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Introduction

The profession of hearing instrument fitting and dispensing has evolved into a licensed allied health profession. It is rich in technology, remarkable in its personalized approach to hearing loss management, and rewarding in its goal of helping people overcome a sensory impairment, one individual at a time. It is a profession that demands adherence to a strict code of ethical professional behavior, continued practitioner development, and a curriculum-based, focused training of new practitioners. This “Train the Trainer” initiative concentrates on this last issue - preparing the next generations of professionals for independent practice.

The “academic training model” for hearing instrument fitting and dispensing is available at only a few academic institutions in the U.S. and Canada. Fortunately, this field of study enjoys a valid alternative option for entry into the profession, that is, the “workplace training model.” The workplace model is on-the-job training, an approach to entry into our profession that is encouraged and supported not only by the International Hearing Society (IHS) but also by most states and provinces in their eligibility requirements for licensure. The knowledge and skill sets necessary for safe and effective clinical practice are acquired under the supervision of a licensed/registered professional. Workplace experience affords the non-academic trainee with an opportunity to achieve entry-level competence.

On a global level, IHS is the only international membership organization for hearing healthcare professionals. In many countries, hearing instrument fitting and dispensing are unregulated and without standards for training. Through the stewardship of our Society, the learning system can be strengthened, thus improving patient outcomes around the world. Our Trainer curriculum initiative can provide our international members and chapters with a guide to developing the knowledge and skills essential for the safe practice of the profession thus standardizing training.

This Trainer Manual is the culmination of two years’ effort by a work group of the International Institute of Hearing Instrument Studies, the International Hearing Society’s education committee. This effort was launched to standardize the education of trainees, an education built on the core competencies of this profession.
A successful training experience depends on the quality of instruction and the commitment of the trainer. Here are some key characteristics of a good instructor:

1. **Know Your Trainee** – A strong working relationship between you and your trainee is essential. You need to know what motivated them to enter this profession. You need to be aware of their learning style. You need to know what they expect from you.

2. **Lead by Example** – As a trainer, you need a strong sense of purpose and high standards in everything you do. If you cut corners, then your trainee will do the same.

3. **Know Your Subject** - You need to be more knowledgeable about every aspect of hearing instrument dispensing than your trainee, and always be striving to learn more. A successful trainer should possess and maintain contemporary technical knowledge and skills. Any lack of knowledge or skill will be quickly detected and your relationship with your trainee will suffer.

4. **Be Patient** – Be respectful of your trainee’s efforts. Failure is always part of the learning process. Demonstrate proper technique, encourage practice, check their work, and maintain a good level of cooperation.

5. **Communicate** – The manner in which you communicate with your trainee is paramount to their learning experience. Set a good example through your relationships and ability to communicate with the other stakeholders in your organization who support your efforts, your business, and provide recognition for the importance of the work you do and the training you’re providing. Encourage your trainee to provide feedback regarding each learning experience as you give them open and candid feedback about their knowledge, skills, and attitudes. Communication also involves active listening, that is, paying attention to body language and other non-verbal cues.

6. **Be Enthusiastic** – Enthusiasm can be infectious (in a very good way!) and sets the tone for positive learning activity.

7. **Enjoy the Training Experience** – Have fun and allow a little humor to create a good learning atmosphere.

8. **Be an Inspiration to your Trainee** – Be honest in your dealings with patients/clients, staff, and others. Show compassion and fairness to all. Always take the high road when conflict arises.

Be passionate about teaching and passionate about learning. Foster your trainee to exercise good problem solving and research skills. It’s important for a professional to be able to state a question and to know how to find the answer using available resources. The development of this skill will serve a hearing aid specialist for a lifetime. Coach your trainee on organizational skills and in time management. Your perspective, advice, and encouragement will help your trainee reflect on his/her own competencies as they are developing.
Unit I: The Human Ear

The Outer Ear and Disorders of the Outer Ear

All required and recommended reading for these lessons:

**Distance Learning Course:**

Lesson 1  The Outer Ear  
Lesson 2  Disorders of the Outer Ear

---

**Trainer Review**  
Start Date  ____/____/____  
Completion Date  ____/____/____

Trainee Signature: ______________________________________________________

Trainer Signature: ______________________________________________________

---

**Notes:**

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Objectives
Upon completion of this section, your trainee should be able to:

• Perform otoscopy with confidence
• Recognize a healthy TM and common abnormalities of the ear
• Provide a proper medical referral

Skills
• Infection control
• Proper handling of the otoscope
• Correct Bridge and Brace
• Positioning for viewing the ear
• Using the video otoscope

Tasks
• Schedule daily instruction in the booth
• Take every opportunity to allow your trainee to view as many ears as possible
• Always invite trainee in to view an ear that is abnormal in any way
• Use your video otoscope as a training tool
Outer Ear and Disorders of the Outer Ear

**Trainer Instructions:** Listed below are specific topics that need to be taught by the trainer. The trainee must be able to explain the term and/or demonstrate the procedure or comprehension of each specific item listed.

- **Sound transmission through the ear**
  - Acoustic
  - Mechanical
  - Hydraulic
  - Electro-chemical

- **The Outer Ear**
  - The outer ear is important for impression taking
  - Comfort of earmolds and custom hearing instruments are related to the outer ear
  - Pinna gathers sound and directs it to canal

- **Bridge and Brace Technique**
  - Show proper method accepted by your state
  - Bridging in the inferior-posterior section is NOT sufficient for proper bracing

- **Landmarks of a Healthy TM**
  - The umbo
  - Cone of light
  - Manubrium

- **Abnormalities of the External Ear Canal**
  - Atresia
  - Not likely to be our patient. In many cases, treatment would be with a BAHA when pinna is absent or badly deformed
  - Congenital due to the failure of the pinna and/or ear canal to form normally during gestation
  - Patient/Client could have a normally functioning inner ear and hearing nerve
- **Prolapsed or Collapsed Canal**
  - As the ear ages it can lose elasticity resulting in the sagging of the skin in the external canal. The skin is soft and can be pulled aside with an ear light or otoscope.
  - Testing should be done with insert earphones to ensure that the canal remains open.
  - If the canal is collapsed by headphones, you will get the appearance of a greater loss in air conduction scores.

- **Excessive / Impacted Wax**
  - Unable to see a clear view of the TM.
  - The most common cause of conductive hearing loss
  - Requires medical removal before testing

- **Foreign Object**
  - Any object in the ear that is not meant to be there
  - Requires medical referral

- **Bony Exostosis**
  - Usually associated with swimming in cold water
  - A bony nodular appearance of the external ear canal
  - Can range from minimal to an almost full closure of the external canal
  - Requires a medical release to fit as it is an abnormal condition
  - Do not confuse with stenosis (a narrowing of the canal)

- **Any Polyp, such as growths on the canal wall**
  - Medical referral required

- **Otitis Externa**
  - Canal is red and inflamed
  - Can be swollen in appearance
  - Medical referral required
**Perforated TM**
- Perforation can be from trauma, either acoustic or blunt force
- Can vary in size from small to the absence of the total TM
- Medical release is needed as it is an abnormal condition of the ear
- Extra care needs to be taken when making impressions

**Monomeric spot, also known as mirror membrane**
- The result of healed perforation
- Only one of the three layers of the TM heals, thus the prefix “mono”
- OK to fit

**Tympanosclerosis**
- Common appearance of the aging TM
- Chalky-like appearance on the surface of the TM
- Can cause some stiffening and may result in a mixed loss
- OK to fit

**PE Tube**
- Bobbin-like device placed by an ENT to ventilate or drain the middle ear
- Common in children with chronic middle ear infections
- OK to fit with a medical release
- Can cause a small conductive loss

**Cholesteatoma**
- TM will usually have an abnormal color
- Foul odor
- There will be a protrusion of some type
- An abnormal skin growth in the middle ear cavity. Often develops as cysts or pouches that shed layers of old skin. As it increases in size it can destroy the delicate bones of the middle ear leading to hearing loss that surgery can often improve
- Requires immediate medical referral
☐ Physician Referral

☐ State reason for referral and describe why
☐ State only what is seen (do not diagnose)
☐ Include hearing test results if appropriate
☐ Sign referral and ask patient/client to do the same
☐ Explain that written medical clearance must be provided for the hearing instrument sale and fitting

☐ Physician Referral

When a red flag is identified, don’t just encourage the patient/client to see a doctor...you must document the medical referral in writing. Our responsibility is to make a medical referral, without making any diagnostic statements. Use the appropriate terminology to describe the location of anything abnormal.

Remember, state only what you see, such as, “The ear appears to be swollen or red or inflamed,” or “The ear should be looked at by a physician before we proceed.”

If test results are abnormal, you can say, for example, “SRTs are not within expected limits.” You can attach an audiogram, but be certain it is complete.

Keep in mind there are some results of otoscopy or a hearing test that need to be referred without delay. Show your trainee how to emphasize the importance of immediate medical attention without alarming the patient/client.

“Mr. Jones, the results of your hearing test indicate a possible condition that should be evaluated by a family physician, or better yet, by an ENT specialist. Please make the appointment as soon as you can. We may be able to help expedite that appointment if you want us to.”
## Training Tasks:

<table>
<thead>
<tr>
<th>Hours Trained</th>
<th>Trainer Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### Observe Testing Process
- 1 week (5 hours recommended training time)
- Case history, red flags and why we ask
- Otoscopy - standard and video otoscope (Both trainer and trainee look)
- Referral requirements and documentation
- Audiometric exam

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## Outer Ear and Disorders of the Outer Ear

<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>CORRECT</th>
<th>INCORRECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee is to Demonstrate Proficiency in these Tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee has obtained three case history forms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee cleans hands, dons gloves and installs a new speculum on otoscope</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee positions subject for viewing of ear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee uses proper bridge and brace with standard otoscope</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee uses proper bridge and brace with video otoscope, if applicable</td>
<td></td>
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<tr>
<td>Trainee understands referral requirements and knows how to accurately complete a medical referral form and the appropriate internal documentation</td>
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</tbody>
</table>
Evaluate performance in this lesson:

________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________

Specific areas that need more work:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Date for follow up review __/__/____

Go over the assessment with your trainee:

Trainee comments: _______________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Trainer Sign Off: _________________________________________________________ Date__/__/____