Back to the future: Principles on resuming outpatient services in the COVID-19 era

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Abstract

The rapidly changing healthcare climate related to coronavirus disease 2019 (COVID-19) has resulted in numerous changes to healthcare systems, and in practices that protect both the public and the workers who serve in hospitals around the country. As a result, these past few months have seen a drastic reduction in outpatient visits. With phased reopening and appropriate guidance, healthcare systems are attempting to return to normal. The experiences and lessons learned are described, and we provide guiding principles to allow for a safe and effective return to outpatient care.
Introduction
The changing healthcare climate related to coronavirus disease 2019 (COVID-19) has resulted in rapid modifications to healthcare systems, and to practices to protect both the public and the workers who serve in hospitals and clinics around the country. In these last few months, many surgical cases have been postponed, and many clinics transitioned to a mixture of limited in-person visits and telemedicine. With the COVID-19 pandemic curve beginning to flatten, many states have begun to look to the future and develop reopening plans. Illinois has created a five phased plan for safely reopening businesses throughout the state\textsuperscript{1}. As of May 1, 2020, Illinois has entered phase 2. This phase maintained the stay-at-home order but loosened the criteria for elective healthcare visits. As a free-standing children’s hospital in the heart of downtown Chicago, we have had the opportunity to begin to ramp up our ambulatory operations to full capacity. Looking to the future safe return to “normal” at our institution has posed many challenges. Our experiences and key principles that have allowed for a safe and effective return to outpatient care are described.

Experience
To manage the expected increased work volume, our division created care team models based on otolaryngology subspecialty lines of care: airway, head and neck, otology, and general/sinus. These care teams included nurses, nurse practitioners, physician assistants, medical assistants, surgical schedulers, and administrative staff. This allowed for a cohesive delegation of care. Each staff member participating in patient care worked at the upper scope of their practice to achieve our goals. For example, the advanced practice providers (APP) and nursing staff combed through the cancelled and upcoming clinic lists. Each of family was contacted and
questioned to determine interest in keeping or rescheduling ambulatory visits. This freed up the
appointment schedulers to focus on new patient visits. Our APP team also was able to determine
if some patients could follow up via telemedicine. This allowed our practice to adapt and
continue to provide care in this time, working as a true team-based model.

The ramp up to seeing patients in the ambulatory setting included efforts to maintain social
distancing, incorporate telemedicine, establish protocols for scope procedures incorporating
appropriate personal protective equipment (PPE), and screening patients before their visit. To
accomplish this, each patient was contacted within 2 days of their scheduled appointment and
screened for COVID-19. This provided a point of contact with the family to confirm their
interest in maintaining their appointment. Double booked appointments slots were changed to
single booking, and telemedicine slots were incorporated into some clinic sessions. These
measures provided opportunities for families to maintain social distancing guidelines in the
waiting rooms.

Many otolaryngology procedures have been deemed higher risk for viral transmission due to
their risk of aerosol generation (AGP). The nasal cavity and nasopharynx have been shown to
contain higher viral concentrations of the coronavirus\(^2\), thus placing an increased risk of disease
transmission to those involved in these procedures. Flexible laryngoscopy qualifies as an AGP
and is routinely performed during otolaryngology visits. Based on air flow turnover times
established for viral dissipation after performing an AGP, exam rooms needed to be closed down
for up to 2 hours after the procedure. This room shut down could create a significant bottleneck
in a clinic session. To help reduce the burden, HEPA filters were utilized, which allowed for a decrease in room turnover time to 15 minutes.

Working within the established care-team model, team members were able to review clinic schedules to determine the likelihood of performing an AGP on each patient. Schedules were then readjusted accordingly to allow for exam room turnover adjustments. Subspecialty clinics with suspected higher volume of AGP’s, such as voice and aerodigestive clinics, have modifications their schedules keeping the AGP volumes in mind. Alternatives to performing an AGP are being considered, including adenoid/airway films to assess nasal obstruction or suspected adenoid hypertrophy, or the incorporation of drug induced sleep endoscopy for some surgical candidates. Additionally, consideration of performing COVID-19 testing on any patient identified to likely require an AGP several days prior to clinic may become a viable option in the near future.

**Conclusion**

The COVID-19 outbreak has had tremendous impact on healthcare, particularly ambulatory patient volumes. Developing a refined care-team model, prescreening patients to determine if procedures will be necessary, and providing social distancing, are all going to allow for a successful return to outpatient care. Creativity and innovation will help clinicians navigate the ramp up of their practices to pre-COVID-19 levels, while continuing to provide safe and appropriate medical care. If we are to continue to provide the level of care we are accustomed to, we must break barriers never known.
References
