVID-19**

## **Outbreak in Lombardy**

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Funding: none

Conflict of interest: none

Authors' contribution:

AMS: Conception of work, drafting the work, final approval, agreement to be  
accountable for all aspects of the work

FA: Design of work, drafting the work, final approval, agreement to be accountable for  
all aspects of the work

FB: acquisition of data, critical revision of work, final approval, agreement to be  
accountable for all aspects of the work

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accountable for all aspects of the work

26 Keywords: new coronavirus disease 19; otolaryngology; head and neck; healthcare  
27 workers safety

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Abstract

The recent Italian outbreak of coronavirus disease 2019 led to an unprecedented burden on our healthcare 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 otolaryngological maneuvers known to produce aerosols. Furthermore we strived to maintain also 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 services rotations in order to relieve frontline colleagues' burden. Specific issues and management decisions are discussed in detail in the article.

## Introduction

The identification of the first Italian patient suffering from coronavirus disease 2019 (COVID-19) on February, the 20th, 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 healthcare 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 aren't standing in the first line of this struggle, our specificity in caring about the upper airways questioned us in terms of our clinical role, healthcare 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 one the 15 COVID-19 selected first-responder hub hospitals in Lombardy[2].

## The clinical role of a H&N department during a infective healthcare emergency

H&N patients have a known high rate of self-referral to specialists [3]: early termination of the outpatients service in our clinic might have led to an increased demand of H&N services through the Emergency Department (ED), already overburdened by COVID-19 patients. Therefore our decision was to keep the service running, progressively reducing the outpatient accesses to those indicated as urgent by primary care physicians.

Furthermore our H&N department kept a “fast-track” service for the ED, where patients requiring a urgent onsultation and free from upper airways symptoms or fever are promptly sent to the specialist, thus reducing the chances of infection spread.

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

Last but not least, a H&N running service granted our ICU the surgical expertise required for performing surgical tracheostomies in long-term ventilated COVID-19 patients with anatomical neck features discouraging non-surgical tracheostomies (2 patients as of March, the 18th).

## **Healthcare professional and patients safety in a H&N department during a respiratory virus pandemic**

While adverse effects on all healthcare 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 airways endoscopies, local anaesthesia surgical procedures or 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 in order to reduce inter-operator exposure during meals and meetings, optimizing interpersonal distances, though encouraging interpersonal relationship in order to share common thoughts, fears and expectations. In the same regards, we intensified departmental meetings, allowing each member 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 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 minimum at all times, while waiting rooms were reshaped in order to maintain at least 1 m interpersonal distance, as required by Italian government 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 healthcare personnel in Italy, we allowed residents who weren't 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 healthcare emergencies while keeping standard training as active as possible.

### **Re-allocation of underused healthcare 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 “residentialize”, working as junior doctors with other more pandemic-oriented specialists (infectious disease, internal medicine and pneumology specialist), 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 healthcare professionals working hours cost. Whether these apparently promising management choices will ultimately prove rewarding still remains to be proven over the, hopefully short, course of this pandemic.

## Acknowledgements

The authors would like to heartily thank all the personnel of the H&N Department of our hospital for their brave commitment during this unexpected adverse tide.

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