

## **A Professional Practice Profile for Hearing Health Professionals**

Hearing instrument dispensing includes several professions that overlap. There are traditional hearing aid dispensers, board certified hearing health professionals, hearing aid practitioners, hearing instrument specialists, audioprosthologists, audiologists, doctors of audiology, otolaryngologists, and other doctors of medicine. This document summarizes the scope of dispenser services as defined by the 1999 NBC-HIS Role Delineation Study of Hearing Aid Dispensers (D'Costa, 1999). It does not replace or supersede current state and federal regulations governing the practice of hearing instrument dispensing, but is specific to the training and legitimate professional activities of those practitioners licensed in hearing instrument dispensing. A role study is similar to a job analysis, and is based on a national survey of the critical tasks and responsibilities performed by hearing instrument dispensers. The NBC-HIS Role Studies have provided the Competency Model used as the blueprint in the development of the IHHIS International Licensing Examination for hearing instrument dispensers and the NBC-HIS Board Certification Examination in the Hearing Instrument Sciences.

Simply put, the purposes of this document are twofold:

- To provide a ***model hearing instrument dispenser practice plan*** for state/provincial licensing boards, and
- To provide consumers, government agencies, and other interested parties, official ***information*** about the ***specific services and understandings a patient has the right to expect*** from a competent hearing health professional.

The NBC-HIS Role Delineation Study (D'Costa, 1999) found that the vast majority (90%) of today's dispensers are college educated. Yet, this profession lacks the identity and definition usually provided by a formalized university program. Other professional disciplines that include hearing aid dispensing within their scope of practice are designed to cover many other areas as well. McSpaden (1994) noted that a major problem for the field arises from the fact that the three types of hearing health care providers – physicians, audiologists, and hearing aid dispensers, bring very different training perspectives to their practices. An educational program specializing in hearing instrument sciences is a necessity in order to meet the needs of the growing population of hearing impaired. The Canadian model started at Grant-McEwan College in Edmonton, Alberta has been the foundation on which other new programs around the US and Canada are being developed.

Hearing health professionals serve patients of all ages appropriate to their training and scope of licensed practice, regardless of their ethnicity, racial, religious, cultural, linguistic or socioeconomic status. They also recognize and respect the scope of practice and services provided by other professionals within the medical, clinical, rehabilitative and related hearing healthcare professions. Furthermore, they work cooperatively with these professionals in the best interests of the hearing impaired consumer they serve.

The national Quality of Life Study (HIA-NCOA, 1999) estimated that there are about 30 million persons in the USA (about 10% of the population) with some degree of hearing loss, and fewer than 6 million of these (less than one in five) wear a hearing instrument. McSpaden (1994) estimated that there are approximately 2500 physician offices, 7000 audiologists, and 7000 hearing instrument dispensers currently practicing in the USA. While this workforce is numerically inadequate (1 dispenser for 1800 clients), and needs to increase ten-fold, the problem for consumers is compounded by a lack of standardized information about dispensing practice characteristics and expectations. Although the public excoriations of confusing dispensing claims and practices (AARP, 1983) are now relegated to history, the need for a public document presenting a national dispenser practice plan remains as critical as ever.

The following guiding principles and assumptions were used in the development of this Professional Practice Profile for Hearing Health Professionals:

- Only those professionals who hold professional licenses which allow hearing aid dispensing, and who have appropriate training and experience may provide specific procedures.
- Safety and health of the patient are the most important considerations in all practice decisions and actions.
- All dispensing procedures are performed in a manner as to prevent bodily injury and infection.
- Hearing aids may be only part of the answer for improved communication; therefore, it is important to recognize and to encourage the use of other assistive listening devices for patients.
- Hearing health care requires a team effort. Dispensers must work with other professionals, as needed, to maximize patient care and inter-professional collaboration.
- Dispensers form a partnership with each of their patients to help achieve total communication with their own world, thus enabling their development and participation in all aspects of their life.
- All equipment must be maintained according to the manufacturer's specifications and recommendations. Equipment must be properly calibrated and necessary records maintained.
- Decontamination, cleaning and disinfection of multiple-use equipment must be carried out according to facility-specific infection-control policies and manufacturer's guidelines.
- Ambient noise levels in the test environment must be appropriate to the practice setting.
- Documentation must be maintained in accordance with local regulations, and in keeping with good professional practice.

The NBC-HIS 2000 Role Delineation Study analyzed the responses of survey responders to 100 tasks in terms of the 'frequency' with which each task was performed, and in terms of the 'level of supervision' occurring with each task performance. Sixteen broad procedures were identified using statistical clustering of the tasks and are listed below.

1. **Elicit patient/client case histories**, including medical, otological, pharmacological, previous amplification history, and patient attitudes and expectations.
2. **Administer otoscopy** for the purpose of identifying possible otological conditions, including, but not limited to, the FDA red flag conditions that may indicate the need for medical referral, or which may have a bearing on needed rehabilitative measures, outcomes, and/or recommendations.
3. **Administer cerumen management** in the course of examining ears, taking ear impressions and/or fitting of hearing instruments.
4. **Administer and interpret tests of human hearing**, including appropriate objective and subjective methodology and measures.
5. **Determine candidacy for hearing instruments**, assistive devices, or for referral for cochlear implant evaluation or other clinical/rehabilitative/medical intervention.
6. **Prescribe, select, and fit appropriate hearing instruments and assistive devices**, including appropriate technology, electroacoustic targets, programming parameters, and special applications as indicated.
7. **Assess hearing instrument efficacy** utilizing appropriate fitting verification methodology, including all available fitting validation methods.
8. **Take and prepare ear impressions for prosthetic adaptation** of hearing instruments, assistive devices, telecommunications applications, ear protection, and other related applications.
9. **Design and modify earmolds and auditory equipment** requisite to meet individual patient needs.

10. **Provide rehabilitative advice and counseling** in the use and care of hearing instruments, assistive devices, and in effectively utilizing communication coping strategies and other approaches to foster optimal patient rehabilitation. (See appendix for list of resources.)
11. **Counsel family member and other interested parties relative to psychosocial and rehabilitative considerations** for optimal patient outcomes.
12. **Provide long-term patient care**, including periodic audiometric updates and recommendations for modifying rehabilitation programs to help meet patients' changing needs over time.
13. **Refer and cooperate with other allied professionals** in meeting the needs of the hearing impaired.
14. **Provide supervision and in-service training** of those entering the dispensing profession.
15. **Maintain and update knowledge and skills in current and future diagnostic and technological advancements** within the hearing industry.
16. **Consult with industry in the development of products and services** relating to aiding hearing impairment.

The sixteen procedures listed above were then grouped into 6 major areas as follows:

1. **Assess patient presenting problem and needs**
2. **Test and analyze patient hearing**
3. **Prescribe and analyze hearing aid**
4. **Fit, adjust, program, and service hearing aid**
5. **Counsel and help rehabilitate patient**
6. **Manage office and practice**

This Professional Practice Profile details expected outcomes, indications for procedures, and the procedures for each of the six areas outlined above. The Profile represents currently accepted practices in dispensing hearing instruments for hearing health professionals. As technology and education advance over time, new methods, skills, and services will be added thereto.

### **1. Expected Outcomes**

- Although results vary from person to person and the outcome cannot be guaranteed, a reasonable statement of prognosis may be made to the patient, the family, and other professionals.
- While patient satisfaction is the ultimate determining factor in a successful fitting, measurement and monitoring of results should be done to ensure and/or improve the quality of service.
- Regularly scheduled follow-up services should be provided to assess the need for other services and to monitor the effectiveness of the fitting and/or the level of hearing.

### **2. Indications for Procedures**

- Hearing screening may be used to identify individuals who may need further hearing evaluation and/or hearing rehabilitation.
- Services are provided when there is a reasonable prognosis of benefit to the patient.

### **3. Procedures**

- All procedures are done in accordance with standard levels of practice.
- Counseling of the patient and family/caregiver is critical to the understanding of the nature of the communication problem and to the setting of reasonable expectations from services.
- When indicated by results of procedures, referrals are made to the appropriate medical and/or other professional.

- The lifestyle, preferences, special needs, and economic priorities of the patient are critical components of the products recommended by the dispenser.

## **PROFESSIONAL PRACTICE PROFILE**

### **1. ASSESS PRESENTING PROBLEM AND NEEDS**

#### **Expected Outcomes**

- Identification of factors in the patient's background that may put him at risk for hearing problems
- Identification of FDA red flags that would require a referral for medical evaluation
- Identification of other medical problems that may have an impact on the methods used for procedures and/or expected outcomes of hearing aid fitting.
- Identification of family members' concerns regarding patient's hearing difficulties
- Exploration of patient attitudes and expectations of amplification
- Identification of problems with hearing and understanding
- Identification of daily activities and impact of hearing loss on lifestyle
- Identify impact of hearing loss on family, friends, and in the workplace

#### **Indication for Procedure**

- Individuals being seen for either hearing screening or hearing evaluation.

#### **Procedure Methods**

- Typically consists of a combination of written answers to a series of questions, elaboration of those answers by oral questioning, and behavioral observation.
- Areas covered include but are not limited to: family history of hearing loss, incidence and duration of childhood hearing-related illnesses, information regarding dizziness, loss of balance, or tinnitus, current medication/drug history, history of noise exposure and acoustic trauma. In addition it is critical to elicit family members concerns about patient's hearing difficulties, the patient's attitudes and expectations regarding amplification, and the patient's own assessment of their hearing difficulties.
- Additional areas that must be covered include but are not limited to questions regarding history of ear surgeries, diseases and treatments, information regarding past experiences with amplification, questions and observation regarding ear deformity, pain, sudden hearing loss, ear infection, disease, drainage or blockage requiring medical referral.

### **2. TEST AND ANALYZE HEARING**

#### **Expected Outcomes**

- Basic hearing evaluation is conducted to quantify and qualify hearing loss on the basis of perceptual responses to acoustic stimuli and to describe any associated communication disorders.
- Results of the evaluation may result in recommendations for more advanced testing, medical referral, amplification consultation, assistive listening device consultation, or follow-up recommendations.
- Speech discrimination tests are performed for additional information about a hearing loss
- Evaluation may result in recommendation for a medical referral, amplification, aural rehabilitation, and/or counseling.
- Determine need for medical referral based on audiometric air-bone gap results.
- Determine degree, type, and configuration of hearing loss from test results.

- Hearing instrument efficacy will be determined by pre-post audiometric measures

#### **Indications for Procedure**

- Hearing evaluation may be done when a hearing screening is failed.
- Hearing evaluation is generally prompted by self-referral, family referral, failure of an occupational hearing test, or referral from other professionals.

#### **Procedure Methods**

- Hearing evaluation is preceded by eliciting the hearing history and assessing the hearing problem. This is followed by examination of the external ear canal and cerumen management, if necessary.
- The standard audiometric tests consist of pure-tone air and bone conduction testing with appropriate masking using the TDH-39 standard. It is our recommendation that all providers move to the EAR-3 or equivalent insert earphones standard by July 1, 2005. Some professionals also choose to do loudness growth testing at this time.
- Speech testing includes speech awareness and/or speech reception threshold tests, speech discrimination tests, and establishing MCL and UCL thresholds (appropriate masking used as required). In addition further information can be gained by doing unaided and aided sound-field discrimination tests and by testing binaurally as well as monaurally.
- Special audiometric tests are performed for additional information about a hearing loss.
- Evaluation may result in recommendation for a medical referral, amplification, aural rehabilitation, and/or counseling.
- Procedures such as immittance audiometry (tympanometry and reflexes) are quite common
- Procedures to assess cochlear versus retro cochlear (i.e., eighth cranial nerve, brainstem, or cortical) auditory disorders include:  
Acoustic reflex threshold  
Tone decay testing  
PiPb rollover testing
- Special procedures for testing infants and children as appropriate to licensure or evaluating tinnitus are also sometimes called for.
- Evaluate the reliability and validity of the test results.
- Evaluate test results to determine the presence of collapsed ear canals.
- Evaluate aided sound field measures and/or real-ear aided performance measures or Live Speech Mapping...

### **3. PRESCRIBE AND ANALYZE HEARING AIDS**

#### **Expected Outcomes**

- In consultation with the patient and family, taking into account their lifestyle, special needs, hearing aid style, technology, and price category preferences, selecting the hearing aid that will best fit their needs.
- Provide measurable results of improved hearing thresholds and ease of communication.
- The appropriate specifications for the hearing aid will be selected.

#### **Indications for Procedure**

Individuals identified with hearing loss who have reached a level of acceptance regarding their loss that they are ready to seek help from amplification

#### **Procedure Method**

- Determine hearing aid needed for severity, type, and configuration of hearing loss, keeping in mind the patient's history, lifestyle, and audiogram.
- Discuss with patient the various levels of technology and their different price categories to aid in determination of hearing aid prescription.
- Identify physical limitations affecting hearing instrument selection.

- Prior to dispensing the hearing aid, verification of hearing aid performance is conducted via a listening check to rule out excessive circuit noise, intermittency, and/or poor sound quality.
- Perform electroacoustic analysis to determine if hearing aid is performing according to manufacturer's specifications.
- Confirm telecoil function.
- Programmable and digital hearing aids should be programmed prior to patient's arrival to ensure integrity of programming system and hearing aids.

#### **4. FIT, ADJUST, AND SERVICE HEARING AIDS**

##### **Expected Outcomes**

- Appropriate earmold/hearing aid shell configuration and material will be selected for maximum comfort and hearing aid performance.
- Alleviation of a problem with physical or acoustic comfort (i.e. occlusion, loudness, discomfort)
- Restore the aid to manufacturer's specifications

##### **Indications for Procedure**

- Patient is being fitted for new amplification
- Patient or family report a problem with the function, comfort, or benefit being received from the hearing aid.

##### **Procedure Methods**

- Assess ear canal for ear impression vis-à-vis size, length, and direction.
- Perform proper ear impression procedures, e.g. otoblock placement.
- Determine earmold/hearing aid shell configuration and material.
- Examine surface of earmold and instrument for damage and sharp edges.
- Perform physical fitting of coupler and instrument.
- Appropriateness of physical fit should be assessed through ease of insertion and removal, cosmetic appeal, comfort, absence of feedback, placement of microphone port/ports and ease of volume control use when present.
- Program selected hearing aids to patient's baseline audiometric data.
- Adjust/modify hearing instrument electronics based on patient feedback.
- Make venting modifications as needed for reduction of occlusion effect and or to control feedback. Modify shell or ear mold for improved, more comfortable fit
- In the event the patient returns with a malfunctioning hearing aid, conduct in-office internal inspection of ear mold and instrument and take appropriate corrective action (suctioning wax and debris from receiver and microphone ports, cleaning corrosion from battery contacts, replace earmold tubing, etc). Conduct electric current drain measurement of hearing aid. If in-office repair is not possible return aid to manufacturer for repair and offer the patient a loaner hearing aid to use while his is being repaired.
- If the hearing aid needs to go to the factory for repair, and it is out of warranty, inform the patient of the charges and repair warranty.
- Validation of fitting should be done either with sound field testing using frequency specific thresholds and/or aided speech discrimination and speech reception thresholds or with real ear aided measurements or with Live Speech Mapping.
- Reprogram hearing aids based on patient feedback.

#### **5. COUNSELING AND AURAL REHABILITATION**

##### **Expected Outcomes**

Dispensers assist patients in coming to grips with the reality of their hearing loss and in the process of accepting amplification or other assistive listening devices.

Dispensers educate the family and the patient in the ramifications of a hearing loss and what is a reasonable expectation for improved communication with amplification.

To facilitate listening in various acoustic environments.

To provide alerting systems.

- To augment the benefits of the hearing aids.
- To establish procedures for follow-up.
- To provide information to allied health-care professionals.

### **Indications for Procedure**

- Individuals who have had their hearing evaluated.
- Individuals who are being fitted with amplification.
- Individuals who need more help than their hearing aids can provide in various situations.

### **Procedure Methods**

Explain otoscopic examination and audiometric assessment to patient.

Discuss patient's reactions to hearing instruments.

Discuss with patient various treatment options, e.g. different levels of technology, different styles of hearing instruments.

Provide patient with hearing rehabilitation exercises (several of the manufacturers have good programs for this as well as programs found in the literature).

Explain hearing instrument use in different listening environments.

Instruct patient on proper instrument insertion and removal techniques.

Counsel patient on cerumen management.

Counsel patient regarding care and use of instrument.

Counsel patient on battery life and insertion/removal techniques

Counsel patient on telephone usage with hearing instruments, and assistive listening device coupling as necessary.

- A hearing aid usage schedule is determined.

Counsel patient on amplification expectations and limitations.

- Discussion of appropriate expectations for amplification include: improved communication, freedom from unwanted feedback, minimization of the occlusion effect, and more auditory benefit in quiet than in noise.
- Patient is advised of their legal rights for hearing aid adjustment, replacement and return.
- Self-assessment tools that measure degree of hearing handicap, and/or pre- and post-fitting satisfaction are an appropriate tool for measuring patient satisfaction.
- Instruct patient/family in effective listening techniques with hearing aids.
- Counsel family members about patient's adjustment and use of hearing aids.
- Provide patient with information concerning environmental modifications that can ease communication
- May provide patient with information on speech reading or other aural rehabilitation classes.
- May also include demonstration and information on devices to enhance:

telephone usage

listening to television

listening in church

listening in restaurants and other difficult listening environments

listening in the classroom or auditoriums

telephone, doorbell, smoke alarm alerting systems

- Formulate long-term treatment program
- Establish methods for recording care from treatment to rehabilitation.
- Counsel patient on importance of follow-up visits.

- Provide physician, with patient's permission according to HIPAA standards, your audiometric evaluation and recommendations. Communicate with other allied-health professionals as appropriate.

## **6. OFFICE AND PRACTICE MANAGEMENT**

### **Expected Outcomes**

Equipment will be maintained according to sanitary guidelines and manufacturer's specifications.

Records will be maintained in an organized and efficient manner.

Clinical/ professional knowledge and skills will be current.

### **Indications for Procedure**

- To standardize professional standards and practices.

### **Procedure Methods**

- Maintain equipment to standards of sanitation and cleanliness.
- Supervise sanitization and cleanliness of office personnel.
- Maintain equipment according to manufacturer's specifications.
- Conduct biologic check of audiometric equipment.
- Perform cerumen management procedures using standard techniques/equipment.
- Recruit, train and develop professional and administrative staff.
- Establish supervisory procedures to ensure quality care.
- Develop marketing and advertising plans.
- Provide certification to patient to receive amplified telephone systems where appropriate.
- Identify sources of patient referrals.
- Establish and maintain quality assurance procedures.
- Adopt and follow a professional code of ethics.
- Maintain adequate professional liability protection.
- Design, implement, and monitor hearing care/conservation programs.
- Know governmental laws and guidelines affecting the dispensing profession.
- Update clinical/professional knowledge and skills.
- Attend professional seminars, conferences, and association conventions.
- Maintain patient records in accordance with governmental regulations including HIPAA privacy standards.
- Develop and maintain effective patient/business information systems.
- When billing electronically we must maintain and adhere to all HIPAA standards.
- Formulate short and long range business plans.
- Upgrade office computer systems (hardware and software).

Great strides have been made in raising the standard of care that hearing health professionals give their patients. It is vitally important to bring more professionals into this field as our population ages. It is hoped that the detailed "road map" provided in the Professional Practice Profile can help us provide a more professional and uniform level of service to our hearing impaired patients.



## **LIST OF REFERENCES**

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