

WORK PROCESS SCHEDULE
HEARING AID SPECIALIST
O*NET-SOC CODE: 29-2092.00 RAPIDS CODE: 2033CB

Description: In a manner consistent with state law: Elicit patient case histories; administer otoscopy for the purpose of identifying possible otological conditions; administer cerumen management in the course of examining ears, taking ear impressions and/or fitting of hearing aids; administer and interpret tests of human hearing and middle ear function, including appropriate objective and subjective methodology and measures; determine candidacy for hearing aids, hearing assistive devices or referral for cochlear implant evaluation or other clinical, rehabilitative, or medical interventions; select and fit appropriate hearing aids and assistive devices; assess hearing aid efficacy; take ear impressions; design and modify earmolds and auditory equipment; provide counseling and aural rehabilitative services; provide tinnitus management to clients who exhibit symptoms of tinnitus during an evaluation of hearing loss conducted for the purpose of determining the appropriateness of hearing aids and/or tinnitus devices; provide supervision and in-service training of those entering the dispensing profession; and provide post-fitting, and hearing aid care and repair services.

INSTRUCTIONS: The Supervisor/Trainer will check-off each of the Core Competency and enter the completion date as the apprentice demonstrates a level of proficiency that is equivalent to a journeyworker level employee with Supervisor/Trainer sign off.

Observes Sanitation Protocols to Protect the Patient/Client and the Practitioner

- Recognize World Health Organization sanitation and sterilization guidelines
- Differentiate among disinfectants, virucides, and cleaning agents
- Distinguish between sanitation and sterilization
- Explain when and demonstrates how to use disinfectants, virucides, and cleaning agents
- Explain when and demonstrates how to use gloves, masks, and other protective clothing
- Practice universal precautions

Observe protocols to clean and sanitize equipment and surfaces in the practice environment

- Distinguishing between single-use and multiple-use items
- Explain when and demonstrate how to sanitize multiple-use items
- Explain when and demonstrate how to properly dispose of single-use items
- Explain when and demonstrate how to properly dispose of sanitizing agents

Identifies the patient's/client's needs

- Identifies and applies the mandatory referral criteria ("Red Flags")
- Questions the patient/client and family/caregivers appropriately
- Discovers and documents patient's/client's:
 - Hearing History
 - Contributory History
 - Perceptions
 - Physical Limitations Pertinent to Amplification
- Discovers and documents perceptions of the patients/clients family/caregiver

Performs a visual inspection of the patient's/clients ear to identify contraindications for proceeding with the hearing evaluation

- Identifies the landmarks of the external auditory meatus and tympanic membrane
- Explains the physiology of the external auditory meatus
- Uses proper otoscopic techniques (including bridging and bracing) to protect the patient/client
- Employs proper sanitation and safety procedures
- Observes the tympanic membrane, auditory meatus, and pinna to identify potential pathologies
- Reports the presence of mandatory referral criteria (e.g., "Red Flags")
- Recognizes that cerumen management is required
- Documents accurate results and data interpretations

Performs tympanometry

- Classifies the different tympanograms
- Explains the importance of conducting otoscopy before tympanometry
- Employs proper sanitation and safety procedures
- Selects the proper probe tip for the patient/client
- Interprets the findings
- Documents accurate results and data interpretations

Performs audiometric testing

- Identifies special audiometric tests (e.g. PB rollover, Tone Decay, Weber, etc.)
- Explains the importance of conducting otoscopy prior to the hearing test
- Verifies that ambient noise level of test environments is within ANSI standards
- Checks calibration of test equipment
- Performs biological test of equipment
- Employs proper sanitation and safety procedures
- Demonstrates proper placement of transducers
- Determines pure tone thresholds and performs supra-threshold measurements
- Applies effective masking
- Performs speech audiometry with masking
- Instructs patient/client how to respond to the test stimuli
- Recognizes indications that special audiometric tests are necessary
- Documents accurate results
- Reports the presence of mandatory referral criteria (e.g., "Red Flags")
- Documents accurate results and data interpretations

Interprets evaluation results for the purpose of patient/client information, hearing instrument candidacy, referral, and/or communication with other healthcare professionals

- Reports the presence of mandatory referral criteria (e.g., "Red Flags")
- Describes degrees of hearing loss and applies them to the patient's/clients results
- Describes the audiometric findings to the patient/client, family/caregivers, and/or other healthcare professionals
- Documents accurate results and data interpretations
- Applies evaluation results to hearing instruments candidacy
- Relates evaluation results to a prognosis for improved communication ability

Relates the anatomy and physiology of the human auditory system to hearing evaluation results

- Performs and interprets otoscopy
- Performs and interprets tympanometry
- Performs and interprets audiometric testing
- Performs and interprets the hearing evaluation

Identifies physical limitations of the patient/client that impact the selection of style/type of amplification

- Applies issues of manual dexterity, visual acuity, coordination, numbness, etc. on selection of style/type of amplification
- Explains the influence of the patient's/client's ear anatomy on selection of style/type of amplification
- Relates the patient's/client's cognitive ability to the recommendations for the style/type of amplification
- Explains the potential impact of the patient's/client's medical conditions on selection of style/type of amplification
- Documents accurate observations and recommendations

Identifies patient/client preferences for style/type of amplification

- Compares and contrasts various styles/types of amplification
- Discovers the patient's/client's preferences regarding style/type of amplification
- Documents accurate observations and recommendations

Identifies electro-acoustic parameters for amplification

- Explains the impact of amplification in various environments
- Identifies the patient/client needs and/or wants that can be addressed through use of optional accessories, assisted listening devices, and/or FM systems
- Documents accurate recommendations and basis for recommendations
- Documents accurate results and data interpretations

Recommends appropriate style/type of amplification to patient/client

- Relates to patient/client and family/caregiver the benefits and limitations of amplification and the specific styles/types of amplification as applied to the patient/client
- Explains the impact of circuit drain of the amplifier on battery life
- Justifies the recommendation of a particular style/type of amplification based upon the results of the hearing evaluation and the patient's/client's preferences and lifestyle
- Documents accurate findings, interpretations, and recommendations

Performs visual inspection of the patient's/client's ear(s) for otoblock placement

- Identifies the anatomy of the external auditory meatus
- Explains the anatomy and physiology of the external auditory meatus
- Applies proper otoscopic techniques to protect the patient/client
- Practices proper sanitation and safety procedures
- Observes the tympanic membrane, auditory meatus, and pinnae to identify potential pathologies
- Applies the mandatory referral criteria (e.g., "Red Flags") to each patient/client
- Judges whether cerumen management is required

- Documents accurate results and data interpretations

Selects appropriate otoblock

Justifies the material, otoblock size, lubrication, and venting/no venting used

Inserts otoblock in patient's/client's ear

- Selects the appropriate tools/equipment
- Determines and places the otoblock to the appropriate depth
- Practices proper sanitation procedures
- Practices proper safety precautions during insertion (brace and position head, bite block)
- Performs otoscopy to confirm correct placement of otoblock
- Documents accurate results

Takes appropriate impression for style/type of acoustic coupler, ear plug or earmold

- Selects the appropriate type of impression material
- Selects the appropriate insertion methodology
- Practices proper sanitation procedures
- Practices proper safety precautions during insertion
- Produces an impression without voids or gaps
- Demonstrates the use of an adequate curing time
- Removes the impression without harming the impression or the client/patient
- Performs post-impression otoscopy to determine that no otoblock, debris, or excessive irritation exists in ear canal
- Documents accurate results

Performs physical and/or electronic check of hearing instrument to verify it is as ordered and operating correctly

- Selects a testing method for the hearing instrument check
- Practices proper sanitation procedures
- Verifies that:
 - Directional microphones are functioning
 - Distortion is within acceptable parameters
 - All accessories are included and operational
- Documents accurate results

Fits hearing instrument using computerized algorithms or other appropriate methods

- Selects appropriate fitting formula
- Couples the hearing instrument to the programming device
- Uses appropriate audiometric data and programming software for the initial hearing instrument fit
- Documents accurate results

Places hearing instrument in patient's/client's ear and verify fit

- Practices proper sanitation procedures
- Visually verifies physical fit of the hearing instrument
- Solicits feedback from patient/client regarding comfort of fit
- Engages appropriate acoustic feedback control

- Documents accurate results, recommendations, and decisions

Modifies hearing instrument and/or earmold for comfort and proper acoustic performance

- Practices proper sanitation and safety procedures
- Adjusts electro-acoustic parameters as needed
- Adjusts the acoustic coupler as needed
- Adjusts subjective parameters based upon patient's/client's preferences
- Documents accurate results, recommendations, and decisions

Performs validation of patient's/client's aided performance

- Demonstrates the use of fitting validation inventories
- Demonstrates the use of word lists as a fitting validation method
- Interprets results of validation inventories and word lists
- Documents accurate results and data interpretations

Performs verification of the fitting of the hearing instrument

- Demonstrates the use of and interpreting real ear measurements
- Demonstrates the use of and interpreting speech mapping data
- Demonstrates the use of and interpreting sound field measurements
- Documents accurate results and data interpretations

Discusses appropriate expectations of amplification with patient/client and family members/caregivers

- Explains the realistic expectations and limitations for hearing instrument performance
- Describes the purpose of memories/programs, features, and accessories based on the patient's client's audiometric data
- Summarizes the life expectancy, recommended maintenance schedule, and potential malfunctions of the hearing instrument
- Explains the relationship between hearing instrument cosmetics, power, and acoustic performance
- Accurately documents discussions with and recommendations made to the patient/client and family members/caregivers

Discusses use of the hearing instrument with patient/client and family member/caregivers

- Instructs patient/client and family members/caregivers on:
 - Care of hearing instrument
 - How to insert and remove hearing instrument
 - Battery usage
- Demonstrates to the patient/client and family members/caregivers as necessary, how to troubleshoot the hearing instrument
- Examines with patient/client and family members/caregivers features of hearing instrument
- Reviews with the patient/client and family members/caregivers manufacturer's warnings, specifications, and instructions
- Accurately documents discussions with and recommendations made to the patient/client and family members/caregivers

Discusses coping strategies with patient/client and family members/caregivers

- Explains lifestyle modifications necessitated by patient's/client's hearing loss

- Describes physical modifications to the living space necessitated by the patient's/client's hearing loss
- Accurately documents discussions with and recommendations made to the patient/client and family members/caregivers

Implements therapeutic adjustments

- Determines use and wearing schedule of hearing instruments
- Schedules and implements incremental electro-acoustic changes to increase patient/client use tolerance to achieve optimum aided performance
- Documents accurate recommendations and decisions

Discusses auditory rehabilitation with patient/client

- Determines appropriate patient/client assignments to achieve optimum aided performance
- Establishes realistic expectations for patient's/client's aided performance
- Documents accurate recommendations and decisions

Discusses with family/caregivers their role in aural rehabilitation

- Establishes realistic expectations for patient's/client's aided performance
- Instructs on and demonstrates effective communication techniques
- Documents accurate recommendations and decisions

Discusses with patient/client environmental listening strategies

- Explains how patient/client should position him/herself to maximize effectiveness of amplification in various environments
- Documents accurate recommendations and decisions

Educates the patient/client and family/caregivers on use of assistive devices to compliment the hearing instrument

- Identifies locations that provide assistive devices
- Demonstrates and explains the use of assistive devices
- Documents accurate recommendations and decisions

Recommends additional resources

- Explains the value of additional resources
- Documents accurate recommendations and decisions

Provides ongoing care for patients/clients

- Explains the importance of:
 - Tracking changes in the patient's/client's hearing and health/medications
 - Soliciting the patient's/client's and third-party observations and comments
 - Otoscopy at regularly scheduled intervals
 - Keeping accurate and complete records

Provides ongoing care and maintenance for hearing instruments

- Practices proper sanitation and safety procedures
- Reprograms hearing instruments:
 - Based upon changes in the patient's/client's hearing
 - As needed to achieve and maintain patient's/client's optimum aided performance
- Modifies hearing instruments to achieve and maintain patient's/client's optimum aided

performance

- Explains the importance of regularly scheduled maintenance visits
- Explains the importance of keeping accurate and complete records

Troubleshoots hearing instrument performance

- Practices proper sanitation and safety procedures
- Inspects the hearing instruments and/or acoustic couplers
- Performs listening checks
- Performs and interprets electro-acoustic analysis
- Appraises battery, battery contacts, and circuit drain
- Documents accurate results, interpretations, recommendations, and decisions

Visually inspects patient's/client's ear for debris, cerumen build-up, infection, etc.

- Practices proper sanitation and safety procedures
- Visually observes
- Performs otoscopy
- Documents accurate results, interpretations, recommendations, and decisions

Repairs hearing instruments

- Discriminates among various tubing sizes and thickness
- Describes the different bonding agents for various earmold materials
- Practices proper sanitation and safety procedures
- Modifies or replaces the acoustic coupler
- Replaces battery doors, wax guards, microphone cover, etc.
- Removes debris from various hearing instrument components
- Changes tubing
- Identifies when the repair requires a factory return
- Documents accurate results, interpretations, recommendations, and decisions

**RELATED INSTRUCTION OUTLINE
HEARING AID SPECIALIST
O*NET-SOC CODE: 29-2092.00 RAPIDS CODE: 2033CB**

| | APPROXIMATE HOURS |
|---|------------------------------|
| Provider: International Hearing Society | |
| 1. Hearing Instrument Science and Fitting Practices (2nd Ed.) | 28 |
| a. Basic Hearing Science | |
| b. Audiometric Assessment and Interpretation | |
| c. Hearing Instrument Systems Technology & Performance Standards | |
| d. Acoustic Couplers | |
| e. Selecting Amplification Systems | |
| f. Principles of Sound Field Audiometry | |
| g. Probe Microphone Measurements | |
| h. Post-Fitting Care and Processes | |
| i. Psycho-Social Principles of Hearing Impairment | |
| j. Geriatric Considerations in Hearing Aid Fitting | |
| 2. Intro to the Auditory System (1st Ed.) | 21 |
| a. Anatomy and Physiology of the Auditory System | |
| b. Hearing Disorders | |
| c. Comprehensive Hearing assessment | |
| 3. Masking-Practical Applications of Masking Principles and Procedures (3rd Ed.) | 4 |
| a. Purpose for Masking | |
| b. Masking Characteristics | |
| c. Masking Noise | |
| d. Practical Application of Masking Methods | |
| 4. Workbook: Distance Learning for Professionals in Hearing Health (5th Ed.) Sciences | 91 |
| a. The Human Ear | |
| b. Audiometric Testing | |
| c. Hearing Instruments | |
| d. Hearing Instrument Fitting | |
| TOTAL HOURS | 144 |

YEAR 2

Provider: International Hearing Society (cont'd)

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| 5. Workbook: Distance Learning for Professionals in Hearing Health Sciences (5th Ed.) (Cont'd) | 11 |
| a. The Human Ear | |
| b. Audiometric Testing | |
| c. Hearing Instruments | |
| d. Hearing Instrument Fitting | |
| 6. Outcome Measures and Troubleshooting (1st Ed.) | 6 |
| a. Objectives | |
| b. Objective Measures | |
| c. Objectives in Physical Fit of Custom Hearing Instruments | |
| 7. Altering Behaviors: A Powerful Approach to Aural Rehabilitation (1st Ed.) | 2 |
| a. Introduction to Counseling | |
| b. Counseling | |
| c. Five Stages of Dealing with Loss | |
| d. The Protocol | |
| e. Patient Education | |
| f. Follow-up | |
| g. Communication System | |
| 8. Trainer Manual (1st Ed.) | 19 |
| a. The Human Ear | |
| b. Audiometric Testing | |
| c. Hearing Instruments | |
| d. Hearing Instrument Fitting | |
| 9. Audioprosthology: Hearing Instrument Selection, Fitting and Verification (1st Ed.) | 15 |
| a. Introduction to Hearing Instrument Selection, Fitting and Verification | |
| b. Hearing Aid Measurements | |
| c. Live Speech Mapping | |
| 10. Ethics Laws and Rules – Webinars | 3 |
| a. How to Avoid the Top Ethics Pitfalls for Hearing Healthcare Professionals | |
| b. Ethics: Exercise (or Exorcise) Legal and Ethical Dilemmas in Your Hearing Healthcare Practice | |
| c. Ethics and Contractual Analysis for the Hearing Healthcare Professional | |

Provider: State Licensing Agency

- 11. IHS Study Guide for the written licensing exam** **6**
Provides the apprentice important information about taking the written licensure examination, including specifications of the examination, the competency model for hearing aid dispensers, learning descriptions, and a sample test questions.
- 12. State Licensing Laws and Regulations** **30**
Review of the state of intended licensure's laws and rules, which may include the scope of practice, license renewal process and requirements, consumer protections, unprofessional conduct, disciplinary and complaint procedures, and hearing testing, equipment and quality control, and retention of records requirements.

Provider: U.S. Food and Drug Administration

- 13. Federal Rules Governing Hearing Aid Devices** **3**
Provides rules related to Professional and Patient Labeling and Conditions for Sale, including FDA Red Flags requiring referral to a physician, important disclaimers for prospective purchasers, and rules regarding hearing aid sales to children (21 CFR §801.420 and 801.421).

Provider: Various Publishers

- 14. Infection Control in the Audiology Clinic (2nd edition).**
Bankaitis, A.U and Robert Kemp. (2005) Missouri: Oaktree Products **6**
- a. Infection Control
 - b. The Immune System
 - c. Microbiology and Infectious Diseases
 - d. HIV/AIDS – The Catalyst of Change for Infection Control
 - e. Regulatory Agencies
 - f. Infection Control Principles and Requirements
 - g. Basic Infection Control Procedures
 - h. Infection Control for the Most Common Audiology Procedures
 - i. Infection Control and Cerumen Management
 - j. Infection Control Procedures in the Hearing Aid Clinic
 - k. Infection Control and Cochlear Implants
- 15. The Comprehensive Dictionary of Audiology:**
Illustrated by Brad A. Stach, PhD (2nd Ed.) **5**
Resource with over 7,000 terms integral to the profession, practice, and science of audiology. Concise, current, and accessible, this edition is a response to the expansion of information and technology that has occurred in the field of audiology over the past few years. Useful illustrations and tables enrich the definitions and a wealth of appendices round out this handy desktop reference.

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| 16. Introduction to Audiology (11th Ed.). Martin, Frederick and John Clark. (2011). New York: Allyn & Bacon | 19 |
| a. Elements of Audiology | |
| b. Hearing Assessment | |
| c. Hearing Disorders | |
| d. Management of Hearing Loss | |

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| 17. Fitting and Dispensing Hearing Aids Taylor, Brian and Mueller, H. Gustav, CA: Plural Publishing Inc. (2011) | 11 |
| a. Basic Psychology of Hearing Loss in Adults | |
| b. Acoustics at the Speed of Sound | |
| c. Basic Anatomy and Physiology of the Ear | |
| d. Measurement of Hearing | |
| e. Hearing Disorders and Audiogram Interpretation | |
| f. The Hearing Aid Selection Process | |
| g. All About Style: Hearing Aids and Earmolds | |
| h. Hearing Aids: How They Work! | |
| i. Advanced Hearing Aid Features | |
| j. Outcome Assessments and Post-fitting Issues | |
| k. "Selling" Hearing Aids: It's Not a Bad Thing! | |

Provider: U.S. Department of Health and Human Services

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| 18. Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy and Security Rules | 8 |
| a. Privacy Rule 45 CFR Part 160 | |
| 1. General Provisions | |
| 2. Preemption of State Law | |
| 3. Compliance and Investigations | |
| 4. Imposition of Civil Money Penalties | |
| b. Security and Privacy 45 CFR Part 164 | |
| 1. General Provisions | |
| 2. Security Standards for the Protection of Electronic Protected Health Information | |
| 3. Notification in the Case of Breach and Unsecured Protected Health Information | |
| 4. Privacy of Individually Identifiable Health Information | |

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| Year 2 hours | 144 |
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| TOTAL HOURS | 288 |
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