Perspective from Department of Veterans Affairs

June 30, 2015

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Relevance of Study to VA

Initial presentation (April 27, 2015):
• Why is this study important to VA?
• What is the state of hearing health care within the VA?
• What are VA’s expectations for the study?

Today’s presentation (June 30, 2015):
• How does VA provide hearing health care?
• What innovations does VA bring to delivery of hearing health care services?
• What are barriers to improving the accessibility and affordability of hearing health care to patients?
• What are recommendations for improving accessibility and affordability of hearing health care in the U.S.?
“The only victor in war is medicine...”

Mayo Brothers

WWII

Photo Courtesy of U.S. Army

Photo Credit: Sgt. Matthew C. Cooley
Scope of the Problem

• Military operational environments can be chaotic
• The ability to hear and communicate is
  – Critical to safety (warrior and unit)
  – Central to effective command and control
  – A vital component for mission accomplishment
  – A key consideration in Workforce Management
    (attrition, retrain, replace, recruit)
• The capability to prevent is available
  – Education, Training & Surveillance
  – Hearing Protection Devices
  – Tactical Communication Devices
• Readiness requires both
  – Performance and Prevention

(* Slide courtesy of DoD Hearing Center of Excellence)
Delivery of Hearing Health Care in VA

- VA provides comprehensive hearing health care at no cost or low cost (co-payment), including audiology services not generally available through other health plans
- Access to audiology services are managed through 455 VA clinical sites of care
  - Veterans are seen by audiologists who are licensed, independent providers
  - 1,161 clinical audiologists, 344 audiology assistants
- VA uses team-based models to provide patient-centered care, and Audiology functions as member of integrated health care teams
  - Audiologists are partners with Primary Care, Otolaryngology, Neurology, Geriatrics, and other professional disciplines providing high demand services required by Veterans
  - Audiologists are part of Traumatic Brain Injury and Polytrauma teams to address auditory and balance needs for identified Veterans
  - Audiologists are integrated into low vision care to assist with training Veterans with low vision on how to utilize their hearing aids with low vision aids
  - Hearing testing is part of Veterans’ uniform medical benefits, and Veterans have direct access to audiology clinics for evaluation and treatment of hearing loss
• VA delivery model focus is access to a full continuum of hearing health care from prevention to diagnostics to treatment, continued follow up, and maintenance
  – Utilizes multiple contracts to provide high quality technology in the area of hearing aids, assistive/alerting devices, cochlear implants to provide devices needed to meet communication needs of the Veteran
  – Provides many education opportunities to help the patient obtain the best treatment outcomes; e.g., evaluation and explanation of hearing loss, counseling, assess patient’s needs, explain available strategies and technologies
  – Utilizes evidence base for delivery of best practices and services, supported by expertise at VA regional and national centers of excellence (e.g., CI centers, Research Centers)
  – Utilizes a Progressive Tinnitus Management (PTM) Program to educate and treat Veterans with significant tinnitus, one of the most prevalent service-connected disabilities
• VA partners with community providers through the patient-centered community care (PC3) and Veteran’s Choice Program to contract and offer hearing health care closer to home and in a timely manner
VA Innovations for Delivery of Hearing Health Care Services

• Historical contributions:
  – KEMAR and ANSI Standards (1970s)
  – Recorded Speech Materials (1985)
  – Development of First Digital Chip in Hearing Aid (1987)
  – Seminal Paper on Sustained Benefits of Hearing Aids with Older Adults (1992)
  – First Prospective Randomized Trial of Cochlear Implants (1993)
  – Large VA Randomized Clinical Trial on Hearing Aid Efficacy (2000) and Long Term Follow Up to the VA Randomized Clinical Trial (2007)
  – International Outcome Inventory for Hearing Aids Research (2002)

• Current innovations:
  – Audiologic test results in electronic medical record
  – National hearing repository with over 2.2 million unique Veterans (~ 4 million audiograms) that can be accessed by all VA audiologists across the country
  – National outcome measure for monitoring hearing aid program (International Outcomes Inventory for Hearing Aids)
• Current innovations (continued):
  – Progressive Tinnitus Management
  – TeleAudiology used to provide remote diagnostics, remote hearing aid programming, and education on hearing loss and tinnitus
    • Over 16K Tele-Audiology encounters in FY2014
    • Tele-Audiology outcomes are as good as or better than traditional face-to-face encounters
  – Automated Audiometry – interactive self-administered threshold test
  – Home Hearing Test
  – Hearing aid programming in the home through smart phones/tablets

• Continually evaluating emerging technologies, and integrating new innovative technology into VA continuum of care

• Continuing need for:
  – Evidence-based practices
  – Hearing screening and assessment tools
  – Models for management of hearing loss as a chronic condition
Barriers to Delivery of Hearing Health Care Services

For VA:

- Some VA sites have space constraints that challenge expansion of current audiology services
- Lack of formal screening program for Veterans that could inform and motivate more Veterans to acknowledge hearing health care needs
- Some Veterans are very old or sick and cannot travel outside of the home
- Lack of developed hearing health care networks and standards for VA to partner with the community
- Lack of awareness in general medical community, little reference to or documentation of hearing-related issues in patient’s medical record, little / no understanding of hearing loss measures and audiogram
Veterans Health Initiative – Study guide for VA and non-VA health Care Providers Caring for Veteran Patients

http://www.publichealth.va.gov/vethealthinitiative/hearing_impairment.asp#sthash.InxCNDfJ.dpuf

Hearing Impairment

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Barriers to Delivery of Hearing Health Care Services

For US Medical Community:

• Lack of population health studies for hearing

• Current hearing health care is confusing to patients
  – Clinical practices and hearing loss effects are not well understood
  – Experience is highly individualized based on their hearing loss and situational listening needs
  – Patients enter system by many different ways
  – General medical guidance is highly variable

• Do not have standards of care and clinical practices that address individualized approach to hearing health care

• Models of practice have not ‘unbundled’ the device (hearing aid) from professional services (e.g., assessment, evaluation, fitting, counseling, follow-up), and limits differentiating the contribution of each component of care
Barriers to Delivery of Hearing Health Care Services

For US Medical Community (continued):

- Continued debate about how well hearing aids work
- Lack of consistent insurance coverage and Medicare reimbursement, particularly for hearing assessment, aural rehabilitation interventions including counseling and patient education
Recommendations for Improving Accessibility and Affordability of Hearing Health Care Services

• Modify current delivery model approach to be based on unique needs and functional capabilities of the individual
  – Conceptualize hearing health care in a population health model addressing prevention, education, management, surveillance and treatment
  – Revise FDA medical device requirement to recognize continuum of, and individuals’ right and access to, safe commercially available hearing technologies (from simple amplifying devices to sophisticated advanced communication devices)
  – Revise FDA requirement for hearing aid use to provide meaningful consumer protection based on hearing related functional need and assessment of risks, and consider use of warning signs and triage by health care providers for ear related medical disease (i.e., not merely medical evaluation / waiver as precursor)
  – Increase understanding and presence of audiologic testing and services for Primary Care physicians to expand access to hearing health care services, screening tools, self management and counseling
  – Hearing health services (separate from devices) – needed to evaluate hearing, identify disorders, assess needs, fit the most appropriate technology, or refer for other medical treatment – should be recognized and covered
Recommendations for Improving Accessibility and Affordability of Hearing Health Care Services

- Invest in and promote availability of hearing screening tools that allow individuals to screen their hearing at their own convenience, and potentially inform and motivate more individuals to acknowledge hearing health care needs and seek help (e.g., blood pressure reading in pharmacy).
- Increase awareness and understanding with regard to hearing care and provision of services among medical community and general public; e.g., public service education, medical training initiatives such as White House ‘Joining Forces’ initiative.
What is good for public health overall is good for Veterans and VA

• VA can serve as a model for comprehensive hearing health care
• VA utilizes a patient-centered, integrated team approach to care that includes audiologists as licensed, independent providers
• VA utilizes evidence-based, best clinical practices in its delivery of services
• VA continually evaluates emerging technologies, and integrates new innovative technologies into its continuum of services
• VA strives to make hearing health care as inclusive (from prevention → treatment), widely available, and accessible as possible
• Improved patient satisfaction and outcomes drives expansion and utilization of services
TO CARE FOR HIM WHO SHALL HAVE BORNE THE BATTLE AND FOR HIS WIDOW, AND HIS ORPHAN

A. LINCOLN
Back-up Slides
Audiometric Repository

- Evaluation of “Noise Notches” from 744,552 Audiogram Pairs
- Only 22.9% exhibited a 4000 Hz notch in at least one ear
- Unilateral LE (8.3%), Unilateral RE (7.6%), and Bilateral notches (6.9%) had essentially the same prevalence
- Age cohorts 50 and 60 had the highest prevalence for notches
- Data suggest (1) that high frequency notches are caused by a multitude of factors including noise exposure; and (2) ear are differentially sensitive to what is causing audiometric notches
Progressive Tinnitus Management

1. **Triage / Referral:** Health care provider

2. **Audiologic Evaluation:** Audiologist

3. **Counseling / Group Education:** Audiologist, Psychologist provide self-management techniques, knowledge

4. **Tinnitus Evaluation:** Interdisciplinary team comprehensive assessment

5. **Individualized Management:** includes sound-based therapy, relaxation techniques, cognitive-behavioral therapy, drug therapy, combined techniques.

[Non-bothersome tinnitus: Only education needed]
TeleAudiology Expansion Initiative
FY 2014-2015

• Collaboration
  – Rehabilitation and Prosthetic Services
  – Audiology and Speech Pathology National Program Office
  – Office of Telehealth Services.

• Expand from original 10 Pilot sites to 71 sites nationally.

• Implement remote programming of hearing aids, as well as provide remote audiometry utilizing integrated sound level meter capabilities.

• Active TeleAudiology Programs exist in 20 of 21 VISNs.

• 132 sites with Telehealth carts containing audiology equipment
**TeleAudiology Outcomes-IOL-HA**

VA has collected 3,315 Tele-Audiology outcomes.

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<tbody>
<tr>
<td>All Veterans</td>
<td>4.46</td>
<td>4.09</td>
<td>3.84</td>
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<td>3.96</td>
<td>4.54</td>
<td>4.0</td>
<td>4.04</td>
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Scoring: 1=poorest outcome, 5=best outcome

**Tele-Audiology outcomes are as good as or better than traditional face-to-face encounters.**
Automated Audiometry
Audiology, Inc.

• Multiphase pilot included three (3) modalities: Clinical Video Telehealth, Store and Forward, and Home Telehealth
• Over 400 Veterans evaluated during FY13 and FY14
• Innovations Selection Board-Approval for expansion-Jan 2015
• Additional development includes integration with EHR/medical imaging platform, speech testing, and establishing various Telehealth Quality Measures
SmartPhone App for Home Programming Hearing Aids—Phonak

- Ability to remotely connect with secure VA-networked PC to patient using Android Smartphone and wireless interface
- Basic troubleshooting, programming adjustments, and datalogging
- Feasibility testing and trials have been positive