

# The Surge after the Surge: Anticipating the Increased Volume and Needs of Head and Neck Cancer Patients after the Peak in COVID-19

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## Abstract

The novel coronavirus disease 2019 (COVID-19) pandemic continues to have extensive effects on public health as it spreads rapidly across the globe. Head and neck cancer patients are a particularly susceptible population to these effects, and we expect there to be a potential surge in patients presenting with head and neck cancers after the surge in COVID-19. Furthermore, the impact of social distancing measures could result in a shift towards more advanced disease at presentation. With appropriate anticipation, multidisciplinary head and cancer teams could potentially minimize the impact of this surge and plan for strategies to provide optimal care for head and neck cancer patients.

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## Abstract

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## Introduction

Severe acute respiratory distress syndrome coronavirus-2 (SARS-CoV-2), which causes the novel coronavirus disease 2019 (COVID-19), has had an unprecedented effect on the world and the medical community. The World Health Organization declared it a pandemic on March 11, 2020, and, as of April 25, 2020, more than 2.8 million people have been infected, resulting in over 200,000 deaths worldwide.<sup>1-2</sup> COVID-19 has already had extraordinary effects on how multidisciplinary head and neck cancer (HNC) teams provide HNC patients in initial hotspots such as Wuhan, China and in Italy as well as the United States and throughout the world.<sup>3-5</sup> Following previous regional disasters such as Hurricane Katrina in 2008, there was an increase in incidence of patients presenting with advanced head and neck cancers.<sup>6</sup> We should be prepared for a similar surge in this patient population with the current pandemic after we pass the COVID-19 incidence peak. Although estimates of peak hospital resource use of the COVID-19 surge vary between models and geographic locations, estimates from the Institute of Health Metrics and Evaluation (IHME) estimate that the national peak was on April 17, 2020. However, estimated peaks from all states currently range from April 4, 2020 to May 14, 2020 with the possibility of another surge in the coming months.<sup>7</sup> The peak time of deaths from COVID-19 are roughly similar but include an even broader range of dates.

Multidisciplinary HNC teams need to be proactive in anticipating and preparing for the potential influx of HNC patients as public health guidelines shift from social distancing to containment strategies. By implementing tactics to mitigate and ultimately deal with this surge, HNC patients can receive quality and prompt care without increased adverse outcomes.

### *Reasons for the surge and ways to prevent it*

Post-Hurricane Katrina, reduced access to cancer care was significantly associated with difficulty obtaining treatment.<sup>6</sup> We believe that lack of timely access to care could lead to a similar post-COVID-19 surge of advanced stage HNC across the country. During these unprecedented times, there are many reasons for which a patient may be evaluated later than usual. Patients themselves may fear visiting their doctor at the risk of potentially contracting COVID-19, while physicians have limited their schedules and a patient could be given a later appointment time. Clinics have limited their schedules in order to optimize the safety of their staff and their patients. Reasons for these restricted schedules include but are not limited to, lack of personal protective equipment (PPE), lack of rapid COVID-19 testing, lack of transportation, social distancing and shelter-in-place orders, limiting office visits for patients deemed high risk of contracting COVID-19, lack of access to telemedicine services, and staffing concerns. Fear of contracting COVID-19 has been shown to play a significant role in patients not seeking medical care. In Italy, hospital statistics from the period of March 1-27, 2020, showed substantial decreases (ranging from 73-88%) in pediatric emergency department visits compared with the same time periods in 2018 and 2019. All parents who were surveyed reported avoiding hospitals for fear of infection with COVID-19.<sup>8</sup> In light of this, patients and their primary care physicians should be reminded that Otolaryngology – Head and Neck Surgery clinics are still open and consider patient safety the highest priority. This can be done through a variety of platforms such as social media, phone calls, emails, virtual town halls, and online patient portals just to name a few. Patients who are concerned about coming to clinic should be made aware that adequate precautions are in place to decrease the risk of contracting COVID-19 and when appropriate, can be offered telemedicine services.

### *Strategies to mitigate the HNC surge*

HNC patients, along with otolaryngologists, are high-risk populations for contracting COVID-19, primarily due to the fact that high viral loads of SARS-CoV-2 are located in the upper aerodigestive tract and procedures in this area (e.g. endoscopy, tracheostomy, surgery, etc.) lead to aerosolization of viral particles.<sup>9</sup> In addition to this, HNC patients in particular may be susceptible to rapid deterioration and worse outcomes (e.g. admission to an intensive care unit, mechanical ventilation, and death) if they do contract COVID-19 due to coexisting comorbidities.<sup>10-11</sup> Therefore, in order to manage the surge of HNC patients, certain precautions and strategies must be implemented by otolaryngologists to effectively treat these patients.<sup>12</sup> First and foremost, ample PPE should be available before seeing any patients or doing any procedures. In association with this, pre-appointment screening should be done on all patients and (rapid) COVID testing should be utilized when available and appropriate.<sup>13</sup>

Scheduling should be streamlined to allow for timely care. Telemedicine has been shown to be a valuable tool in this era, and although it comes with its' own limitations, it can be optimized in order to provide care for HNC patients.<sup>14-15</sup> Visits that are expected to predominantly involve reviewing results and counseling can be performed with telemedicine. One strategy would be to schedule all patients for telemedicine visits, except for those which require an in-office procedure (such as a biopsy or laryngoscopy) or for whom in-person physical examination is critical for decision-making (such as palpation of an oral tongue cancer).

Multidisciplinary care through a head and neck tumor board has been clearly shown to improve outcomes in patients with head and neck cancer.<sup>16-18</sup> During the COVID-19 pandemic, utilization of a multidisciplinary decision-making is of critical importance, especially when there is an influx of many patients during a time of limited resources and high risk of COVID-19 transmission. In some situations, surgical and non-surgical treatment options may have similar outcomes. In such situations, the preferred option is the one which allows for timely initiation of treatment while conserving resources and minimizing risks to patients and healthcare workers. Given the complexity of such decisions and influence by evolving local and regional factors, multidisciplinary consensus is critical. Since many otolaryngologists whose practices do not focus on HNC may not be experiencing the clinical volume that they normally have, their clinical skills could be of critical importance in managing an influx of HNC patients. Having these providers available to provide care for patients during the HNC surge could facilitate timely diagnosis, workup, and treatment. However, close monitoring of outcomes is necessary, as is always the case, to ensure that patients are receiving the highest level of care.

## Conclusion

COVID-19 continues to have widespread effects on the field of Otolaryngology – Head and Neck Surgery. In the coming weeks and months, there will very likely be a surge of HNC patients with delayed presentations due to a host of reasons. By incorporating preventative measures and strategies aimed at addressing this post-COVID-19 surge, multidisciplinary HNC teams can provide these patients with the appropriate care they need.

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