Overcoming Additional Barriers to Care for Deaf and Hard of Hearing Patients During COVID-19

The arrival of the novel coronavirus disease 2019 (COVID-19) to the United States in early 2020 disrupted traditional clinical services and care. Health care institutions largely focused on managing the surge of COVID-19 patients while minimizing the risk of exposure and spread to those without the virus. To protect clinicians and patients, institutions mandated personal protective equipment for everyone, implemented visitation restrictions that bar visitors from assisting their loved ones in medical settings, and eliminated in-person medical interpreters. These safeguards jeopardize the ability of the 17% of all US adults with a hearing loss to effectively communicate with their clinicians, thus impeding their quality of care.

Key publications highlight significant communication barriers for deaf and hard of hearing (DHH) patients in normal times. This results in a cascade of negative health and health care outcomes—higher readmission rates, increased medical costs, and lower treatment adherence. Age is a strong risk factor for both hearing loss and morbidity and mortality from COVID-19. The dramatic shift in health care norms places these individuals at a great disadvantage for being able to communicate and receive appropriate care. Hospitals and designated clinics set up to manage COVID-19-positive patients have restrictions making it hard for DHH patients to communicate (eg, face masks), usually with little or no proposed solutions. These safety procedures do protect patients and health care workers but interfere with accessible and effective communication for DHH patients as required by the Americans with Disabilities Act. We believe this can be addressed to the satisfaction of all. Following, we cite several feasible and already used steps to mitigate this new communication barrier between DHH patients and health care workers.

Clear Face Masks
These allow DHH patients or family members to lip-read the health care worker. These masks are not approved for COVID-19 inpatient services, where there is a high likelihood of aerosolization. Clear masks can not only improve communication but may alleviate some of the anxieties that seeing health care workers wearing personal protective equipment may generate. Safe’n’Clear is the only FDA approved version for medical use, but others should soon arrive to the market. Until a clear mask is approved for COVID-19 inpatient services, a powered, air-purifying respirator is one option that could enable patients to see the speaker’s lips.

Interpreters
In-person sign language interpreters are being switched to remote interpreting roles during the COVID-19 pandemic to conserve personal protective equipment and reduce their risk. Remote interpreting can be supplied by existing hospital staff interpreters, contracted community-based medical interpreters, or video remote interpreting agencies. Many hospitals have videoconferencing equipment available for hearing patients with limited English proficiency, which can easily be adapted for sign language users. In rare circumstances, interpreters could receive personal protective equipment training to allow them to conduct in-person interpreting when required (eg, a deaf-blind patient needing tactile signing). If appropriate, remote interpreters can be connected virtually through several videoconference-based platforms that are compliant with the Health Insurance Portability and Accountability Act (HIPAA). They can join through tablets or laptops secured on mobile units or carts to facilitate communication between DHH patients and clinicians. Medical interpreters should be certified and receive training to interpret in medical care settings.

Captioning Apps
Smartphones can access numerous automated captioning apps. These provide another in-person communication tool and be used either on the patients’ personal or institution’s devices. These apps involve speaking slowly and clearly into the devices’ microphone so that the voice can be transcribed for the listener. Apps with computer-generated speech have higher rates of errors with background noises or accents. Thus, it is important to speak slowly and distinctly and at a comfortable volume to allow for better transcription. There are also live-streaming operators who listen remotely and type what is said; these are more accurate but also more expensive. Fortunately, Automatic Speech Recognition (ASR) platforms, incorporating machine learning, is improving rapidly and will soon offer a suitable alternative for personal transcription needs. Some existing ASR platforms include Google Live Transcribe, Otter.ai, and Interact Streamer.

Virtual Visits
Virtual care takes place through videoconferencing-based platforms, some that are not compliant with HIPAA. Videoconference platforms (eg, Zoom) allow a third-party to provide closed captioning; currently Google Hangout Meet is the only known videoconference platform that has available live captions. HIPAA-compliant video visits are often connected with patient portals to assist with easy access to informa-
tion in the medical record. Many approved virtual care platforms do not support 3-way video visits, a requirement for a third party (eg, interpreter) to facilitate communication between a clinician and a patient. Large companies such as AmWell and Virtual Health do support 3-way video visits enabling the inclusion of interpreters (sign or oral) or remote real-time translation services. If a 3-way video visit cannot be set up, clinicians should arrange back-up plans to ensure effective communication. This may require using BlueJeans or Zoom videoconference platforms, or a telephone encounter where DHH patients can use any of their preferred telecommunication relay service options.

Telecommunication relay services provide a relay service operator, who signs or types out conversations, allowing DHH individuals to communicate with people using a standard telephone. An example is a text telephone or video relay service where a relay operator or interpreter voices the typed or signed conversation to a hearing person, and then types or signs the hearing person’s spoken response back to the DHH individual. Other popular options are captioned telephone services or InnoCaption + app in which a relay operator transcribes the called party’s responses into text on the phone.

**Signage**

Using signage to inform clinicians and staff can be very helpful, especially if the patient is sleeping, unresponsive, or intubated. These signs can be printed with hearing loss icons or text and posted in highly visible areas in the patient rooms (eg, over bed or patient room door). They help reduce assumptions that the patient is able to hear and communicate effectively and encourage the arrangements of necessary accommodations.

**Communication Boards**

These communication tools permit quick communication between clinicians and staff when other accommodations are unable to be arranged. Also, these tools may assist late-deafened DHH patients who may struggle with other forms of accommodations. Because many patients with COVID-19 infection receive ventilation, these tools could facilitate basic forms of communication when other modes of communication may be affected.

Deaf and hard of hearing patients already struggled with communication in the pre–COVID-19 world. Now, with additional barriers added, we must not forget the basis of good patient care and patient satisfaction—effective clinician-patient communication. The disruption of existing communication paradigms allows us to creatively use personal and remote technology to maximize communication accessibility. With the quick expansion of virtual care or telemedicine during this COVID-19 pandemic, we must ensure that patient safety, comprehension, and access to quality health care are maintained for many DHH patients. Last, but most important, we should ask DHH patients what communication strategies work best for them. Their hearing loss severity, language and communication preferences, and existing physical, mental, and cognitive limitations may vary. Additional resources, including suggested accommodations, signage, and tools for hospitals and health care providers can be viewed at the COVID-19 web pages of the National Association of the Deaf, the Association of Medical Professionals with Hearing Losses, and the Hearing Loss Association of America.

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**ARTICLE INFORMATION**

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**REFERENCES**


