This manuscript was accepted for publication in *Otolaryngology–Head and Neck Surgery.*

Navigating the Ethics of COVID-19 in Otolaryngology

Andrew G. Shuman, MD FACS[1,2]

[1] Center for Bioethics and Social Sciences in Medicine, University of Michigan Medical School

[2] Department of Otolaryngology - Head & Neck Surgery, University of Michigan Medical School

Contact Information:
Andrew G. Shuman, MD FACS
1904 Taubman Center
1500 E Medical Center Drive
Ann Arbor MI 48109-5312
Office: 734 232 0120 Cell: 734 834 6930
shumana@med.umich.edu

The author declares no conflict of interest or funding sources. The contents of this original manuscript have not been presented or submitted elsewhere.

Conceived, drafted, edited and approved final manuscript, and takes full responsibility for its content

ACCEPTED

This manuscript was accepted for publication in *Otolaryngology–Head and Neck Surgery.*

24 **Abstract**

25 The COVID-19 pandemic has dramatically altered how otolaryngologists contemplate and
26 assume their roles in health care delivery. The ethical implications of this pandemic upon our
27 practice are formidable, and distinct from other surgical fields. The salient ethical issues of
28 public health stewardship and safety, distributive justice and non-abandonment are distilled for
29 the practicing otolaryngologist.

30

ACCEPTED

31 The COVID-19 pandemic has undermined every aspect of medical care virtually
32 overnight.[1] Early publications underscore the overwhelming acuity and volume of patients who
33 will require treatment, and how this will strain systems with insufficient resources to absorb
34 these incremental needs.[2,3] Issues related to resource utilization, exposure risk, and unique
35 implications of the procedures we perform have essentially overridden many basic elements of
36 what otolaryngologists have taken for granted in daily practice. The safety precautions and other
37 downstream effects on our specialty have been well described, and undoubtedly will be further
38 explored in the emerging literature as our collective experience matures.[4] Herein, the ethical
39 morass that COVID-19 creates will be examined for those grappling with its daily reality.

40 In general, tenets of medical ethics for practicing otolaryngologists have focused on the
41 primacy of choices and actions involving individual patients and the singular doctor-patient
42 relationship. These patient-centered principles significantly differ from concepts of public health
43 ethics, which are by necessity population-, rather than individual- driven.[5] The overwhelming
44 epidemiological need to "flatten the curve" and limit the spread of COVID-19 across
45 communities requires steps that would otherwise not be taken due to risk of harm to or
46 disenfranchisement of individuals. For example, in the current pandemic, any otolaryngologic
47 evaluation or treatment that risks aerosolizing virions must be limited, modified, or ideally
48 delayed.[6] Likewise, while individual rationing decisions rarely play a role in day-to-day care
49 provided by otolaryngologists, concern for available medical supplies, personal protective
50 equipment (PPE), and hospital beds requires us to allocate in a way that is uncommon in the
51 developed world. As a result, many otolaryngologists are facing the prospect of anxiously
52 waiting until they can resume any semblance of their daily routine.

ACCEPTED

ACCEPTED

53 The concept of delaying or refusing medically necessary care is anathema to dedicated
54 clinicians. We pride ourselves on assuming supererogatory responsibilities in times of crisis.[7]
55 But the COVID-19 era has created a situation in which expedited and evidence-based care, even
56 for urgent conditions such as airway stenosis and head and neck cancer, may be all but
57 impossible. While part of this relates to resource allocation, it also involves protection of our
58 patients. Clinical exposure that may increase iatrogenic contraction of the virus is even more
59 concerning when realizing that high risk patients are even more vulnerable to poorer outcomes.[8]
60 Likewise, head and neck cancer treatment will not only potentially expose patients, but treatment
61 effects may also make them frailer and more vulnerable, even though delaying cancer treatment
62 carries its own risks. These dilemmas create impossible choices and tradeoffs.

63 Our inability to optimally perform our work is not an excuse to remain idle. Patients in
64 need and those scheduled for upcoming procedures and appointments can and should be
65 contacted remotely in order to provide guidance and surveillance. We can convey a great deal of
66 reassurance and support without face-to-face interactions. In addition, we have an obligation to
67 provide care and avoid perceived or real senses of abandonment on the part of our patients, and
68 thus triage urgent/emergent situations to limited available resources is still needed. In addition,
69 depending upon workforce constraints, otolaryngologists may be asked to assume other roles in
70 healthcare delivery during the pandemic, from contributing ambulatory surgical
71 ventilators/supplies, to working in other clinical units, to donating blood. Alacrity to help in
72 unconventional means has historically been a strength of our profession, and the time is nigh to
73 meet it head-on.

74 Another aspect of compassionate care provision involves addressing the psychosocial
75 well-being of our patients, both for those who have COVID-19 and those who do not. Clinicians

76 will need to validate these concerns, and shepherd local and national resources that may be
77 helpful, even if we feel unequipped to provide sufficient support ourselves.[9] The emotional
78 burden and toll upon us as clinicians is similarly taxing; these extraordinary situations invariably
79 engender intense moral distress. Clinician wellness and self-care and paying heed to signs of
80 burnout and compassion fatigue are critical components of remaining sufficiently resilient to
81 continue our necessary work in extraordinary circumstances.[10]

82 COVID-19 will test the very fabric of healthcare delivery, and require otolaryngologists
83 to exercise moral and professional fortitude in ways previously unimaginable. This involves a
84 deliberate and careful balance of limiting exposures and maximizing benefit, while still
85 upholding our intrinsic ethos to serve our patients in need.

ACCEPTED

86 **References**

87

[1] Parodi SM, Liu VX. From Containment to Mitigation of COVID-19 in the US. JAMA 2020.

[2] Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. The Lancet 2020.

[3] Kucharski AJ, Russell TW, Diamond C, et al. Early dynamics of transmission and control of COVID-19: a mathematical modelling study. The Lancet Infectious Diseases 2020.

[4] Givi B, Schiff BA, Chinn SB et al. Safety recommendations for evaluation and surgery of the head and neck during the COVID19 pandemic. JAMA Otolaryngol Head Neck Surg 2020 (In press).

[5] Lee LM, Spector-Bagdady K, Sakhuja M. Essential Cases in the Development of Public Health Ethics. In: H. Barrett D, W. Ortmann L, Dawson A, Saenz C, Reis A, Bolan G, editors. Public Health Ethics: Cases Spanning the Globe [Internet]. Cham (CH): Springer; 2016. Chapter 2. 2016 Apr 13.

[6] Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 in Healthcare Settings. 2020. at https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html.)

[7] Vercler CJ. Surgical ethics: surgical virtue and more. Narrat Inq Bioeth. 2015;5(1):45-51.

[8] Liang W, Guan W, Chen R, et al. Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China. The Lancet Oncology 2020;21:335-7.

[9] Manage Anxiety & Stress 2020. at https://www.cdc.gov/coronavirus/2019-ncov/prepare/managing-stress-anxiety.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fabout%2Fcoping.html.)

[10] Emergency Responders: Tips for taking care of yourself. 2020. (Accessed 3/17/2020, 2020, at https://emergency.cdc.gov/coping/responders.asp.)

ACCEPTED