Guidelines for Resident Participation in Otolaryngology Telehealth Clinics during the COVID-19 Pandemic.

Michal J. Plocienniczak, M.D. M.S. a,b, J. Pieter Noordzij, M.D. a,b, Gregory Grillone, M.D. a,b
Michael Platt, M.D. M.Sc. a,b Christopher Brook, M.D. a,b

a: Boston University School of Medicine, Boston, MA, United States
b: Department of Otolaryngology - Head and Neck Surgery, Boston Medical Center, Boston, MA, United States

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Author Contributions:
Michal J. Plocienniczak M.D. M.S.: Idea, Contributions, Drafting, Editing, Final Approval
J. Pieter Noordzij, M.D.: Contributions, Drafting, Editing, Final Approval
Gregory Grillone M.D.: Contributions, Drafting, Editing, Final Approval
Michael Platt, M.D. M.Sc.: Contributions, Drafting, Editing, Final Approval
Christopher Brook, M.D.: Contributions, Drafting, Editing

Corresponding Author:
J. Pieter Noordzij, M.D. Department of Otolaryngology - Head & Neck Surgery, Boston Medical Center, 830 Harrison Ave Suite #1400, Boston, MA 02118.
E-Mail: JacobPieter.Noordzij@bmc.org Phone: (617) 638 8124

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Abstract:
The practice of otolaryngology has changed drastically since the start of the COVID-19 pandemic. To limit exposure and maintain a reserve of caregivers, residency education ceased most clinical activities and shifted to remote lecture consortiums hosted online across the country in lieu of ambulatory and operative experiences. Many practicing university otolaryngologists have transitioned their clinics to telehealth medicine to maintain access to clinical care during the pandemic. The participation of residents in telemedicine visits has not been described. Here we present guidelines and experienced-based suggestions for successful resident involvement in telemedicine. While it is unclear what role telehealth medicine may play within the field of otolaryngology beyond the pandemic, our experiences suggest better patient outreach and access. Expanding residents’ skillset with telehealth medicine can enhance their education and better prepare them for future practice.

Discussion:
At the time of this writing, the COVID-19 pandemic continues to impact the way otolaryngologists practice in a significant matter. Furthermore, the ability for otolaryngology residents to train has been similarly affected. A publication from Stanford University highlights the risks that otolaryngologists face through upper airway manipulation and mucosal disruption. As a result, residency education has drastically changed. Across the nation, otolaryngology residents may not be involved in outpatient clinics, or assist in elective procedures that they typically would be. On call, consults that previously would have been managed by residents first, are now routinely discussed with faculty prior to seeing the patient, all in an effort to limit exposure and conserve manpower and personal protective equipment. As a result, to promote
resident education, at least three national consortia have been set up in an effort to continue
otolaryngology resident education remotely in the setting of reduced clinical experience. ²⁻⁴
Meanwhile, practicing otolaryngologists have embraced alternative and contactless methods to
keep up with their patients. There has been a shift in clinical practice into telehealth medicine
whenever possible. ⁵ With a portion of otolaryngology clinics running virtually, a new avenue for
potential resident involvement and education has emerged.

Through trial and error, a method of incorporating resident participation in outpatient
telemedicine clinics was conceived at our institution in a manner that enhances efficiency while
providing education. Figure 1 incorporates the basic structure for effective resident engagement
in an outpatient telemedicine clinic. Figures 2 and 3 provide an outline for maximal efficiency
from the perspective of the resident and the attending. Depending on the available technology,
the tips and instructions for both phone interactions and video conference are provided for
optimal flow and engagement.

The virtual clinic described in Figures 2 and 3 utilize social distancing recommendations with
attendings and resident in separate locations. Future adjustments can be made for seamless
patient presentations and visit wrap-ups once social distancing limitations are eased.

In practice, both residents and attendings have found this to be an effective educational
experience for residents while improving clinic efficiency. Residents are able to continue
evolving their clinical acumen by taking clinical histories, reviewing differential diagnoses, and
discussing plans with attending physicians.
Medicine has turned to virtual telehealth visits to continue providing outpatient care during a pandemic. Whether telehealth medicine will remain common place in the practice of otolaryngology beyond the pandemic remains unknown. Access to care is one facet of care which telehealth medicine can improve. Because patients remain at home, the amount of “no-shows” to our virtual appointments has declined precipitously compared to traditional clinic appointments. Our clinic data, in an urban safety-net hospital, has demonstrated an average 19% no-show rate prior to the COVID pandemic. In the last two months, at the height of the pandemic, the rate of no-shows to our telehealth clinics has averaged 9%, indicating a 53% decrease in the rate of no-shows compared to that of traditional clinics (chi-squared test p<0.001). A case study prior to the pandemic evaluating telehealth visits at the Children’s Hospital & Medical Center in Omaha, Nebraska identified a comparable reduction in follow-up no-show rates by 50%. Even in a limited role, telehealth medicine has the potential to reach patients to provide routine otolaryngologic care without need for travel. By involving residents in telehealth medicine, they will not only continue to learn about clinical otolaryngology, but also acquire a set of skills to deliver virtual otolaryngologic care in the future.

Conclusion: Resident education is evolving rapidly in the environment of limited face to face contact during the COVID-19 pandemic. Telemedicine is playing a major role in the continuation of elective outpatient care while traditional office visits are limited at most training programs. Resident education can be integrated into telephone and video telemedicine visits without compromising the efficiency of attending physician’s workflow.
References:


Figure Legend:

1. Recommendations prior to virtual clinics.

2. Virtual Clinic Steps for Success: A Resident Physician’s Perspective.

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<tr>
<th>Location Requirements:</th>
<th>Attending physicians and residents should be in separate locations for social distancing. While both can participate from either clinic or home, residents should dress professionally with white coats.</th>
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<tr>
<td>Device Requirements:</td>
<td>Attending: Two devices capable of making video conference calls and electronic medical record access as well as a cell phone.</td>
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<td>Resident: Same.</td>
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<td>Tips:</td>
<td>Pre-clinic huddle: the attending and resident should discuss the plan for the clinic: 1) communication method 2) identify patients who the resident can contact directly and 3) identify patients who may require more time and therefore plan accordingly.</td>
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Call patient directly either from 1) Cell phone using *67 to block caller ID, or 2) HIPAA compliant cell phone app (e.g. Doximity Dialer) to ensure clinic line comes up as caller ID.

Obtain Consent: determine whether patient is amenable to 1) The resident obtaining the history with the stipulation that the attending will join the conversation and 2) Determine whether the patient would like to continue via phone or video conference.

If the patient selects phone:
- Continue phone interview.
- At the conclusion, place patient on hold.
- Text message or communicate with the attending: “ready to present.”
- Video conference with the attending and discuss patient, assessment, plan, etc…
- Return to patient call and thank patient for their patience and let them know attending will join call now.
- Call and add the attending to the conversation via three-way phone.
- *As the attending discusses the plan with the patient and offers to answer questions, the resident can place orders and complete the documentation.
- At the conclusion, the patient can disconnect and the attending and resident can debrief. Questions can be addressed and the attending can determine which patient the resident can contact next.
- Complete the documentation and contact the next patient.

If the patient selects video conference:
- Provide patient with instructions on how to join a secure video conference app.
- Do not hang up until they have entered your video conference.
- Continue interview over video conference. At the conclusion, place the patient on hold.
- Text message or communicate to the attending: “ready to present.”
- Contact the attending and present to the attending.
- Attending should then enter your video conference.
- Continue and conclude as above.*
- Continue seeing telemedicine patients, alternating visits with the resident.
- Anticipate a text message from the resident when they are ready to present. *Respond as soon as you can to update your ETA to the “visit”.* When you are able to talk:
  - If resident is on the phone with the patient, the attending can plan to video chat to discuss with the resident the assessment and plan.
  - If the resident is on video chat with the patient, the attending can plan to talk via phone to discuss the assessment and plan.
  - Once the plan is determined, the resident will either call the attending to merge the call to their visit if being conducted by phone, or the attending can plan to join their video conference.
  - The attending can complete the visit and offer to answer any remaining questions.
  - The resident can place orders and complete the note.
  - At the conclusion of the meeting and once the patient signs off or hangs up, the attending may debrief the interaction with the resident and also use this time to determine who contacts the next patient based on clinic-flow.
- If timing permits, attendings can elect to “observe” a patient encounter with a resident for feedback purposes. The attending can contact the patient, and if the patient is amenable to it, have the resident join the meeting via phone or video conference and continue the interview.