

Study of the Ear and its Diseases in Pediatric Patients in the COVID-19 Era

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ABSTRACT:

Families typically put off receiving necessary care because they are reluctant to leave their isolation areas. Hospitals across the nation have implemented numerous system-based initiatives that have lowered risks and enhanced the patient experience. Providers in the field of otolaryngology are particularly susceptible to upper respiratory pathogens due to a specific combination of factors. The particular characteristics of caring for children, such as the high prevalence of upper respiratory tract infections, asymptomatic carriage, and uncooperative patients during regular examinations, may enhance the provider's risk of exposure to COVID. Due to the elective nature of pediatric otolaryngology practices and delays in receiving government financial assistance available to Medicare but not Medicaid providers, pediatric otolaryngology practices have been disproportionately impacted by the financial ramifications from COVID.

Keywords: COVID-19, Pediatric otolaryngology, Pediatric ear, Nose and throat.

INTRODUCTION:

Although adult first responders and critical care providers have received the majority of coverage for the health effects of coronavirus disease-19 (COVID-19), the pandemic has had a significant impact on the entire health care sector, including the pediatric otolaryngology community. The daily practice of pediatric otolaryngology has been drastically transformed as a result of resource shortages and social segregation policies, necessitating quick adaptation to protect the wellbeing and financial viability of practitioners and their practices. As a result of these adjustments, telemedicine was created, complex protective protocols were put in place to allow for only limited exposure to potential aerosol-generating procedures (AGP) or manipulations, and a national debate about how to return to "normal" practice after the pandemic's peak was held. This article's goal is to emphasize the particular effects

COVID-19 has on pediatric otolaryngology, with a particular emphasis on the short- and long-term prospective changes in clinical practice.

CARE FOR THE PATIENT:

Care for the patient in need gets more complicated as COVID-19 prevalence rises across the United States. Families typically put off receiving necessary care because they are reluctant to leave their enclosed spaces. In addition to delaying medical and surgical care, this practice might also postpone developmental milestones. Appropriate medical care is a crucial part of keeping a child intellectually and physically healthy in the age of remote learning. A youngster who has untreated chronic otitis media may experience further delays in speech. A youngster with persistent infections might not receive the proper care and struggle to reach their full potential. Therefore, it's critical that healthcare professionals give patients with crucial pediatric otolaryngology skills while also working to prevent kids from getting COVID-19.

Hospitals across the nation have implemented numerous system-based initiatives that have lowered risks and enhanced the patient experience. Because each system is distinct, each system-specific technique has been used. Screening patients in advance of a visit to determine their medical needs and to ensure the safety of both them and other patients is the general idea behind a better and safer patient experience.

As a supplement to in-person consultations, telemedicine can help commence medical care and carefully map out a subsequent treatment plan. Once telemedicine has begun, the choice of continuing remotely or continuing with in-person visits can be made because the number of examinations that can be performed in a distant location is constrained.

Screening processes aim to reduce the hazards to patients and practitioners for those coming to the office or operation room, if in-person visits are required. Almost all pediatric otolaryngology clinics routinely check symptomatology and temperature. Before office-based AGP procedures or any operational surgical treatment, many screen and objectively test (by polymerase chain reaction) to ensure a COVID-negative patient (within the error of the test). Unless it is deemed an emergency and cannot be avoided, any screening or objective test that is positive usually needs to be rescheduled. This procedure enables risk mitigation and patient and practitioner protection in the office and operating room.

Other initiatives, such reducing clinic traffic, fostering social isolation in the waiting areas, and allowing enough time for air circulation to sufficiently clear the exam rooms of any potential contamination, aid in keeping the office environment less vulnerable to cross-infection.

CARE FOR THE PRACTITIONER AND THE HEALTH CARE TEAM:

Otolaryngology has a special combination of characteristics by its very nature that render practitioners more susceptible to upper respiratory diseases. We are "ear, nose, and throat" specialists after all, and we spend the majority of each workday right in front of our patients. There is currently a wealth of evidence that points to AGPs as a risk factor for exposure to an infection with a high viral burden, placing otolaryngologists at a high risk of getting sick. It is essential to respond right away to reduce risk to providers because to the special dangers of close patient contact with AGPs. This has resulted in the growing use of telemedicine for patient evaluation in the pediatric otolaryngology field as well as the creation of complex methods to reduce exposure risk to AGPs.

These adjustments have proven to be particularly difficult because of a number of distinctive aspects of pediatric otolaryngology practice. First off, children are predisposed to viral upper respiratory tract infections and their complications. Although it is simple to establish criteria to exclude adult patients with respiratory tract infection symptoms, this is unrealistic for children because it is frequently the reason they require medical attention. Even if it were feasible, we know that COVID testing has a false-negative rate of at least 3% to 5% in the best case scenarios, making it unfeasible to obtain COVID testing for every patient with a runny nose who needs to be seen in the office. [1,2] Additionally, according to the latest scientific research, kids may be asymptomatic carriers of COVID, which means that screening kids for sickness wouldn't assist to reduce any potential risk to providers.

In addition, children are frequently unwilling participants in the examination process, which is another distinctive aspect of pediatric otolaryngology practice. This poses a further risk to healthcare professionals because even a routine check of the mouth or nose might result in an AGP in a screaming, gagging, coughing, or spitting youngster. The examination method frequently necessitates intimate contact with both the kid and their caregiver, thus complicating the situation and posing a risk of exposure to the caregiver.

The hazards of COVID exposure have prompted the rapid development of telemedicine and safety precautions when direct physical contact with patients is required, as was previously mentioned in this article. Despite the fact that telemedicine has largely developed into an excellent immediate solution for patient access [3], it is significantly constrained by the same difficulties that practitioners encounter during an in-person office visit; the child is frequently not a willing participant and if they refuse to open their mouth, there is only so much that can be evaluated virtually. Additionally, since otologic complaints make up a large portion of pediatric otolaryngology practice, there is currently no generally accessible substitute for the in-person otologic examination. The majority of institutions have devised protocols that include screening with or without COVID testing, social distancing measures, and cleaning methods to minimize the danger of exposure to healthcare personnel, even though this

process is still in its early stages. The examination of these measures in further detail is outside the scope of this article and is covered elsewhere. [4,5]

It is becoming clear that what we initially thought would be temporary changes to practice are probably here to stay for the foreseeable future. Therefore, even after the acute crisis, it is highly likely that pediatric otolaryngology will permanently adopt a mix of online and in-person sessions. In this uncertain time, the hybrid approach does provide a number of benefits to both the patient and the practitioner. Despite their apprehension, its widespread use enables families to access initial medical attention and treatment. Despite opposition, it enables a patient-doctor relationship to grow. It facilitates the practitioner's ability to prioritize and streamline the management of patients with more critical problems. Its current drawbacks are its length and its limited capacity to elicit a high-quality evaluation of the patient. Positively, as we develop technology to get over telemedicine's examination restrictions, this might become a popular alternative for many patients (and medical professionals) since it will drastically cut down on the time and expense associated with the visit.

CARE FOR THE PRACTICE:

The otolaryngology community has not escaped the global economic downturn, which has affected everyone. Instead of doing what is immediately necessary to preserve life, much of what we do is to control quality of life. This feature stands out even more in general pediatric otolaryngology practice, where difficult, life-threatening, and/or cancer diagnoses account for a small minority of patients, and when the main focus of treatment is on enhancing patient comfort (ear infections), hearing (ear fluid), or sleep (adenotonsillar hypertrophy). The abrupt cessation of office-based visits and elective surgical practice during the acute period of the COVID pandemic effectively stopped the revenue flow to otolaryngology practices that primarily treat children. For a number of reasons, including improved safety procedures, parental anxiety about bringing their child to the doctor, and lost family money and/or insurance, volumes will be much lower for the foreseeable future even as we reintegrate into the clinics and the operation room.

Along with having much less revenue, pediatric surgical practices in the US have largely lagged behind their adult counterparts in receiving government financial relief that is only available to Medicare providers—not Medicaid providers. To make matters worse, most pediatric otolaryngologists work in hospital settings, making it difficult for them to qualify for the small business loans available to other specialists who have private practices. The overall impact of these financial limits has resulted in significantly lower personal incomes for physicians, the necessity of cutting costs by delaying hiring new staff and/or furloughing current ones, and a decrease in expenditures for non-essential operations (meetings, dues, etc).

CONCLUSION:

In conclusion, although the post-COVID framework of pediatric otolaryngology practice is not yet defined, it is quite likely that the new reality will include telemedicine, improved safety measures, new indications for direct patient contact, and decreased patient numbers. Finally, the economic repercussions of COVID may cause a sustained decline in general pediatric otolaryngology practice across the country.

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