

Tips and Techniques For Accommodating Hearing Loss

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Disclosures

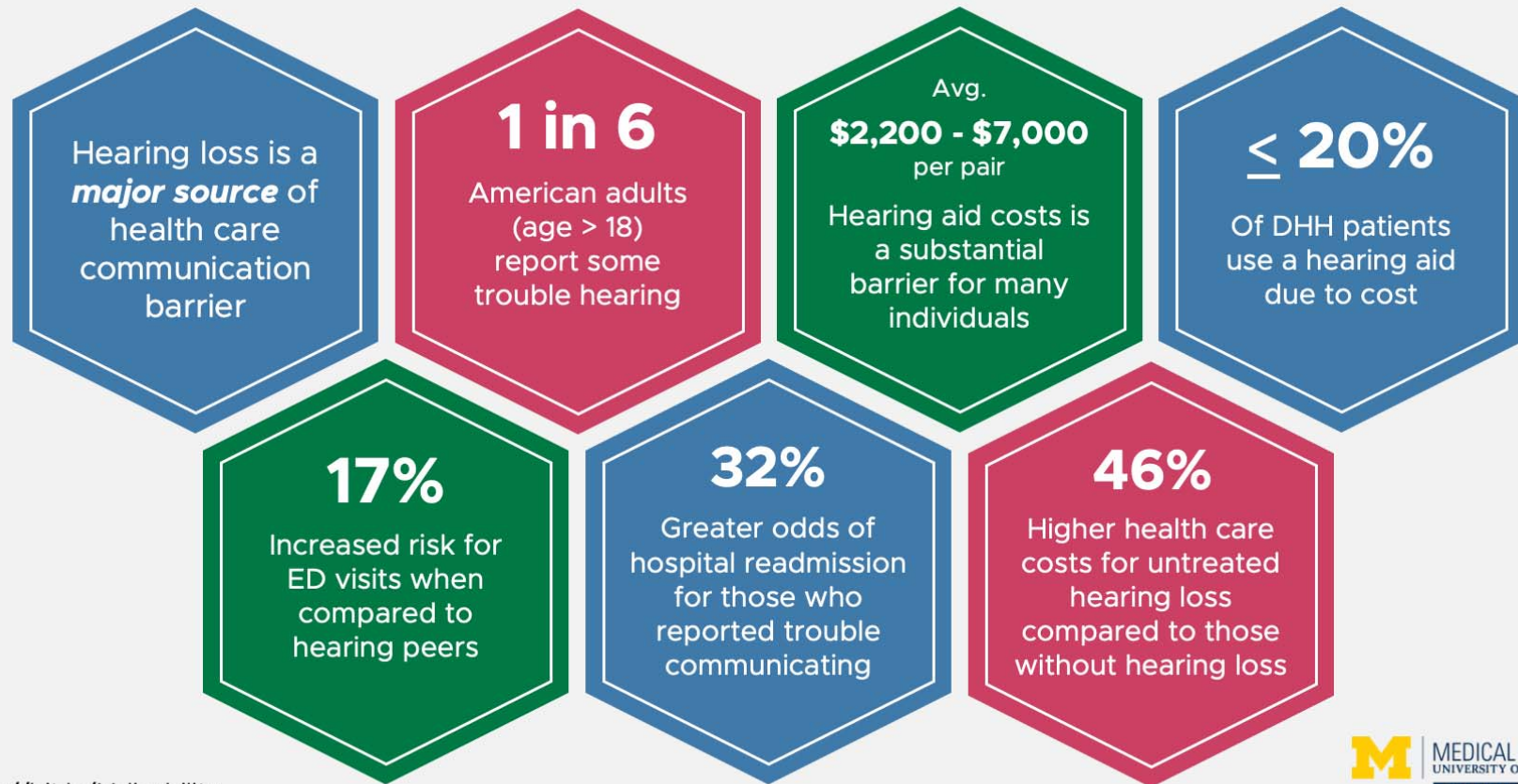
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No other financial or conflict of interest

Agenda

- Review how hearing loss affects health care access and use
- Identify techniques for in-person and telephonic communication with deaf or hard-of-hearing (DHH) individual
- Educate DHH individuals and clinicians about how to communicate effectively
- Provide tools and resources for DHH individuals
- Explore new technology for hearing loss

Hearing Loss and the Impact on Health Care



<http://bit.ly/Mdisability>

Source: Hearing Loss Association of America, "Hearing Loss Facts & Statistics"
(http://www.hearingloss.org/sites/default/files/docs/HearingLoss_Facts_Statistics.pdf)

Why focus on DHH patients?

- Hearing loss impacts health in multiple ways
 - Psychological
 - Cognitive
 - Social
- Associated with many health conditions and medications

McKee et al (2018), Hearing loss and conditions. *Disabil Health J*; McKee et al. (2015) Hearing Loss: Communicating With the Patient Who Is Deaf or Hard of Hearing. *FP Essent*; Lin FR, et al (2013). Hearing loss and cognitive decline in older adults. *JAMA Intern Med.*; Fellingner et al. (2015) Mental Health of Deaf People. *Lancet*

Access to and Utilization of Health Care

Association Between Hearing Impairment and Risk of Hospitalization in Older Adults

Dane J. Genther, MD,^{ab} Joshua Betz, MS,^{bc} Sheila Pratt, PhD,^{de} Kathryn R. Martin, PhD, MPH,^{fg} Tamara B. Harris, MD, MS,^f Suzanne Satterfield, MD, DrPH,^h Douglas C. Bauer, MD,ⁱ Anne B. Newman, MD, MPH,^{jk} Eleanor M. Simonsick, PhD,^{lm} and Frank R. Lin, MD, PhD,^{abln} for the Health, Aging and Body Composition Study

Genther et al. 2015. [J Am Geriatr Soc](#)

JAMA Otolaryngology-Head & Neck Surgery | [Original Investigation](#)

Trends in Health Care Costs and Utilization Associated With Untreated Hearing Loss Over 10 Years

Nicholas S. Reed, AuD; Aylin Altan, PhD; Jennifer A. Deal, PhD; Charlotte Yeh, MD; Alexander D. Kravetz, PharmD; Margaret Wallhagen, RN, PhD; Frank R. Lin, MD, PhD

IMPORTANCE Nearly 38 million individuals in the United States have untreated hearing loss, which is associated with cognitive and functional decline. National initiatives to address hearing loss are currently under way.

OBJECTIVE To determine whether untreated hearing loss is associated with increased health care cost and utilization on the basis of data from a claims database.

← Invited Commentary
+ Author Audio
+ CME Quiz at [jamanetwork.com](#) and CME Questions page

Reed et al. 2019. [JAMA Otol](#)

JAMA Otolaryngology-Head & Neck Surgery | [Original Investigation](#)

Association Between Hearing Aid Use and Health Care Use and Cost Among Older Adults With Hearing Loss

Elham Mahmoudi, PhD; Philip Zazove, MD; Michelle Meade, PhD; Michael M. McKee, MD, MPH

IMPORTANCE Hearing loss (HL) is common among older adults and is associated with poorer health and impeded communication. Hearing aids (HAs), while helpful in addressing some of the outcomes of HL, are not covered by Medicare.

OBJECTIVE To determine whether HA use is associated with health care costs and utilization in older adults.

DESIGN, SETTING, AND PARTICIPANTS This retrospective cohort study used nationally representative 2013-2014 Medical Expenditure Panel Survey data to evaluate the use of HAs among 1336 adults aged 65 years or older with HL. An inverse propensity score weighting was applied to adjust for potential selection bias between older adults with and without HAs, all of whom reported having HL. The mean treatment outcomes of HA use on health care utilization and costs were estimated.

← Invited Commentary page 505
+ Supplemental content
+ CME Quiz at [jamanetwork.com/learn](#) and CME Questions page

Mahmoudi et al. 2018. [JAMA Otol](#)

> [J Am Geriatr Soc](#). 2018 Nov;66(11):2227-2228. doi: 10.1111/jgs.15545. Epub 2018 Oct 5.

Hospital Readmission Risk for Patients With Self-Reported Hearing Loss and Communication Trouble

Ji Eun Chang¹, Barbara Weinstein^{2,3}, Joshua Chodosh^{4,5}, Jan Blustein⁶

Affiliations + expand

PMID: 30289969 DOI: [10.1111/jgs.15545](#)

Chang et al. 2018. [J Am Geriatr Soc](#)

Strategies to facilitate communication with DHH individual

In-Person Communication

- Communication breakdowns
 - Medications misunderstandings/reduced adherence
 - Misdiagnoses/Mistrust
 - Limited health literacy
- Despite the Americans with Disabilities Act, accommodations are irregularly provided
 - Inconsistent interpreter coverage or provisions (17% reported in one survey) with most providers feeling that communication was effective
 - No reported statistics for the general DHH

McKee MM, Moreland, CJ, Atcherson SR, Zazove P. Hearing Loss: Communicating with the patient who is deaf or hard of hearing. *FP Essent*, 2015;434:24-28.
McKee, MM, Paasche-Orlow M, Winters PC, Fiscella K, Zazove P, Sen A, Pearson T. Assessing health literacy in Deaf American Sign Language users. *J Health Commun*, 2015;20(Sup2):92-100. Alexander, et al. (2012), Deafness Might Damage Your Health, *Lancet*. 2012

Universal Design and Inclusion Principles: Clinical Approaches for Patients with Hearing Loss

Provider Based Communication Strategies

- Ask patient how to achieve effective communication
 - Obtain interpreters or accommodations
- Speak clearly and at a normal pace
- Face patient, make eye contact
- Flag chart records to identify those who may need communication assistance
- Incorporate visual aids and pictographs
- Assess patient comprehension
- Use of door knock alarms or personal sound amplification products



Chart Strategies

Hyperspace - DHC FAMILY MEDICINE - PRD/ecp_p1b1 - MICHAEL M.

Test, Dawn
Preferred Name: None
Coverage: None
MRN: 100885294
DOB: 12/17/1966
Age/Sex: 52 y.o. / M

FYI: None
Allergies: **Not on File**
My Sticky Note: 📌

PCP: Phys, Self-Refer...
REF: None
Infection: None
Isolation: None
Last Wt: None
Last BMI: None

Prof Lang: None
Interpreter: None
Adv Dir: NONE

None
Due
Research: None

Patient SnapShot

Snapshot | Patient SnapShot | Open Orders | Immunizations | After Visit Summary | Patient Education | Current Medications | PT Care Timeline | More

Patient
Dawn Test
52 year old male
12/17/1966
123 test ave
tesyt MI 48184
999-999-9999 (H)

Socioeconomic History
None

Significant History/Details
Smoking: Never Assessed
Smokeless Tobacco: Unknown
Alcohol: Not on File

Specialty Comments
No comments regarding your specialty

Family History
None

Medical History
None

Preferred Pharmacies
None

Allergies
Not on File

Medications
None

Problem List
None

Labs and Results (Last 6 results in 3 years)
WBC HGB HCT PLT MCV RDW FERRITIN TRANSAT VITAMIN RETIC B12 LEVEL
03/28/19 0858 **3.0** **9.0** **27.0** 150 **101.0** 15.0 -- -- --

Reminders and Results
None

Health Maintenance



System-Based Communication Interventions

- Training a diverse health care workforce
- Establishing interpreters when needed
- Standardizing patient check in and check out processes
- Simplifying medical forms and providing assistance when needed

Staff Based Communication Interventions

- Document communication needs in EHR
- Set up communication accommodations
- Provision of easy to read handouts on check in/outs
- Use of visual aids
- Simplify check in and check out processes
- Notify patients in person when they are ready to be roomed
- Use interpreters if they are available for the medical appointment
- Use devices such as UbiDuo2 or Interprettype® (text based message system to type on)
- Provide hearing loss awareness training, including sign language classes



Ancillary Communication Interventions


- Use of telecommunications relay service
 - Video Relay Service
 - Text to Voice TTY/TDD
 - Captioned Telephone Service
- Establish telephone preferences, including the use of mobile phones and texting
- Assigned proxy (e.g. family member) as a main contact
- Use patient portals as communication tools (email based)
- Set up television in waiting rooms with closed captioning

Screening of Patients

- Screen all patients for limitations or communication barriers


BestPractice Advisories click to open

Important (1 Advisory)

 This patient is 55+ years old: please assess for Hearing Loss. See referral to Audiology Smartset below, as needed.

Acknowledge reason:

☐ Open SmartSet: Audiology referral for Hearing loss, bilateral preview

 Document Hearing loss on patient's Problem List

Zazove P, Plegue MA, Kileny PR, McKee MM, Schleicher L, Green LA, Sen A, Rapai ME, Guetterman TC, Mulhem E. Initial results of the Early Auditory Referral-Primary Care (EAR-PC) study. *Am J Prev Med.* 2017;53(4):e139-146.

Cracks Revealed

npr [DONATE NOW](#) [Play Live Radio](#)
SPECIAL SERIES **The Coronavirus Crisis**
HOURLY NEWS LISTEN LIVE PLAYLIST

New Coronavirus Safety Measures Pose Challenges For The Deaf And Hard-Of-Hearing
April 29, 2020 - 3:44 PM ET

THINK
Opinion, Analysis, Essays

Keeping people safe from COVID-19 limits deaf people's access. It doesn't have to be this way.

The things we need to stop the spread of this disease are also limiting the ability of deaf and hard-of-hearing people to fully participate in society.



THE NEW YORKER [Subscribe](#)
THE CORONAVIRUS CRISIS The Latest Treatment and Testing Economic Impact What to Do at

WHO IS "WORTHY"? DEAF-BLIND PEOPLE FEAR THAT DOCTORS WON'T SAVE THEM FROM THE CORONAVIRUS



By Robin Wright
April 28, 2020



Los Angeles Times

CALIFORNIA
Coronavirus poses added challenges for hospital patients who are deaf or hard of hearing



Virtual Care Appointments

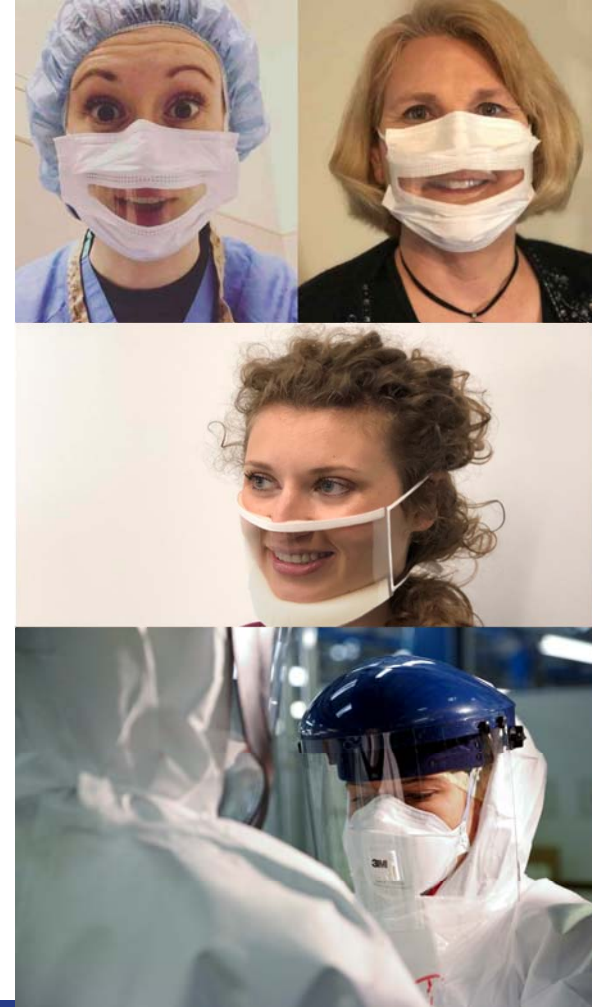
- Ensure 3 way video visits (allows for interpreters to participate) or Zoom calls for CART additions
 - Video relay service (via telephone calls) uses non-medical certified interpreters
 - Loss of video with resulting reduction in info obtained
 - Lower provider-patient engagement

Virtual Care Appointments



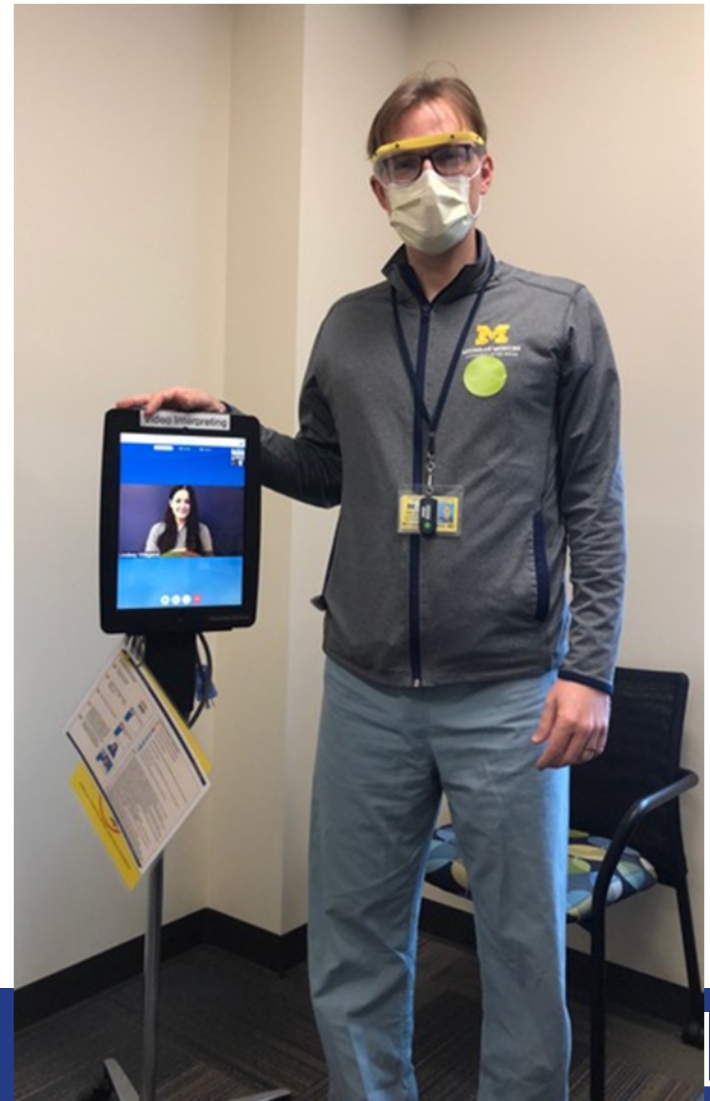
In-person patient care

- Clear masks
 - [Safe N'Clear](#)
 - [ClearMask](#)
- Aerosolized situations
 - Powered, air-purifying respirator is one option that could enable patients to see



In-person patient care (cont.)

- Communication devices
 - Mobile carts/poles with iPad for video remote interpreting and/or CART
- Deaf-blind
 - PPE for trained interpreters (limited availability)
- Writing tablets/pads
- Communication boards (e.g. boogie board)
- Signage



Personal Devices

- Smartphones/tablets
 - Captioning apps using automatic speech recognition (ASR) are increasing
 - Google Live Transcribe, Otter.ai, Ava and Interact Streamer
 - Sign language based ones are limited and fee based still- not appropriate for medical environments

Advocating and Empowering DHH Individuals and Caregivers

- Be Proactive!
 - Disclose and notify each health care team member that you have a hearing loss - DON'T BE SHY!
 - Bring your medications, prior medical records including family history
 - Set up accommodations and check prior to appointment that they are arranged
 - Notify each health care team member that you have a hearing loss
 - Communication Access Plans
https://www.hearingloss.org/wp-content/uploads/HLAA_HC_CAP_Form_and_Instructions.pdf

Assistive Devices

- Hearing aids/cochlear implants
 - Ensure in good working order and adequate batteries for health care appt and stay
- Hearing Assistive Technologies
 - Personal Sound Amplification Products
 - Cheaper but not ideal for worse hearing loss
 - Speech to text apps (e.g. AVA and Live Transcribe)
 - Ensure CC is working on your TV (important for hospital stays)



AVA app

Future Steps

- Signing Avatars
 - <https://achrafothman.net/site/virtual-conversation-agent-avatar-for-sign-language/>
- Improved accuracy with auto automatic speech recognition (ASR)
- Wearable devices with built-in tools
 - Smart glass with captioning

Remember the patient is generally the expert on what works best with communication!

Helpful Resources

1. The Joint Commission: Advancing Effective Communication, Cultural Competence, and Patient- and -Centered Care: A Roadmap for Hospitals. Oakbrook Terrace, IL: The Joint Commission, 2010.
2. McKee MM, Moreland, CJ, Atcherson SR, Zazove P. Hearing Loss: Communicating with the patient who is deaf or hard of hearing. FP Essent, 2015;434:24-28.

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- Deaf Health Clinic
<https://www.uofmhealth.org/our-locations/deaf-health>