Pacific University Oregon

SCHOOL of AUDIOLOGY

SCHOOL OF AUDIOLOGY

Doctor of Audiology (AuD) Degree Program

Student Handbook

Clinical Manual

2015-2016 Edition

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INTRODUCTION

The Clinic

The Pacific EarClinic was formed in 2013, as part of Pacific University's School of Audiology. The clinic is housed in Tuality Medical Plaza and serves patients from Washington County and surrounding metropolitan areas. Pacific EarClinic is staffed by licensed audiologists that provide services both on-campus and in community-based settings. Audiologic services are provided directly by these audiologists as well as doctoral students whom they supervise.

Students

Students of the School of Audiology will gain foundational clinical audiology skills through experiences provided on-campus at the Pacific EarClinic and through unique off-campus experiences. This manual will provide much of the basic information needed to begin a career as a Doctor of Audiology with the greatest ease and minimal confusion possible.

Each student is expected to become familiar with the contents through a thorough review and concluding application in the Pacific EarClinic and all off-campus practicum, internship and externship sites, as appropriate. Having done so, the student should be in position to verifying a record of courses, practicum clock hours and compliance to university, department, division, ASHA, or other applicable licensure or certification requirements. Likewise, the student should easily verify knowledge and skills acquisition associated with academic and clinical courses. Each student is primarily responsible for his/her own professional growth. However, faculty, instructors and/or supervisors will provide instruction, guidance, and direction related to the development of clinical competencies and professional practice ethics.

All students involved in observation or practicum will be enrolled in appropriate coursework and will have completed all prerequisites or enrolled in co-requisites as outlined in the applicable Pacific course catalog.

The contents of this manual are subject to change without prior notification.

Statement of Non-Discrimination

It is the policy of Pacific University not to discriminate on the basis of sex, physical or mental disability, race, color, national origin, sexual orientation, age, religious preference or disabled veteran or Vietnam Era status in admission and access to, or treatment in employment, educational programs or activities as required by Title IX of the Education Amendments of 1972, section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, the Age Discrimination Act, the Americans with Disabilities Act of 1990, or any other classification protected under state or federal law, or city ordinance.

MISSION STATEMENTS

Pacific University

A diverse and sustainable community dedicated to discovery and excellence in teaching, scholarship and practice, Pacific University inspires students to think, care, create, and pursue justice in our world.

College of Health Professions

Pacific University's College of Health Professions is dedicated to preparing leaders in innovative healthcare for a diverse global community.

School of Audiology

The School of Audiology's central mission is to prepare Doctors of Audiology in innovative educational environments that are clinically outstanding, committed to life-long learning, and leaders in their community and profession.

Table of Contents

1. PACIFIC EarCLINIC

CLINIC FACILITIES

Front Office:
The main office is located in Suite 4150. The main office is open from 9:00 am – 5:00pm, Monday and Wednesday, and 8:00am – 3:30pm, Tuesday, Thursday and Friday.

Hearing Aid Lab:
The Hearing Aid Lab is located in room 4186. Patient files may be accessed from computers in the consult rooms or the hearing aid workroom, but should never be left unattended. Students should log out of any software and computer with access to patient protected health information prior to leaving workstation for any reason. Patient information should never leave the building in any form (i.e., paper, electronic storage device, etc.) or be accessed outside of the Pacific EarClinic. Clinical faculty will perform random audits of software to determine when, where and how students are accessing these records.

Patient Waiting Room:
Patient waiting room is located in Suite 4150. Clinical discussions should not take place in patient waiting room. If important information needs to be exchanged with patients/parents, it should be discussed in the privacy of a consult room or test suite.

Hearing Aid Consultation Rooms
Hearing Aid Consultation Rooms are located in rooms 4182, 4183, and 4173. These rooms are used for discussing audiometric test results, hearing aid consultations, fittings, verification and other rehabilitation needs. The computers located in these rooms may also be used to access patient files for report writing purposes when not in use for patient care.

Auditory Brainstem Response Room
Auditory Brainstem Response testing may be done in room 4184 or in either soundbooth; room will be determined by how space is scheduled for the day.

Vestibular Consultation Room
Vestibular testing and consultation is completed in room 4184.

Audiometric Testing Suites
Audiometric testing suites are located in rooms 4171 and 4172. These suites are used for all audiometric evaluation testing including otoscopy, immittance testing, speech audiometry and pure tone audiometry. The computers located in these rooms may also be used to access patient files for report writing purposes when not in use for patient care.

Copying Policy
There is a copy machine in the front office reception area. This copier is to be used for making copies of clinic materials ONLY (i.e. report or education materials for patient). Personal copies of your materials/other coursework, etc. need to be copied at other locations.

Telephone
There are several telephones available for students to make local as well as long distance calls to patients. Campus telephone calls may be made by dialing the last 4 digits of the phone number. All other calls can be made by dialing 9 followed by the phone number. Unauthorized long distance phone calls are not allowed.

Handicap Access
Pacific EarClinic is accessible to handicapped individuals. The ground floor of Tuality Seventh Avenue Medical Plaza is level with the sidewalk or parking lot for all entry/exit ways. An elevator is located in the lobby of the building. Consultation room, audiometric testing suites and restrooms in the clinic are wheelchair accessible.

Patient Parking
Tuality Seventh Avenue Medical Plaza has covered parking at the back entry to the building and on the adjacent surface lot. Both lots have several handicapped spots as well.

Emergencies & evacuation

Emergency evacuation may be necessary as a result of injuries/accidents, bomb threats, severe weather, fire, behavioral disturbance, chemical release, gas leak, etc. *Emergency Action Plan for the PacificEar Clinic* (Appendix A) provides detailed procedures for evacuation. For the convenience of service providers and safety of all individuals accessing its clinical space, copies of this document are housed within the front office of the Pacific EarClinic. Students, supervisors, faculty and staff will be provided annual practice opportunities relative to the above named emergency evacuation procedures.

The following guidelines are offered in a good faith effort to assist in keeping occupants of the Pacific EarClinic safe in the event of unusual or emergency circumstances:

a. In the event of injuries/accidents involving patients, students, supervisors, faculty, support staff, or visitors to the Pacific EarClinic, immediately notify Pacific EarClinic administration or staff and/or Tuality and Pacific University Public Safety and the director of the School of Audiology. Be prepared to give a brief but detailed account of the injury or accident along with any pertinent individual health information or history. If appropriate, call 911.

b. In the event of a bomb threat, the individual receiving the call should remain calm. Tuality and Pacific University public safety and the director of the School of Audiology should be notified of the bomb threat and the information provided by the caller. If appropriate, call 911.

c. In the event a severe weather or tornado warning is issued for the Hillsboro area, take all patients to the designated tornado or storm area for the building. Patients should remain with faculty, supervisors, or staff until officially released by Public Safety officials. Do not use the elevator. (Note: Elevators are provided with limited emergency power in the event their use is necessary for the emergency transport or evacuation of physically disabled individuals. If at all possible, every effort should be made to assist disabled individuals using an alternate system of transport to the lowest level of the building.)

d. In the event of fire, call 911. Acknowledge that children, elderly, and disabled persons may be in the building. All clinical supervisors, faculty, and support staff present are responsible for ensuring safe, expedient, and complete evacuation of the building. All patient rooms, diagnostic areas, offices, and bathrooms should be checked for occupants. Evacuation should proceed through the nearest exit. Audiology faculty, staff, students and patients should gather at the West entrance to the building and remain in this location until re-entry into the building is announced. Students and supervisors must remain with the assigned patient. Do not take the elevator until cleared for use by the fire department. A Pacific EarClinic administrator/staff designee and the director of the School of Audiology should meet the fire department and request release of the elevator to evacuate disabled or physically challenged patients from the fourth floor.

e. Become familiar with the locations of the fire alarms and the fire extinguishers.

Fire extinguishers are 2 hallway extinguishers and 4 within Audiology spaces for 6 total (see evacuation maps in Appendix A).

The fire alarms are located in the clinic at both ends of the hall and in the hearing aid workroom.

Other possible but less likely emergency situations require similar but different procedures be implemented. The Pacific University emergency plan provides specific instructions for a number of situations. This plan may be viewed on-line at http://www.pacificu.edu/sites/default/files/documents/EmergencyOperationsPlan2011.pdf.

2. PROFESSIONALISM & RESPONSIBILITY

1. Professionalism

"Professionalism" refers to your behavior as a health care professional, your methods used when working with colleagues and patients, your interpersonal communication skills, your professional standards, and your character as perceived by others. This includes your sense of ethics, appearance, communication style, and general behavior in your role as a student and audiologist both on and off campus.

2. Responsibility

"Responsibility" refers to your involvement in important clinical and academic duties and your professional obligations. Your sense of responsibility is the cause behind all your professional actions, and is reflected by your dependability, reliability, and trustworthiness.

Students are required to sign a contractual agreement to uphold the standards of academic and professional behavior and responsibility set by the Pacific University AuD Program. All AuD students, clinic staff and faculty members are expected to abide by the policies and procedures described in this and subsequent documents which set forth the standards of excellence for the Pacific EarClinic.

3. Fundamental Responsibility of Students

Students must not do anything to jeopardize the certification or licensure of their clinical supervisors, or the accreditation of the Clinic.

a. All significant actions must be approved by the supervisor before the patient leaves the appointment. Clinical phone calls must be made only with supervisor permission.

b. All official documents must be co-signed by the supervisor before any records are mailed out or retired.

All clinical decisions and actions carried out by Pacific EarClinic faculty and student personnel must reflect the highest standards of clinical excellence and cooperation, and have the tacit approval of the Clinical Education Team.

a. Any decisions or actions affecting Pacific EarClinic Policies, clinical equipment and supplies, clinical forms, letters to patients and outside agencies, off campus intern/externships, Pacific University sponsored audiology research carried out at other facilities, and contracts with contractual practicum sites must have the express approval of the Clinical Education Team before they can be implemented.

b. No hardware may be added, nor software loaded, onto Pacific EarClinic computer equipment.

4. Code of Ethics

All audiologists and students are expected to act in accordance with the Code of Ethics of the American Academy of Audiology (AAA) and the American Speech-Language-Hearing Association (ASHA) (see Appendix C), and the State of Oregon Audiology and hearing aid dispensing guidelines.

5. Confidentiality

All persons working or observing in the clinic or its off-campus practicum, internship and externship sites need to be aware of every patient's right to privacy and confidentiality. Verbal, gestural, and written communication must be closely monitored to ensure patients' rights are protected. Persons providing clinical services in the capacity of Pacific University students or faculty members are required to undergo Pacific University's HIPAA training prior to working in the Clinic. Persons observing Pacific University students and faculty members

working in the Pacific EarClinic or Pacific University's affiliated off-campus practicum, internship, and externship sites must abide by all pertinent HIPAA privacy and security guidelines, as well as state laws and pertinent site policies and procedures.

Confidentiality may be violated easily in the university setting for two principal reasons: (a) Much of the learning at the university level occurs as individuals share information and experiences with each other. (b) Persons not directly involved with service delivery (E.g.: undergraduate practicum students) frequently observe patients receiving services. The following guidelines are designed to help ensure patient confidentiality rules are maintained:

a. Do not invite friends, family members or any other non-HIPAA certified individuals into clinic during normal business hours.
c. Do not discuss your patient's case in public areas.
d. Do not discuss your patient by name, except with your clinical supervisor/preceptor, clinic staff, or as absolutely necessary during clinic meetings.
e. If you present information about your patient during class, refer to her/him as "my patient/patient," not by name. Delete patients' identification from test results before using them as overheads or handouts.
f. Do not leave reports, lesson plans, or other written information containing any identifiable patient information unattended or in patient care areas where patients can read them.
g. Follow all office rules regarding checking out and returning patient files/disks and reports.
h. Never take patient files, videotapes, jump drives or disks out of the building, and do not remove or photocopy information from them.
i. Do not discuss your patient with other professionals or persons in other agencies unless your patient has authorized the release of information and your supervisor has approved the communication.
j. Follow all Clinic rules regarding release of information to all other agencies or professionals.
k. Remind your observers that they must respect confidentiality.
l. Patients have the right to refuse to have observers other than the primary student(s) and their clinical supervisor. No one should observe patients without patient consent.
m. Any non-patient visitors must sign-in at the Front Desk or in a binder in booths (for volunteers accompanying students).

The nature of university training programs requires some relaxation of the rules for patient confidentiality. Students constantly observe assessment and treatment sessions. Consequently, the clinical services offered to individuals through the university are less confidential than those offered in private clinics. This is acceptable as long as the patient has given informed consent for being observed. Check the patient's **Informed Consent** form to ensure that you are abiding by the patient's or guardian's preferences for use of clinical information.

References:
Refer to the materials provided during your School of Audiology HIPAA Privacy and Security training and subsequent HIPAA updates for further information. Similar policies, procedures and guidelines re: the privacy and security of patient information should be respectfully requested by students from internship and externship sites not part of the initial orientation of student interns.

Note: All health care practices should have guidelines, policies, and procedures available regarding the confidentiality and security of patient information. HIPAA regulations, however, apply only to those health care providers (and their business associates) who are engaged in electronic billing for goods or services.

6. Professional Language

Students are required to adhere to the following guidelines:

a. Keep noise levels in the Pacific EarClinic and surrounding areas at a minimum.
b. Demonstrate respect for patients and their significant others at all times.

c. Language must reflect cultural sensitivity and maintain a positive clinical environment at all times.
d. Refer to adult patients (≥ 18 years) by their last name both in person and in reports. If adult patients have given you permission to use their first names, you may do so judiciously when in person, but do not use their first names in the report.
e. Refer to supervisors as Ms., Mrs., Mr., or Dr.
f. Cursing in or near the Pacific EarClinic is forbidden. If you are upset about something, please keep your comments out of earshot of any patients or family members. In addition to cursing, comments involving religious exclamations, racial, or ethnic slurs, personal slander or sexual innuendo are also forbidden and will not be tolerated.
g. Practice attentive listening. Try not to interrupt patients or to "put words in their mouths."
h. Avoid using language that assumes knowledge of a patient's emotional state. (E.g. "The patient suffers from diabetes." "The patient fears that his hearing has worsened." "The patient was upset that her hearing aid was not working.") Instead, quote the patient whenever possible or describe observable behavior. (E.g. "The patient indicated she has diabetes." "The patient reported concern that his hearing may have worsened." "The patient said she was upset that her hearing aid was not working.")
i. When counseling, observe listeners for their attention and apparent comprehension. Adjust counseling accordingly or repeat or paraphrase important information when necessary.

7. Dress Code

Audiologists and students represent Pacific EarClinic as well as the profession of Audiology. Dress and appearance should reflect the high standards of service established by this school, the Pacific EarClinic, and the University. The following guidelines apply to all persons working or observing in the Pacific EarClinic and the majority of its off campus sites.

CLOTHING

Students must wear their name-tag and labcoat at all times. Clothing must be neat, clean, and suitable for the job, presenting a professional appearance. Dress and skirt length and style must be appropriate for daytime wear. Very short skirts and mini-skirts are not appropriate. Skirt lengths should not be more than two inches above the knee. Full-length skirts and hats are discouraged unless required for religious purposes. Clothing should not be extremely tight, have revealing necklines, or midriffs. Blue jeans and corduroy jeans are not allowed unless indicated by the job or department activity. T-shirts and sweatshirts are not permitted. Pants and slacks must standard length (not capri, ankle or crop) and not be so long that they drag on the floor. Shorts, leggings and short split skirts/skorts are inappropriate. Nametags should be worn at all times. Men should ideally wear shirts with ties, but oxford shirts worn under a vest or sweater are permitted, and turtleneck sweaters will be permitted. Suit coats for men are optional. Women should ideally avoid sleeveless tops, but sleeveless dresses and tops with wide (E.g. 2 ½ to 3 inch) shoulders will be permitted. Low necklines and loose necklines that are overly revealing when you bend forward are not permitted. Low midriffs must not be visible at any time. Tops must be long enough to allow bending and reaching without a visible waist or midriff.

When scheduled to see pediatric patients, attire should be professional, but comfortable. Audiologists and students should be able to kneel or sit comfortably on the floor, if needed, without worrying about skirts or tops being overly revealing. Slacks and crewneck tops are recommended when working with this or similar populations.

HAIR

Hair is to be kept neat, combed and clean. Beards and mustaches must be clean and neatly trimmed, and preferably closely cropped so that they do not interfere with speech-reading. Hair bands or scarves are allowed for the purpose of securing hair up and back. Hairstyles, scarves, and facial hair should not prevent or distract from a patient's ability to speechread audiologists and students.

SHOES & HOSIERY

Safety and quietness should be used as guidelines for choice of footwear. Shoes should be clean and appropriate for daytime wear. No open toe shoes are allowed. Heavy boots, clogs, moccasins, or sneakers

are not permitted. High heels should be of reasonable height (< 1 ½ inches high) to remain safe and comfortable. Ankle boots are inappropriate with dresses or skirts. Sandals and flip-flops are not allowed. Bare feet are not permitted.

MAKE-UP, NAIL POLISH, & COLOGNE

Make-up, wigs, and nail polish must be of a conservative, daytime style that is not distracting. Artificial nail should not be worn. Natural nails should be kept to a clean and appropriate length (less than ¼ inch) per CDC guidelines. Many persons are sensitive or allergic to colognes; scents should be avoided.

JEWELRY

Safety should be kept in mind when selecting jewelry. Earrings, bracelets, and necklaces should not hang loose where they can become caught and hurt the wearer, make noise, or damage equipment. Rings may be worn if they are kept clean and do not create a safety hazard for the wearer or the patient. If you take off jewelry during appointments, remember to put it back on before you leave the room. The Pacific EarClinic is not liable for lost possessions, such as lost or damaged jewelry. Visible facial piercings must be removed and facial or obvious tattoos are not permitted and should be covered. Visible piercings and tattoos may be addressed on an individual basis with the student.

OFF CAMPUS SITES

Dress code varies for off campus sites. Audiologists and students should dress professionally, but comfortably, for sites that require carrying equipment repeatedly to and from the car. Further details on dress code are available from off campus supervisors.

CELL PHONES

Students are permitted to carry concealed cell phones while seeing patients for emergencies only. They should stay out of sight for the entire duration of the clinical experience except when leaving the clinic area for a break/lunch – i.e., the student should not be checking messages in the clinic area in-between patients. If cell phones are taken out or ring during clinic, students will be disciplined up to and including failure of clinical practicum.

DRESS CODE

Students who fail to abide by the dress code can be sent home to change clothing at the discretion of their clinical supervisor.

8. Attendance & Punctuality

Attendance at all scheduled appointment times is required as part of the clinical practicum in audiology (See Grading Policies supplied with syllabus).

EXCUSED ABSENCE

If a student is ill, the instructor of record and supervisor on duty must be notified as early as possible, and a decision will be made regarding what is to be done. Students are expected to attempt to find a replacement student. Illness or injury longer than 3 days requires a physician's statement. Frequent absences due to illness may require a physician's explanation statement.

EXCHANGING CLINIC ASSIGNMENTS

Switching an assigned clinic day requires written notification and approval from the instructor of record at least one week in advance of the change. The students involved must arrange an equitable trade of clinic coverage. The Pacific EarClinic office staff will be notified of the change by the instructor of record or supervisor.

UNEXCUSED ABSENCE

No unexcused absences are allowed. Any pattern of absence or lateness may result in a failed practicum. See the Grading Policies.

PUNCTUALITY & PREPARATION TIME

Students should arrive at least 30 minutes before the start of clinic to set up booths, complete equipment checks, and discuss the day's clinical needs with the supervisor. In some cases, supervisors may require more prep time to review cases for the day before appointments (E.g. for difficult hearing instrument fittings, APD, or sleep-deprived ABR appointments).

OFF-CAMPUS CLINIC ASSIGNMENTS

During the first year, students may be assigned to off-campus clinical sites for summer practicum at the instructor's discretion. During the second year, students will be assigned to off-campus clinical sites for two nine-week and one six-week internships. Off-campus sites routinely used for Pacific University audiology student placements are located across the country and internationally. Transportation costs to off-campus clinical placement sites are the student's responsibility. These off-campus placements greatly enhance student's clinical knowledge and skills by providing opportunities to learn from audiologists with many years of clinical experience.

In order to prepare for off-campus clinic assignments, students will be provided off-campus supervisor contact information at least one week prior to the start of clinic. Students are expected to contact their off-campus supervisors one week prior to the first day of clinic. The need to meet with students prior to the start of clinic will be determined by each supervisor.

The third year 12 month externship may also require transportation from the students' residence to the audiologic facility. Students are expected to be responsible for transportation requirements and associated costs.

9. Protocol for Interpersonal Communication

FACULTY/STAFF-STUDENT RELATIONSHIP

The Audiology faculty and staff strive to maintain a cordial "open door" policy with respect to their work with students. They also desire the development over time of a collegial relationship with students. AuD students are expected to demonstrate a strong commitment to the profession and life-long learning. It is understood that the collegial relationship must evolve over the 3-year span of the program. The initial relationship is a formal one of instructor-student. Later this evolves into one of mentor-student. The colleague-colleague relationship is not to be adopted until students near graduation. While striving toward becoming a professional, students should recall that they are still students and they must observe instructor-student social protocols.

Use tact when asking supervisors for information or advice. If you want to try a new or different clinical procedure, request approval from your supervisor. Avoid communication styles that can appear defensive, argumentative, or domineering. If you do not understand why your supervisor/preceptor suggested one procedure over another, ask the supervisor what the advantages are. Save your questions until an appropriate time when you are not with the patient. (If time permits, you may want to use two procedures to obtain the same piece of information, and then compare them for yourself.)

Treat off campus internship/externship preceptors with extreme respect. Be especially tactful in your requests for information. Some off campus supervisors will expect you to adopt a much more formal communication style than that used elsewhere. Remember that a positive experience with you will pave the way for valuable internships/externships for other Pacific University students. It may also help you obtain a good recommendation later. If you do not agree with a procedure you see or are told to perform at an internship/externship, do not argue about it or question it in a confrontational style. Tactfully ask to have the procedure explained, and/or call your instructor of record and discuss your concern.

AUDIOLOGIST/STUDENT-PATIENT RELATIONSHIP

The audiologist/student-patient relationship should be professional, cordial, and respectful. Audiologists and students are expected to maintain confidentiality at all times, listen attentively, and avoid becoming personally involved in a patient's life. Audiologists and students should follow the patient's lead with respect to familiarity. Do not become overly familiar with patients; maintain an appropriate professional distance. You may be friendly and joke with patients, but do not joke with patients until they have begun to do so with you. Avoid comments or jokes relating to personal health issues unrelated to hearing or audiologic rehabilitation. Also avoid comments or jokes regarding religion, race, politics, or sex. If patients begin to converse about these topics, you will need to steer the conversation back to appropriate topics. Consult your supervisor, if needed.

HARASSMENT ISSUES

Sexual harassment is illegal. Pacific University has procedures in place for protecting you from compromising situations involving either gender or racial harassment. If a patient or anyone else verbally or physically harasses you, discuss the matter as soon as possible with your supervisor. Problems of this nature which are instigated by a patient should be indicated in the contact notes, but not the report; a notation will be highlighted stating that the patient is only to be seen in the future by someone whom the patient is unlikely to harass.

10. Externship, and post-graduation employment interviews

INTERVIEWS

When communicating with persons at off campus sites where you are seeking an externship or post-graduation employment, be honest about your credentials, experience, expectations, and plans. Whenever possible have a telephone interview before going to the site. Learn as much as is reasonable about the site before scheduling a live interview. (E.g.: Check the site's web site. Check the ASHA and AAA websites to determine whether they are members and have certification.) Do not arrange an interview if not seriously interested in a position. Be careful not to misrepresent yourself. (E.g.: Do not say that you definitely want to take the position when you are actually undecided.) Do not misrepresent Pacific University. (E.g.: Do not say that you are free to take an internship or externship position when in fact the position has not yet been approved by the appropriate persons at Pacific University.)

CONTRACTS

Do not sign any employment agreements or contracts for externship positions until receiving approval from the Externship Coordinator at Pacific University for the particular externship position. Remember that affiliation agreements must be drawn up and signed by the appropriate parties at the externship/residency site and Pacific University before you can begin your clinical work there. Allow plenty of time for these agreements to be arranged; this may take several months for major medical centers. Do not sign any agreements that include promises to sell X number of hearing aids or X dollars per month or per year worth of merchandise. Pacific University does not allow you to accept commission-based externships. Avoid signing contracts with non-competition clauses for externship sites.

WRITTEN COMMUNICATION

Be completely truthful in resumes and cover letters. Send a thank you letter after each interview to express appreciation for the interviewer's time and interest. Be very formal in Email communications. Make sure you use an Email address with an appropriately formal name. E.g.: An Email address such as smith2na@pacificu.edu would be fine, but one such as hotchick@aol.com would be inappropriate.
You should use your Pacific email address for all communication, and the Externship Coordinator should be copied on appropriate communication.

STIPEND

The provision of a stipend for student externs is felt to be appropriate by some, but inappropriate by many other persons at prospective externship sites. Be aware that in some states, due to licensure or third party reimbursement regulations, it is not possible to bill for services provided by students in many instances. In those facilities, it may be impossible to pay student externs. Students should be more concerned with getting a wide variety of high quality clinical experiences. Be extremely cautious about how you inquire about pay. Requesting or demanding a stipend judged by Human Resources at the site to be too high may cause you to lose a valuable clinical experience opportunity, and may also alienate those at the site so that other students from Pacific University will lose future opportunities there. Pacific University does not support excessive stipends that may cause the student to be perceived more as an employee than a student.

11. Involvement & Motivation

All students are expected to take an active interest in clinical cases, whether leading the appointment, assisting, or observing. The quality and extent of clinical involvement are taken into consideration in the clinical practicum grading process.

ACTIVE PARTICIPATION DURING OBSERVATION

Observers should be unobtrusive, but attentive during all portions of the appointment. Observers should take notes on the procedures and materials used, and try to determine for themselves why these may have been chosen. Observers may ask questions of the lead students or supervisor when appropriate to do so without distracting them unduly from the case. Observers may be asked to complete audiograms, find special forms or tests, or assist when possible with procedures (E.g.: WIPI, listening checks).

PROVIDING DIRECT SERVICE

When seeing your own clinical cases, students are expected to do the following:

a. Discuss cases with supervisors before patient arrival and at the end of the clinic day.
b. Check the accuracy and completeness of your own work.
c. Edit and spell check your own reports before giving them to supervisors.
d. Follow through to meet the needs of special cases.
e. Share information & experiences with other students and observers.
f. Inform supervisors when patients have arrived and before patients leave.

g. Check results, recommendations, ear impressions, hearing aid changes, etc…, with the supervisor before patients leave.

EMAIL

All students are required to maintain a Pacific University email account at all times and check it regularly (i.e., at least once per week) for messages and assignments relating to your courses. Students are also required to check their on-campus mailboxes daily. Pacific University policy requires students to use Pacific University email accounts; Pacific University faculty and staff members are not allowed to use any student email addresses other than the Pacific University email address, according to university policy. If using another personal email system (Eg: AOL, Yahoo, Hotmail), students are responsible for forwarding their Pacific University email appropriately. Clinical information regarding individually identifiable patients/patients is NOT to be sent by email or any other means, in compliance with all state and federal laws relating to the privacy and security of patient information (Eg: HIPAA, FERPA).

Social Media

Students will not post any reference to or details of any aspect of a clinical experience concerning patients, colleagues, supervisors, clinic staff, etc. on any social media forum. Failure to comply with this will result in disciplinary action, up to and including dismissal from the program.

12. Cultural Sensitivity

Sensitivity to cultural differences must be maintained with respect to age, gender, race, sexual orientation and identity, and religion. All audiologists and students must be attentive to and respectful of cultural differences between themselves, patients, and colleagues. Written, verbal, and body language should be monitored with respect to creating a positive clinical environment and avoiding cultural conflict.

In addition to referring to ethnic and other cultures, “culture” may also refer to types of social situations and environments. Social rules for communicating with friends or Pacific University faculty for example, may be very different from the social rules used when communicating with professionals at internship sites.

Seminar, SIMLab, special assignments, and clinical experiences at Pacific University and intern/externship sites are designed to allow students to practice social skills for effective communication in a variety of settings. Professional behavior appropriate to the given social situation is expected of students on campus, at internship sites, and at conventions & workshops. Your professional behavior affects how others in the local community and the wider professional community see Pacific University. It is assumed throughout Pacific University that every effort will be made to demonstrate respect for cultural and linguistic differences.

13. Reporting Problems

Grade Grievance and Sexual Harassment Policies

All AuD students are referred to the undergraduate and graduate catalogs for an outline of the university grade grievance and sexual harassment policies.

Clinical Concerns or Conflicts

In some cases, a student may disagree with a faculty member or clinical educator to the extent that the situation warrants communication and action to reach an optimal resolution. The following policies and procedures have been established to guide the students and clinical faculty members:

1. Students are encouraged to meet with the specific faculty member or clinical educator who is directly involved in the situation. The parties will discuss the concern and attempt to come to an agreement of the appropriate way to handle the situation. The student and/or faculty member or clinical educator may invite the clinical education coordinator to this meeting, as appropriate to the situation.
2. If the issues are not able to be resolved at this level, the student should meet with the clinical education coordinator, as appropriate to the situation, to share the concerns and attempt to come to an agreement of the appropriate way to resolve the situation.

3. In situations that are not resolved satisfactorily following the meeting with the clinical education coordinator, a student may meet with the Director of the School of Audiology.

4. Students have the option to appeal any decisions made by the Director of the School of Audiology and/or the faculty and clinical educators of the School of Audiology by following the Appeals Procedures of the College of Health Professions.

Accreditation Violations
In the event that a student has a complaint concerning possible violation of the accreditation standards in the School of Audiology at Pacific University, the student may submit the signed complaint in writing to:
Chair, Council on Academic Accreditation in Audiology and Speech-Language Pathology
American Speech-Language-Hearing Association
2200 Research Boulevard, #310
Rockville, MD 20850

Written sequential instructions for filing a grievance with ASHA against an accredited program can be found at http://www.asha.org/academic/accreditation/accredmanual/section8.htm.

14. Background Checks, immunizations and other required student trainings

Training	Period Completed	Description
Background Check	Prior to Orientation, ONE TIME	(a) Name and address history trace; (b) Verification that the students' records have been correctly identified, using date of birth and a Social Security number trace; (c) A local criminal records check, including city and county records for the student's places of residence for the last seven years; (d) A nationwide multijurisdictional criminal database search, including state and federal records; (e) A nationwide sex offender registry search; (f) A query with the Office of the Inspector General's List of Excluded Individuals/Entities (LEIE); (g) The name and contact information of the vendor who completed the records check; (h) Arrest, warrant and conviction data, including but not limited to: (A) Charges; (B) Jurisdictions; and (C) Date. (i) Sources for data included in the report.
Drug Screening	Prior to Orientation, ONE TIME, AS NEEDED	Substance Abuse: 10-panel drug screen including amphetamines, methamphetamine, barbiturates, benzodiazepines, cocaine, marijuana, methadone, opiates, phencyclidine
OIG Exclusion List	During first two weeks, ONE TIME	Office of Inspector General U.S. Department of Health & Human Services, searches for health and human service claims against individuals (OIG LEIE check)
Immunizations	During first two weeks, ONE TIME	(a) Hepatitis B (b) Measles, Mumps, Rubella (MMR) (c) Tetanus, Diphtheria, Pertussis (T dap) (d) Varicella (e) Tuberculosis (Tb)
HIPAA	Prior to Orientation, ANNUALLY	Protected Health Information (PHI). The HIPAA privacy regulation provides that individually identifiable information about a person's physical or mental health or health care (in any written or oral form) – including computer records– is protected from unauthorized disclosure.
Bloodborne Pathogen	Prior to Orientation, ONE TIME	OSHA training on pathogenic microorganisms that are present in human blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
BLS/CPR Certification	During first two weeks, BI-ANNUALLY	Basic First Aid and CPR Training
Fire & Electrical Safety	During first two weeks, ONE TIME	OSHA's electrical standards address the government's concern that electricity has long been recognized as a serious workplace hazard, exposing employees to such dangers as electric shock, electrocution, fires and explosions. The objective of the standards is to minimize such potential hazards by specifying *design* characteristics of safety in use of electrical equipment and systems.
Hazard Communications	Prior to Orientation, ONE TIME	OSHA ensures that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees. The requirements of this section are intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 3. The transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, safety data sheets and employee training.
Personal Protective Equipment	Prior to Orientation, ONE TIME	Hazards exist in every workplace in many different forms: sharp edges, falling objects, flying sparks, chemicals, noise and a myriad of other potentially dangerous situations. The Occupational Safety and Health Administration (OSHA) requires that employers protect their employees from workplace hazards that can cause injury.

Infections Preventions	During first two weeks, ONE TIME	Healthcare workers (HCWs) are occupationally exposed to a variety of infectious diseases during the performance of their duties. The diversity among HCWs and their workplaces makes occupational exposure to infectious diseases especially challenging.

Criminal Background Check (CBC) Guidelines

Students who are admitted into the doctoral audiology program in the School of Audiology (SOA) at Pacific University must pass a nationwide criminal background check (CBC) prior to the start of classes in the fall semester. CBC results are acceptable up to three months prior to the start of classes. This is in compliance with OAR 409-030.

Students must order a CBC through CertifiedBackground.com using the package code provided by the SOA's clinical education specialist. Some clinical sites that are not covered by OAR 409-030 may require students to complete an additional site-specific CBC prior to a clinical rotation at that site. In addition, subsequent criminal background checks may be required for cause or at re-entry into the program from which the student has taken leave or fallen out of progression. Timely completion of any required CBC is essential for uninterrupted continuance in the program. All CBC costs are the student's responsibility.

The CBC results from CertifiedBackground.com are available to the SOA's clinical education specialist through a secure portal. Once the background check is complete, the clinical education specialist will email the student the SOA's Screening & Immunization Clearance Form if there is a clean CBC record. It is the student's responsibility to complete the Screening & Immunization Clearance Form and upload it to CALIPSO (the web-based clinical education management program utilized by the SOA). With your consent, CBC results will be presented to a clinical facility or site which requests such verification. Failure to authorize release of CBC information to the requesting site will prevent participation in direct service delivery at that site and may result in a delay in the program of study.

All positive findings on a CBC, regardless of the nature of the findings, will be brought to the attention of the director of the School of Audiology. In addition, students are responsible for disclosing to the director of the school any subsequent infractions which appear on a CBC during the duration of the program. Any student who has a positive finding on a CBC, regardless of the nature of the finding, must schedule an appointment with the director of the School of Audiology to review the CBC results and determine implications, if any, for matriculation into or continuance in the program. The director may consult with the SOA's Clinical Education Team Lead, the SOA's Academic and Professional Standards Committee (APSC), the Office of the Dean of Students, and/or other pertinent university personnel regarding the CBC results as needed.

Failure to complete and pass a CBC, upload a Screening & Immunization Clearance Form, or to disclose subsequent infractions could result in suspension from a clinical site, delay of program, and/or dismissal from the program. All disciplinary actions will be made by the director of the School of Audiology and/or the SOA's APSC, as appropriate. Please note that certain criminal convictions may preclude clinical placements at some facilities, which may impact a student's ability to complete the program, and may preclude obtaining licensure as an audiologist after graduation.

For any questions regarding this policy, please contact the director of the School of Audiology.

Immunizations

Students must provide all immunization documentation upon admission to the school and immunizations must remain current while enrolled. Students are required to upload the Screening & Immunization Clearance Form to CALIPSO. The school requires the students to provide verification of the immunization status to their assigned clinical site when requested. The School of Audiology and the College of Health Professions have a list of immunizations requirements for the Program: (a) Hepatitus B, (b) Measles, Mumps, Rubella (MMR), (c) Tetanus, Diptheria, Pertussis (Tdap), (d) Varicella, (e) Hepatitus A, and (f) Tuberculosis (Tb).

Students are advised that each clinical site may have MORE stringent requirements than those required by the school.

Drug Testing Guidelines

Students who matriculate into the doctoral audiology program in the School of Audiology (SOA) at Pacific University must pass drug testing before placement at any clinical site, including at the SOA's on-site Pacific

EarClinic. This policy is in accordance with Oregon Administrative Rule (OAR) 409-030 which mandates the credentials students must obtain for placements in clinical training settings and the requirements that clinical placement sites may set. *[An Oregon Administrative Rule is a compilation of rules and regulations having the force of law in the state of Oregon.]*

Drug testing may be completed up to three months prior to the first day of orientation for newly admitted students for the fall semester. The orientation date will be posted to the SOA's New Student Orientation Moodle; students may also confirm the orientation date with the SOA's manager of administrative services. Clinical placements begin within a few weeks of the first semester in the program so timely completion of a passed drug screen is essential for uninterrupted continuance in the program – do NOT delay!

Drug Testing Requirements:

Students may order a 10-panel drug test through CertifiedBackground.com or another lab in their area. Per OAR 409-030-0210, the test must include checks for the following eight prohibited substances:

1. Amphetamines (including methamphetamines)
2. Barbiturates
3. Benzodiazepines
4. Cocaine
5. Marijuana
6. Methadone
7. Opiates
8. Phencyclidine

Note that marijuana use, although legal under certain conditions in some states, is illegal under federal law and is included in the list of prohibited substances under OAR 409-030-0210.

Some clinical sites, including sites outside of Oregon, may require students to complete an additional site-specific drug screen prior to a clinical rotation at that site.

Costs:

All drug screen costs are the student's responsibility.

Drug Testing Results and Consequences:

The drug test results from CertifiedBackground.com are available to the SOA's clinical education specialist through a secure portal. If a student uses another lab for the drug test, the test results must be sent directly from the lab to the clinical education specialist. The clinical education specialist will notify the SOA's clinical education team lead of all failed drug testing.

- If a student passes the initial drug test, the student may proceed with any assigned clinical placement(s), pending satisfactory completion of any additional requirements for clinical placement by the school and/or the clinical site.
    - Once the drug test is completed and passed, along with the required background check and immunizations (which are sent to Pacific University's Student Health Center), the SOA's clinical education specialist will complete and upload the SOA's Screening & Immunization Clearance Form to CALIPSO (the web-based clinical education management program utilized by the SOA).
- If a student fails the initial drug test, the student will be immediately suspended from any and all clinical placements and must complete a drug re-test, utilizing the same 10-panel drug test as was done for the failed drug test, within eight weeks of the failed drug test.
    - Note that a negative-dilute or dilute-negative test is considered a failed drug test.
- If the student passes the drug re-test, the student may be eligible to return to clinical placement pending review by the SOA's clinical education team lead and satisfactory completion of any additional requirements for clinical placement by the school and/or the clinical site.
    - Note that the length of time that a student is suspended from clinical placements while waiting on a passed drug test may impact the timely completion of clinical assignments and may result in a grade of No Pass (N) for the enrolled clinical course and/or a longer program of study.

- If the student fails the drug re-test, the student will remain suspended from any and all clinical placements, will receive a grade of No Pass (N) for the enrolled clinical courses, and will be referred to the SOA's Academic and Professional Standards Committee (APSC) for review for academic consequences up to and including dismissal from the program.
- If the student fails a subsequent drug re-test for any clinical site during the program, the student will be immediately suspended from any and all clinical placements and will be referred to the APSC for review for academic consequences up to and including dismissal from the program.
    - Note that the length of time that a student is suspended from clinical placements while waiting on a decision of the APSC may impact the timely completion of clinical assignments and may result in a grade of No Pass (N) for the enrolled clinical course and/or a longer program of study.

Medications and Foods:

Some medications, including prescribed and over-the-counter medications, and some foods can trigger positive drug test results. Examples of these include but are not limited to:

- Phenylpropanolamine (e.g., Dexatrim) and non-steroidal anti-inflammatory medications such as ibuprofen (e.g., Advil) and naproxen (e.g., Aleve) can test positive for tetrahydrocannabinol (i.e., THC, related to cannabis) and methamphetamine (e.g., Ecstasy).
- Pseudoephedrine and levomethamphetamine (e.g., Vicks Inhaler) can test positive for amphetamines.
- Fluoroquinolones (e.g., Cipro) can test positive for barbiturates.
- Dextromethorphan (e.g., cough syrup DM) can test positive for phencyclidine.

Certain foods can also test positive for drugs. Examples of these include but are not limited to:

- Poppy seeds, including those found on bagels, muffins, and other breads, can test positive for opiates.
- Quinine in tonic water can test positive for barbiturates.

Other medications and foods may also trigger positive drug test results. Unless the student is directed otherwise by his/her primary healthcare provider, the student should avoid medications and foods which may trigger positive drug test results for at least 72 hours or longer prior to the drug test. Please note that some substances can remain in the system for much longer; for example, cannabis (e.g., marijuana) is known to remain in the body for up to 4 weeks or more, and benzodiazapine (e.g., Halcion, Valium, Xanax) is known to remain in the body for up to 6 weeks or more.

If a student is on a prescribed medication that may cause a positive drug test (e.g., Adderall or Concerta), the student should not stop that medication unless directed to do so by his/her primary healthcare provider. If the student provides the SOA's clinical education specialist with appropriate and verified documentation from the student's primary healthcare provider, any related drug findings will NOT be reported as a positive drug test. If the student fails to provide appropriate and verified documentation from his/her primary healthcare provider, any related drug findings will be considered a failed drug test.

15. Liability Insurance: Clinical sites may require a student to have liability insurance coverage. The following coverage is maintained by Pacific University for employees and students. Students are covered under this policy if they are participating in a clinical experience that is part of their program of study at Pacific University, including the practicum assignments, clinical internships, and clinical externships of the AuD program. Students may choose to purchase additional liability insurance.

COVERAGE	LIMITS OF LIABILITY
Professional Liability	$1,000,000 per occurrence
Including Staff and Students	$3,000,000 per year
General Liability	$1,000,000 per occurrence
Premises	$3,000,000 per year
Auto Non-Owned & Hired Liability	$1,000,000 combined single limit
Excess Liability	$9,000,000 per year
Workers Compensation	Statutory, Not including students

3. INFECTION CONTROL

1. Summary Points

Observe universal precautions at all times to avoid spreading of germs to or from you and patients.

Wash your hands between appointments and before taking ear mold impressions. Leave the water running while you dry your hands with a paper towel, then turn off the water using the paper towel. If needed, disposable gloves are available throughout the clinic. Splead pads are also available for silicone ear impressions.

Keep used items that are not disposable separate from clean ones. Separate containers are available throughout the clinic. Put used tips into these containers immediately when you are finished with them; do not leave them on the equipment for the next audiologist or student to dispose of. Containers are labeled in each room and should be returned to their appropriate places during clean-up each day. Items that are disposable should be thrown out immediately and not placed on counters.

Disposable/Single Use

- Otoscope specula
- EMI syringe specula
- Insert earphone tips
- Tympanometry probe tips – all systems
- OAE probe tips – all systems
- Infection control earphone covers
- Probe-microphone tubes

Reusable/Sterilized after each use

- Ear light/pen light tips (used for Otoblock placement)
- Video otoscope tips
- All stainless steel cerumen tools (curettes, forceps, specula)
- Irrigator tips (light blue tri-furcated)
- Hearing aid cleaning tools (wax picks, brushes)

If any item that must come in contact with a patient's ear or skin has touched the floor or otherwise become dirty (Eg: from laying on a table, or grinding/buffing), it must be properly cleaned before being used for the patient. Spray cleaner, sani-cloth wipes and alcohol are available for this purpose throughout the clinic.

> Note:
> DO NOT use alcohol or bleach on GSI immittance probe tips. It will burn the tips and cause them to crack.

Keep the clinic environment and supplies clean for all patients. Keep cords untangled & out of the way.

Keep bandages over your own scratches or other open sores, if they are on exposed skin.

Any objects (Eg: plastic wastebaskets, probe tips) or toys which have been in a patient's mouth or which have had contact with drool or other bodily fluids must be washed and disinfected with appropriate cleaners. Tip: Avoid getting these cleaning agents on your clothing. They make permanent spots.)

Avoid cuts & punctures with sharp objects. Wash cuts/punctures immediately with soap & water, and follow this with alcohol or other appropriate cleansers. Report all injuries immediately to the supervisor on duty and complete and **Injury Incident Report**.

> Any disposable items coming in contact with human blood or other bodily fluids must be closed in a plastic bag and placed in the appropriate biohazard receptacle. Sealable plastic baggies are available throughout the clinic for this purpose. Ear impressions contaminated by potential biohazards must be placed inside a sealable plastic baggie, then placed in an ear mold box and labeled appropriately as a courtesy to the hearing aid or ear mold manufacturer.

See the Clinic Clean-Up Instructions posted in hearing aid workroom for further information. Please refer also to the Infection Control Policies below.

Material Safety Data Sheet (**MSDS**)
MSDS information is located in a binder in the hearing aid workroom.

2. Infection Control Policies

What is Infection Control?
Infection control refers to an organized effort to manage one's environment in order to minimize exposure to pathogenic microbes that can make you or your patients sick. In particular, it is a set of policies and procedures designed to protect the most vulnerable prospective hosts from contracting an infection.

What is the Purpose of Infection Control?
Infection control procedures are used to reduce exposure to infectious diseases and their transmission. These procedures protect both the professional and patient from myriad diseases, from the common cold to HIV/AIDS. It is especially important to protect any patients with potentially compromised immune systems. (Eg: children, elderly patients, persons with diabetes, persons with circulatory or respiratory problems, persons with syndromes or diseases) from exposure to the opportunistic diseases and pathogens to which they are vulnerable. It is not possible to completely eliminate all pathogens in the environment, but it is possible to reduce their numbers. Infection control procedures are designed to reduce the number of pathogens in the environment to a level where the normal resistance mechanism of the body may take over and prevent infection. These procedures help break the chain of disease transmission and reduce the risk of infection for all persons involved in providing and receiving clinical services.

What are the Risks?
Professionals who fail to utilize adequate infection control procedures are at risk of:

a. Losing their personal health by developing an illness or disease
b. Violating OSHA regulations
c. Damaging the health of patients, their significant others, and/or clinic staff members
d. Incurring a liability (malpractice) suit

What are the Health Hazards?
Professionals who fail to utilize adequate infection control procedures are at risk of transmitting or contracting the following types of infectious diseases:

a. Pathogens such as Hepatitis B, Cytomegalovirus, and Human Immunodeficiency Virus (HIV)
b. Airborne disease such as Tuberculosis, Influenza, and Cold Viruses
c. Contact with vector borne infections due to Fungi and Bacteria

How are Potential Pathogens Transmitted?
The four modes of disease transmission are defined below:

Direct Contact: One person who is carrying a disease organism directly touches another person. Disease transmission is most likely to occur when contact is made with open sores or mucous membranes (E.g.: eyes, nose, mouth, etc.). Direct contact can also come through ingestion or injection. Vehicles for direct transmission may include water, food, blood, cerumen, and other body fluids and substances.

Indirect Contact: A person who is carrying a disease organism touches an object, and another person later touches that same object. The object may be an otoscope speculum, probe tip, hearing aid, toy, picture board, headphone, pen, paper, water faucet, door knob, or anything else one is capable of touching.

Droplet Contact: A person who is carrying a disease organism breathes, coughs, or sneezes within the same air as another person (direct droplet contact), or on an object that is touched by another person (indirect droplet contact). Airborne droplet contaminants are easily transmitted within an audiology practice due to the close physical proximity of patients and professionals. These airborne contaminants can be widely dispersed by air currents.

Vector borne Contaminants: Vector borne contaminants are transmitted by a bite or sting from an insect or other animal that carries a disease pathogen. While rare in an audiology practice, these should nevertheless be avoided.

How do we Avoid Contamination?
Environmental infection control involves cleaning, disinfecting, and sterilizing reusable items and surfaces.

Cleaning: Cleaning refers to the removal of gross contamination, and it is a precursor to disinfecting and sterilizing. Cleaning does not necessarily kill germs, but will reduce their numbers. Alcohol, no-rinse antimicrobial hand cleaners, soap and water are generally used to clean, but not disinfect or sterilize. Reusable items must be cleaned prior to disinfecting or sterilization. (Eg: Clean off cerumen prior to disinfecting specula.) **Examples of cleaning materials used in the Pacific EarClinic** include Pro EZ 2 detergent (used in ultrasonic cleaner).

Disinfecting: Disinfecting kills a limited variety of germs when household disinfectants are used, and kills a wide variety of microbes when hospital-grade disinfectants are used. Audiocleanse, Audio Wipes, Wavicide, and bleach will disinfect. Alcohol is a weak disinfectant. Disinfecting is sufficient for items that do not require sterilization, such as headphones, tabletops, otoscope specula, immittance probe tips and otolight tips. Disinfection should be used with objects or surfaces that are not contaminated with blood, ear drainage, or cerumen that contains these bodily fluids. **Examples of disinfectant materials used in the Pacific EarClinic** include Audiologist's Choice Audio Wipes, PDI Sani-Cloth Plus wipes.

Sterilizing: Sterilization kills 100% of vegetative microorganisms and their endospores 100% of the time. Sterilization is necessary for any items that may come in contact with open sores, blood, mucous, or items that have the capacity to break the skin. Sterilization cannot be used for items made of wood, acrylic, plastic or silicone. Some of the same chemical agents used for disinfecting can be used for sterilizing, given enough time for soaking in a closed container.

While cerumen itself is generally not an infectious substance, it can often contain dried blood or mucus. If there is visible blood in or on cerumen, then that cerumen specimen is a potentially infectious substance and the instruments contacting it must be cleaned and then sterilized. One challenge is that the color and viscosity of cerumen make it difficult to determine whether blood, particularly dried blood, is present. For this reason, instruments like curettes used in cerumen removal, immittance and otoacoustic emissions probe tips, and otoscopic specula should be sterilized after each use.

Although heat under pressure in an autoclave is the preferred method of sterilization in many medical settings, this method will destroy many of the implements typically used by audiologists. Therefore, "cold sterilization" utilizing soaking chemicals is the primary sterilization procedure used in the Pacific EarClinic. See below "Cleaning and Sterilization Procedure" for more detailed information regarding sterilization procedures. **Examples of sterilizing materials used in the Pacific EarClinic** include Sporox II Sterilizing Solution.

Policies:
Every member of the staff, including the office personnel, faculty, students who provide direct hands-on services and student observers must follow infection control procedures. Direct contact in the form of a handshake, handling a hearing aid, or sharing pens or papers can result in inadvertent disease transmission. Universal precautions must be followed with all patient contacts, because it is impossible to predict who will or will not be susceptible to transmitting or contracting a disease organism.

3. Cleaning and Disinfecting Procedures

Hand Washing
Proper hand washing is one of the most effective infection control procedures available. Audiologist and students should wash hands prior to and immediately after every patient appointment, immediately after the removal of gloves, immediately after contact with potential or actual contamination, prior to and after eating, after the use of bathroom facilities, after the adjustment of contact lenses, after the application of cosmetics, or any other time deemed necessary and appropriate.

Hand Washing Technique: Remove rings (and place them in a safe place). Wet hands, and then lather thoroughly with soap for at least 10 seconds. Rinse thoroughly. Leave the water running while using a paper towel to blot hands dry, and then use the paper towel to turn off the water. All audiologists and students providing hands on service to patients must wash their hands:

a. After seeing each patient
b. Before and after taking ear impressions
c. Immediately after coming in direct contact with cerumen, blood, ear discharge, saliva, or other bodily fluids
d. After using gloves

Glove Protocol
Audiologists and students should use nitrile gloves during procedures involving removal of objects from the ear, including but not limited to: impression material removal, cerumen removal, manipulation of ear and surrounding surfaces in the presence of visible discharge, open wounds, sores, or infection, and when handling infectious waste. Gloves should also be worn when receiving hearing aids, earmolds, ear plugs, or other ear-worn devices directly from patients, or from containers in which hearing aids were placed (see Handling Hearing Aids section below)

Putting on gloves

- Appropriately-fitting gloves should be worn during necessary procedures
- Gloves should fit tightly, like second skin
- Prior to putting on gloves, bandages should be placed on open sores or cuts
- If glove becomes torn or perforated during use, the glove must be replaced and is not to be reused

Removal of gloves

- Using a gloved hand, pinch the outer side of the glove material of the opposite glove at the level of the wrist
- Peel glove off, from wrist to fingertip, turning the glove inside-out
- Hold the inside-out glove in the remaining gloved had
- Using the index finger of the bare hand, insert finger underneath the remaining glove at the level of the wrist, so that the finger is between the hand and inner portion of the glove
- Peel remaining glove off, from wrist to fingertip, turning the glove inside out
- During the removal process, keep the first inside-out glove inside of the second, newly-removed glove
- Dispose of gloves in waste receptacle
- Wash hands according to hand washing protocol

Do not use gloves when mixing earmold impression material. A chemical reaction can occur that will cause the material to fail to harden. It is not necessary to use rubber gloves when performing cerumen management, because dexterity is of critical importance during cerumen removal procedures and the risk of direct contact with blood, cerumen, or other discharge is relatively low.

Make sure that gloves have a comfortable, but snug fit, otherwise dexterity is compromised. Do not use lotion, petroleum jelly, or powder on your hands when wearing rubber gloves.

Rubber gloves must be removed carefully. Peel the glove downward from the wrist of one arm to the fingertips, turning the glove inside out. Then use your bare hand to do the same with the second glove, tucking the first glove inside the second. Wash hands immediately afterwards. If the gloves are not contaminated with large amounts of blood, they can be disposed of in the regular trash. Gloves should be thrown away in the white biohazard receptacle with the red plastic bag, if they have visible blood.

Handling Hearing Aids and Other Ear-worn devices
Gloves should be worn when handling and cleaning hearing aids, earmolds, ear plugs (i.e. any ear-worn devices) due to the possibility of contact with dried blood, mucus, and cerumen. Accepting or receiving hearing aids, earmolds, ear plugs, or other ear-worn devices from patients

- Hearing aids should be accepted from the patient with gloved hands, or if gloves are not being worn, the patient shall seal their hearing aid in a designated plastic hearing aid baggie.
- Once hearing aid is removed from plastic bag by the audiologist or student, clean and disinfect all surfaces of the device using a fresh disinfectant wipe.

Prior to dispensing a new hearing aid

- Clean and disinfect the new instrument prior to dispensing
- Gloves should be worn when educating the patient about and assisting the patient with the insertion and removal of their devices

Performing a listening check on a hearing aid

- Clean and disinfect all surfaces of the hearing aid using a disinfectant wipe
- After listening check is complete, use a fresh disinfectant wipe to clean the listening probe tip and both ear pieces of the listening stethoscope

Used Specula and Probe Tips
Used non-disposable specula and otolight tips must be kept separate from clean ones. Separate containers are available throughout the clinic. Put all used specula and tips into the "Used" containers immediately when finishing with them. Never leave used tips on equipment for the audiologist or student at the next appointment to remove.

Items must be cleaned first before being sterilized. Put used tips in the Sporox solution soaking trays. The same solution can be used up to 21 days. Before pouring the old Sporox solution down the sink, neutralize it by adding one tablespoon of baking soda. All items in the soaking tray must be submerged in the cleaning solution. If there are too many items to disinfect, then they must be divided into multiple batches. Soak items in the Sporox overnight in order to disinfect them. Do not use bleach, alcohol, ammonia, or other soaps.

Toys and Pictures
Toys and other motivation devices used during audiological assessment should be cleaned and disinfected after each use. Toys should be nonporous and easily disinfected. Plastic materials are easier to maintain than painted wood, metal surfaces or fuzzy, furry toys. Because children invariably place toys in their mouths, great care should be taken when handling objects covered with saliva. Waiting room toys should be cleaned and disinfected daily. Always thoroughly wash hands after contacting a potentially infectious item or wear gloves while cleaning up. Replace broken, or worn out toys. Avoid placing non-washable items in environments frequented by children. Use only washable toys.

Ultra-Sonic Cleaner (HA LAB): Cleaning and Sterilizing Procedure

The following instructions are also posted in the Hearing Aid Workroom.

Cleaning and Sterilizing Procedure

*** To make a new batch of cleaning solution (under sink in lab):**

1. **Gloves must be worn for this procedure!**
2. Prepare to mix the ProEZ2 detergent by first checking the expiration date.
3. Take the ProEZ2 detergent container and pump nozzle over empty mixing container (milk jug) until detergent begins to flow – once the liquid begins to flow, only 1 pump is required (or 1/8 cup).
4. Fill the mixing container with 1 gallon of water so that solution is thoroughly mixed.
5. Solution should be changed weekly, or when it starts to become cloudy.

*** To use the ultrasonic cleaner:**

1. **Gloves must be worn for this procedure!**
2. Ensure the bottom of the tank is clean and free of debris.
3. Place the metal basket in the ultrasonic cleaner.
4. Place tools and probe tips in the basket – ensure they are free of gross particulate (using bottle brush).
5. Fill the ultrasonic cleaner with cleaning solution – ensure all tools and probe tips are covered - do not let water level fall below 1 inch of top of tank.
6. Let tools sit in solution for one hour.
7. Place lid on ultrasonic cleaner and plug it in.
8. Press "set" twice – ensure 380 seconds is selected.
9. Press "TC" and ensure red light is on.
10. Press "On" to start.
11. When cycle is complete, carefully remove basket by lifting the handles and rinse under cool water in the sink. Items are now ready to be sterilized (see below for sterilizing instructions).
12. If sterilization is not required, place items on paper towels to air dry on the counter. Once dry, return them to their designated work/storage area.
13. Wipe down area, remove gloves and wash hands.

*** To dispose of cleaning solution:**

1. **Gloves must be worn for this procedure!**
2. After solution has cooled, turn on tap and run cold water into sink. Unplug cleaner and carefully lift it to sink. Being careful not to spill, pour cleaning solution into the sink.
3. Using paper towel, ensure the cleaner (including basket) is clean, dry, and free of debris.

4. Replace basket and put the lid back on the ultrasonic cleaner.
5. Wipe down area, remove gloves and wash hands.

*** To sterilize equipment:**

1. **Gloves must be worn for this procedure!**
2. Open sterilizing box, carefully pull out handle and remove tray. Place in sink. Careful not to place on counter as it may damage the surface.
3. If the box contains solution, verify the pH of solution with Sporox test vial. If not, fill the box with Sporox solution to the level of the bottom of the tray and then verify the pH of the solution.
4. Replace solution if indicated by test vial. Verify that the solution is level with the bottom of the tray. If not, replenish to the correct level.
5. Replace tray in box using the handle.
6. While holding the handle, place tools and probe tips in the basket so they fit within the tray. Making sure not to splash the solution.
7. Push handle back in and close lid.
8. Let equipment soak in solution for 24 hours.
9. After 24 hours, carefully open box (always wear gloves!) and transfer tools and probe tips to metal strainer.
10. Rinse tools under cool water and then let dry on paper towels.
11. Once tools are dry, return them to their designated work/storage area.
12. Wipe down area, remove gloves and wash hands.

* **To dispose of sterilizing solution:**

1. **Gloves must be worn for this procedure! Be careful not to get solution on clothes/skin.**
2. To neutralize the pH, mix solution with ¼ cup of baking soda.
3. Carefully pour solution down sink drain while running water.
4. Rinse and dry box thoroughly before adding new solution.
5. Wipe down area, remove gloves and wash hands.

Clean off Working Surfaces

Wipe off all working surfaces in contact with water, saliva, cerumen, sneezing, coughing, or clinic materials such as glues, impression materials, mineral oil, grinding dust, buffing compound, etc. Use wet paper towels to remove dust and other clinic materials. Use Sanicloth to wipe off surfaces that have been in contact with hearing instruments, cerumen, or saliva.

Wipe down the VNG table and replace the cover after each use. Never use alcohol or bleach to clean or disinfect non-disposable otoscope specula, headphones, plastic or rubber supplies, or vinyl furniture. Alcohol and bleach cause the rubber, silicone and plastic to break down.

Avoid contamination of surfaces or objects from insects as much as possible by eliminating insects and washing your hands afterwards. Use paper towels when removing insects. Use Sanicloth to disinfect working surfaces.

Earphones

Use disposable insert earphones whenever possible. If the patient has a draining ear or suspected external ear infection, use separate earphones or probe tips for each ear. Use insert phones or earphone covers for TDH headphones on a patient with a draining ear or contagious skin disease (Eg: fungal infections, herpes zoster or shingles). In the case of contagious skin diseases or draining ears, wear disposable gloves to handle these used earphone covers or insert phone tips, and place the used items in a sealed plastic baggie before disposing of them. Items exposed to highly contagious or unidentified infectious diseases should be disposed of in the white biohazard receptacle with the red plastic bag.

Cleaning electrodes

Clean off non-disposable electrode paste immediately using a baby wipe, before it becomes hard and caked. Wash electrodes completely with soap and water. Dry with paper towel then wipe electrode and electrode cord (for all electrodes) with Sanicloth wipe.

Dropped Items
Do not allow contaminated items to come in contact with the patient's ear, mouth, or hand. If any item that must come in contact with the patient's ear or skin has touched the floor or otherwise become dirty (Eg: by laying on a table, grinding or buffing), it must be cleaned or replaced before being used for the patient. Clean earmolds with the spray cleaning solutions available throughout the clinic. Replace otoscope specula or probe tips as needed. Clean hearing aids with Audio Wipes.

Cuts, Scratches and Punctures
Be very careful when handling picks, X-acto knives, razor blades, and scissors. Avoid cuts and punctures at all times. Wash cuts and punctures immediately with soap and water, and allow them to bleed into the running water to help cleanse the wound. After drying the wound, clean it further based on first aid guidelines. Bandages and antiseptic are available in the clinic office. Report all injuries to the clinic supervisor as soon as possible and complete and incident report form. These forms are available on-line. Persons with severe injuries must be referred to the emergency room or Ready Care. If the injured person is a student, she or he may go to University Health Services for treatment.

Blood
Any disposable items that have come in contact with small amounts of blood (Eg: cerumen that may have blood mixed in with it) should be placed in a sealed plastic baggies before disposing of them in a regular trash can. Items exposed to large amounts of blood, or highly contagious or unidentified infectious diseases should be disposed of in the white biohazard receptacle with the red plastic bag. These items should be bagged if possible before putting them in the biohazard receptacle.

Contaminated Ear Impressions
Ear impressions contaminated with potential pathogens must be placed inside a plastic bag before being put into an earmold box. The earmold box and order form must be clearly labeled "Potential Biohazard" as a courtesy to the hearing aid shell or earmold lab.

Cerumen Management
See the Cerumen Management Policies and Procedures. Do not attempt cerumen removal for the following:

Patients with diabetes
Patients taking Coumadin or other anticoagulant ("blood thinner") drugs
Patients with hemophilia
Patients complaining of ear pain or sensitivity in the ear canal
Patients with active ear infections or draining ears
Patients currently with P.E. tubes
Patients with history of outer or middle ear surgery other than P.E. tubes
Patients with tympanic membrane perforations
Patients with blood or other ear discharge
Patient with ears that do not allow a clear view of the canal structure

Sterilization
All items coming in contact with blood and tools used for cerumen removal must be sterilized. Clean the tools first, then submerse these tools in a cleaning solution in a covered container for at least 10 hours (Eg: overnight soaking). Rinse them in water and allow them to completely air dry before using. Wear safety goggles and disposable gloves if handling cleaning solution directly. Avoid getting cleaning solution on your clothing.

Injury and Illness
Pacific University has specific policies in place should a student, supervising audiologist, or staff become ill or injured while performing duties in the Pacific EarClinic. This policy can be found at the following link:
http://www.pacificu.edu/about-us/offices/student-health-center/student-injuryillness-protocol

4. Mandatory Reporting

All public and private officials as defined by state statute ORS 419B.005 including students employed by the university, higher education employees and health care professionals are considered mandatory reporters of suspected abuse. If you suspect abuse, you should first contact your supervisor who would then assist with determining whether you should make an oral report as required by law. Please see the below link for Pacific University's policy regarding mandatory reporting:

http://www.pacificu.edu/system/files/forms/MandatoryReporting_0.pdf

4. STUDENT RESPONSIBILITIES

1. Clinic Meetings & Guest Lecturers

See the Professionalism and Involvement & Motivation sections.

2. Daily Responsibilities

OBTAINING SUPERVISOR APPROVAL

Approval must be obtained from the supervisor by students before any major decisions regarding the evaluation or treatment of a patient are implemented or communicated to the patient. Always consult with your supervisor **before the patient leaves.**

CHART REVIEW & DISCUSSION

Review charts and discuss them with the supervisor before and after appointments.

RECORD KEEPING

See "Record Keeping Procedures".

BILLING ROUTERS

Escort the patient and deliver completed and signed forms to the billing clerk as soon as you complete work with a patient. Do not leave billing routers in patient files at the conclusion of appointments.

EQUIPMENT CHECKS & SET-UP

See Section X.

CLEAN UP

See the Clean Up Guidelines under "Instrumentation & Equipment".

ELECTROACOUSTIC ANALYSIS OF HEARING AIDS

See equipment manuals.

LEARNING NEW PROCEDURES & INSTRUMENTATION

Supervisors are available to teach specific procedures. Learning should be self-motivated and self-directed, however. Supervisors may make special assignments at their own discretion to familiarize students with specific procedures or instrumentation

DEVELOPING CLINICAL COMPETENCIES

See Sequenced Objectives (KASA forms) in the Student Handbook-General Information.

OBTAINING SUPERVISOR SIGNATURES

Get the supervisor signature on all contact notes and official clinic documents. Use full signatures, not initials, where indicated.

3. Working With Other Students & Observers

See Professionalism and Involvement & Motivation.

5. SUPERVISOR RESPONSIBILITIES

1. Chart Review & Discussion with Students

Together with students, discuss plans for evaluations, approaches to amplification management, rehabilitation objectives, and responsibilities and procedures for case follow-up.

2. Clinical Instruction

Supervisors will provide clinical instruction to students using a variety of techniques, such as verbal instruction, demonstration, role-playing, lab assignments & practice, written instruction, etc. Students will be provided with supervision beginning with 100% supervision, which will decrease as the student progresses through the program.

3. Assessment of Students' Clinical Skills

Supervisors will evaluate students' progress and provide grade input to the instructor on record. Grading recommendations will be pooled from all of the on- and off campus supervisors involved before individual students receive a final grade. Supervisors will use the Clinical Core Competencies Evaluation form (Appendix A or Calipso), which progresses as the student progresses through the program. Students should review these forms at least at the beginning and end of each semester and discuss questions or concerns with their supervisor.

4. Final Conferences

Students are required to speak with supervisors at least once per semester regarding student progress and personal goals for development of clinical skills. Conferences are scheduled by signing up for posted times or by making individual arrangements with the designated supervisor. Additional conferences may be requested by the supervisor or student and would be arranged on a case-by-case basis. Supervisors may maintain a supervisory log of interactions with students, results of all conferences, and samples of student reports.

5. Evaluating & Co-Signing Written Records

Students are required to write, proofread, and edit their own reports prior to turning them in to the supervisor. Supervisors are responsible for reading and editing reports.

All contact notes, reports and official clinic documents must be co-signed by the supervisor. A signature, rather than initials, must be used where indicated.

Supervisors must approve all hearing instrument and earmold orders, repair orders, hearing instrument returns or exchange for credit & paperwork before the clerical staff will process the orders.

Supervisors must approve all orders (e.g. hearing protection, IPOD earpieces) for audiology students, and/or their family members.

6. Approval of Student Activities

All major decisions regarding the evaluation or treatment of a patient must be approved by the supervisor holding the appropriate certification (Eg: ASHA CCC-A; Oregon Audiology License) before they can be implemented or communicated to the patient.

7. Maintaining Supervisor Licensure

All supervisors are required to be in good standing with their licensing body for any semester during which they provide student supervision. An Oregon Audiology License is required of supervisors in order for them to directly dispense hearing aids.

6. PATIENT RECORD KEEPING PROCEDURES

1. Patient Records

Immediately **put the patient's name, date of birth and date of service on every piece of paper** regarding that patient. Use the patient's Clinic Identification Number when available. Use black pen when completing audiograms. There is no need to use red for right or blue for left ear symbols.

PATIENT LETTERS, INSTRUCTIONS & MAP

When patients schedule an appointment, they receive a confirmation letter, case history form, and map with instructions for finding the clinic as needed. Patients often hand in their letter and map along with the case history form. Please remove identifying information for shredding and recycle the remainder of the letter. Ask patients if they want to keep the map; if 'no,' recycle it. Do not keep appointment letters or maps in the file.

CASE HISTORY FORM

Separate case history forms are used for children and adults. The forms are mailed out in advance to new patients, time permitting, and usually brought to the appointment by the patient. Make sure the form is complete, double-check important information. Ask follow-up questions as needed. Update information, including addresses and phone numbers, as needed for patients who return to the clinic. It may be necessary to use a fresh case history form if much information is new. Remember that all case history information must remain confidential. Patients may not understand the questions on the case history form; write in clarifications and corrections on the case history form in section the specified for "Comments", if verbal information provided by the patient-lacks detail or is different from what the patient provided.

HIPAA FORMS

See Appendix B.

CONTACT NOTES

Summarize what occurred for each patient contact in the Contact Notes in Sycle. Contact Notes should be brief, but factual, and unambiguous. Contact Notes should be completed on the date of service.

All contact notes should be signed with your full name (not just initials).

Contact Notes are required for the following:

Diagnostic Appointments

Notes may just say "CHE; See Report." Include necessary notes regarding follow-up or future appointments.

Hearing Aid Orientation

Write "AOA"; See Checklist." for adults, or "AOA"; See Report.", if report is necessary.

If the system is digital, you may refer to the Noah printout to describe the settings.

Hearing Aid Recheck

Include any changes made to hearing aids and the type of counseling/re-instruction provided. Print out Noah data.

Telephone Contacts

Include who spoke with whom and outcome of conversation.

Cancellation or No Show Notation

Documentation of a "no show" or cancellation is necessary only for patients who have previously been to our clinic and have files. * For new patients who have no records on file, the forms without identifying patient information for "no shows" can be "recycled" by the clinic secretaries and used for another patient if nothing has been written on them.

Hearing Aid Electroacoustic Analysis (EAA**)**

Document the condition of aids that have been seen for maintenance or repair. Document whether aids returned to our clinic by a manufacturer meet specs. Include in your clinic note that you have first-fit the aid or returned it to user settings after performing EAA. Clearly label

EAA strips with patient name, Make, Model #, Serial #, Right/Left, aid settings and any other significant information.

Special Considerations

Highlight the following types of information in contact notes so that other audiologists and students will not overlook important considerations:
Allergies to earmold/aid plastics
Illiteracy
Blindness
Language other than English used
Need for special physical accommodations and reason
Collapsible canals/essential to use insert earphones
Lack of a hand, digit, or pinna
Other special concerns, if discussed with your supervisor
*Check with supervisor before using colored highlighter pens in the file.

Correcting Contact Notes

Do not use White-Out, or other similar products on official records or contact notes. All corrections must be made in ink.

If you must correct a spelling or factual error while writing a note, cross out the incorrect word(s) using only a single line, then write in the correct information and initial it just above the correction.

To correct something that cannot be done easily by drawing a line, or to add information after a note has been signed, write “addendum for [date]” at the start of a fresh note.

If patient information has accidentally been written in another patient’s file, indicate this in the margin under date, initial this and draw a single line through the entire entry and sign the note.

RELEASE OF INFORMATION

Release of Information from/to other facilities to Pacific University:
Use one form per facility. See required HIPAA forms.

(a) Use one form for each facility. When possible, obtain address from patient for each facility.

(b) If reports need to be sent to more than two facilities, encourage patient to have one report sent to them, then to disburse reports themselves (to decrease clinic copying expenses.)

LOANER AID SIGN OUT PROCEDURES

See the loaner hearing instrument sign out/check in procedures described under “Instrumentation and Equipment.”

7. CLINICAL PROCEDURES

1. Procedures for Initiating Appointments

ASSIGNMENT OF PATIENTS/SCHEDULING
Check the schedule posted by the copier in the front office or on computer the evening before your appointment & familiarize yourself with the cases.

Check the Billing Router Form in the file to see who is responsible for payment & what services the patient is expecting.

Check the patient arrival announcement board to see if your patient has arrived. The patient's initials will be written under the appropriate column if the patient has checked in at the reception counter. If you have been waiting for your patient, but his/her initials have not appeared on the board be sure to ask for your patient by name if anyone is in the waiting area. (Sometimes patients sit down without checking in, or initials may not be on the board).

MEETING PATIENTS
Take the patient's file with you when you pick up him/her in the waiting area.

Wear your name-tag and labcoat, introduce yourself by name, and indicate that you are the student who will be working with her/him today. Also introduce other students who will be with you during the appointment, if appropriate. Introduce your supervisor by name & title. Whenever working in the Clinic, refer to supervisors, and adult patients in formal terms, Eg: by last name.

Avoid talking about any case history until you are seated in the appropriate diagnostic/rehabilitation room. It's fine to ask "How are you?" talk about the weather or parking, etc., in public areas. If the patient is accompanied by a family member, discuss with the patient the option of including significant others in the appointment.

INITIATING CLINICAL SERVICE
(See below for specific protocols for each type of appointment).

Begin obtaining your case history (see below) after you are in an audiometric booth or appropriate room. Close doors behind you to maintain a more confidential environment.

Check that the patient has signed any necessary consent for treatment, release, or other HIPAA forms before you render other services. Try to also get releases signed for future contacts for research.

Instruct patients clearly, and confirm that they understand instructions before beginning tasks. If patients appear confused or uncertain of what is expected to them, do not hesitate to re-instruct. Explain procedures briefly, but clearly, throughout clinical procedures, so that patients know what to expect, and what is expected of them.

Inform patients that you can hear them from the other side of the booth, and that you will be able to talk to each other.

TERMINATING CLINICAL SERVICES
Circle proper service codes and diagnosis code on the router and obtain your supervisor's signature. Return the router to the front desk at check out.

Take the patient to front desk check out.
Help the patient set up any necessary follow-up appointments.

Complete your contact notes prior to leaving clinic on the date of service. Complete your report (1st draft) within 48 hours. Complete your repair, hearing aid & earmold order forms the same day you see the patient.

2. Case History

Read the file before your patient's arrival. Review & update case history information with patients prior to testing. Make note of any significant changes.

Ask clarifying questions as needed. The case history should be thought of as a launch point for the history, not as the complete history.

Avoid "leading" questions. Use open-ended questions whenever possible. If patients cannot respond appropriately to these, use "this or that" or multiple choice style questions. E.g.: "Does your dizziness make you feel light headed, or more like you are spinning around? "Is the noise a continuous sound, or more of a pulsing or clicking?"

Avoid tag questions, such as "You've never worked around loud noise, have you?"

Avoid body language and facial expressions which are leading. E.g.: Shaking or nodding your head when asking a question.

If the patient tells you information that is not essential for you to know, try to steer the conversation back to a more appropriate topic by focusing on specific otological information and listening needs. If needed, make a brief transition statement (E.g.: "That's something to ask your primary care provider about at your next appointment."), then move on to the appropriate topic without providing any long pauses.

If your test results are not completely consistent with the case history, make sure to ask follow-up questions after testing.

For every concern raised in the case history/background information section of reports, you should have an appropriate test result and/or recommendation reflected in the later sections of the report.

3. Informational Counseling

Avoid technical audiology terms and jargon. E.g.:

1. There is no such thing as a "sloping hearing loss"; the sense of hearing cannot "slope" (although the graph/audiogram can). You mean that there is "difficulty hearing high pitched or high frequency sounds, such as children's voices, and consonant sounds in speech such as S, F and TH."

2. There is no such thing as an "air-bone gap." You really mean that there is a conductive hearing loss due to "some problem in the outer or middle ear (behind the eardrum)."

Choose your wording very carefully (from the patient's point of view). Do not alarm patients unnecessarily, but be direct when a medical consultation is needed.

Make information comprehensible to the patient at his/her level of understanding, but avoid "talking down" to patients. Repeat and rephrase as needed. Provide written information, speech-reading cues, and sign language as needed for patients who are unable to hear or understand salient information.

It is not necessary to show the audiogram to every patient while explaining test results. If using the audiogram as a visual aid, explain how the graph is structured before attempting to describe the patient's hearing.

Martin (1995) suggests not showing the audiogram to a patient until he/she asks specific questions about his/her hearing impairment. These questions indicate that the patient is ready to receive this type of specific audiometric information.

Use examples during explanations. E.g.: "Your daughter is hearing loud voices and vowel sounds well, but consonant sounds will be very difficult for her to hear. That means speech will sound muffled and unclear to her. She will especially have difficulty hearing sounds like S, F, and TH. That's why she is having trouble learning to say those sounds."

4. Basic Counseling Guidelines

Listen attentively, even while making notes. Make eye contact to indicate your attention. Clarify what the patient or significant other meant by reflecting back what you understood (or thought you understood). Adjust your records accordingly as they clarify what they meant.

Do not discount or disregard patient's feelings. Patients have a right to their own feelings. Eg: Avoid saying things like "Don't feel that way," or "Don't cry." Instead, try reflective listening, such as "You seem upset. How can I help?"

Avoid phrases like "You won't want to do that,…" or "Next, you want to…" Only the patient knows what he/she is thinking or desiring.

Avoid overuse of should and shouldn't." It can lead to increased feelings of guilt or exasperation. Instead, you can say things such as "It may be helpful for you to…" or "You may want to try to…"

If your patient demonstrates a problem that makes you very ill at ease, obtain assistance with counseling from your supervisor. Try to be professional and take a matter of fact approach, but to be sensitive to what the patient is trying to say.

Make referrals for professional counseling or social services as necessary. Discuss this with your supervisor. The Pacific Psychology and Comprehensive Health Clinic may be a useful resource. The consulting social worker or psychologist assigned to work with persons with hearing impairments is another useful resource.

If you believe there is a need for a Protective Services referral for cases of abuse or neglect, consult with your supervisor as soon as possible. Reporting of suspected abuse or neglect is required by law. See Mandatory Reporting section.

Make sure tissues are always available for patients.

Be aware of cultural, gender, and age based differences in communication style, and try to adjust your approach to counseling accordingly.

Listen for the differences between requests for information and personal adjustment issues, and then try to match your response accordingly. If a patient expresses a personal adjustment concern and you provide an informational response, the patient will perceive that you are not a good listener and you do not seem to care.

When a patient is accompanied to the appointment by a significant other, include both persons in the counseling process, if the patient desires or if the accompanying person has guardianship. Do not exclude either person, nor "talk down" to either one when counseling the patient along with a significant other. In some cases patients may request that their spouses not be included in certain aspects of counseling, and these requests should be honored whenever possible and appropriate. The same is true for young adults accompanied by parents.

5. Making Recommendations

<u>MEDICAL & ENT</u>
Medical referral is required for all of the following:

a. Conductive hearing loss
b. Asymmetrical sensorineural hearing impairment of 15 dB HL or more at two frequencies between 2000 and 8000 Hz, or 20 dB HL at a single frequency
c. Symptoms of retrocochlear impairment, such as tone decay, acoustic reflex decay, positive MLD, etc.
d. Tinnitus
e. Dizziness
f. Otalgia (ear pain)
g. Otorrhea (discharge or foul smell from ear)
h. Impacted cerumen
i. Observable abnormalities of the tympanic membrane or ear canal, Eg: exostoses, fungi

j. Tympanic membrane perforations
k. Medical clearance for hearing aids is required for those under 18 years and those with any of the above conditions.
l. Refer patients back to their *family* physicians in order to obtain otology consultation. This avoids insulting family physicians and helps ensure insurance coverage for otological services when third party payers require referral from primary care physicians. A personal phone call to the physician should be considered by the audiologist for urgent patient care needs.
m. Otologists or otolaryngologists must provide medical clearance for persons getting hearing aids through certain Blue Cross Blue Shield plans and for all persons less than 18 years of age. Family physicians can provide medical clearance for others.
n. Adults have the right to refuse to obtain medical clearance prior to hearing aid fitting, but this is at the discretion of the supervisor. Patients who choose not to obtain medical clearance must sign a "Medical Clearance Waiver" form at the ASA appointment.

AVOIDING WATER IN THE EAR CANALS

o. Any patient with tympanic membrane perforations or P.E. tubes must be advised to avoid getting water in his/her ears.
p. Recommend swim plugs if the perforation is expected to remain on a long-term basis.

GENETIC COUNSELING

q. Genetic Counseling is recommended for anyone who may possibly have a hereditary etiology for hearing impairment. Patients may be referred back to their physician for a generic counseling referral, or referred directly by us as audiologists to a genetic counseling center.

OREGON HEALTH AUTHORITY

r. The Oregon Health Authority requires the completion of the Oregon EHDI Follow-up Database for infants who are seen for diagnostic audiology services. The forms are completed online by your supervisor. The form is required for all children under up to age three years of age.

SPECIAL EDUCATION & EDUCATIONAL OPTIONS

s. Patients who demonstrate any sort of need for special education services (Eg: tutoring, reading, deaf education, etc.) must be referred to the special education program at their local schools. If the special education director is unknown, parents should be advised to call the principal's office at their local school to contact the appropriate personnel.

EARLY INTERVENTION

t. Children under the age of 3 years should be referred to Early Intervention for multi-disciplinary services. Pre-school children with hearing impairments may be referred to Early Intervention, and the John Tracy Clinic correspondence program, in addition to the other special education programs in their school district.
u. Parents of newly identified children with hearing impairments are eligible for free one-year memberships to both the A.G. Bell Association for the Deaf and the National Cued Speech Association.
v. School aged children with hearing impairments should be referred for special education services, esp. speech-language evaluation & treatment as needed. Parents should be given ALL their options for amplification systems (hearing aids, FM systems, transpositional aids, cochlear implants, tactile aids, ALDs), and communication methods or systems (oral-aural, auditory-verbal, Cued Speech, Signed English, ASL), as well as the "pros and cons" of each. Purposely withholding information or giving unbalanced information so that parents will make uninformed choices is unethical.
w. Parents must also receive advice and instructions on how best to advocate for the needs of their hearing impaired child. Older children require instruction & guidance on becoming their own advocates.

SPEECH-LANGUAGE PATHOLOGY

x. Recommendations for speech-language evaluations should be made for anyone suspected of having a speech or language disorder, regardless of whether the apparent speech or language problem is due to a hearing impairment. Do not say in your recommendation that you are recommending therapy, because it will be the SLP's decision whether therapy is needed after his/her evaluation. It is acceptable, however, to recommend a "speech-language evaluation and treatment as indicated."
y. For school-age children, additional referrals should be made to the speech-language pathologist at the child's school.

AMPLIFICATION

Hearing Aid Type and Circuit Options

z. Recommend binaural amplification for all persons with bilateral hearing impairment unless there is a compelling reason not to. Persons refusing binaural amplification when it has been recommended must sign a "Binaural Waiver" form at the time of the hearing aid appointment before ordering monaural amplification.
aa. Inform patients of the "pros & cons" of different aids so that they understand why you recommend a particular aid.
bb. Discuss telecoil (identify phone ear) & other circuit options, as well as size costraints within aids that limit the number of special circuits available.

Assistive Listening Device and Hearing Protection Device Options

cc. Inform patients of the availability of any appropriate amplifiers; signal systems, hearing protection, etc…
dd. Information may be provided at any type of appointment, or at a separate apointment.
ee. Encourage attendance at the Audiological Rehab group which convenes once evey fall and spring term.
ff. Inform Pacific University students about the Student Disabilities Office services available.

PROTECTIVE SERVICES ABUSE & NEGLECT

gg. We are required by state law to report suspected cases of abuse & or neglect. Always discuss particular cases with your supervisor before making the report. Your supervisor must be informed before any Protective Services reports are filed. For specific information regarding Pacific University's policy see the below link: http://www.pacificu.edu/system/files/forms/MandatoryReporting_0.pdf

PSYCHOLOGY & SOCIAL WORK SERVICES

hh. Consult your supervisor before making the referral.
ii. Make referrals to the patient primary care physician or through a psychologist such as at Pacific Psychology and Comprehensive Health Clinic. Reason for referral may include suspicions of problems such as:
    a. Difficulty adjusting to hearing impairment
    b. Family dynamics which appear abnormal
    c. Serious personality disorders
    d. Depression
    e. Substance Abuse

6. Hearing Assessment

See "Record Keeping Procedures", page 23.

The hearing assessment should be as complete as possible. Unless otherwise directed by your supervisor, it consists of the following:

Case History – See "Case History" on page 28.

Otoscopy – Recommended before other procedures. Cerumen should be described as occluding or non-occluding. Examine external ear and tympanic membrane and describe abnormalities as appropriate.

Pure Tone Air and Bone Conduction Audiometry

For Air Conduction, test the following octave & interoctave frequencies: 250, 500, 1000, 2000, 3000, 4000, 6000, & 8000 Hz.

Note: Ultra high frequency testing (i.e. 12000 to 20000 Hz) may be useful in cases of complaint of tinnitus with normal hearing through 8000 Hz—especially for young firearm users.

For Bone Conduction, test the following octave & interoctave frequencies: 500, 1000, 2000, 3000, 4000 Hz.

You may use either an Ascending or Modified Hughson-Westlake (Carhart, 1957) method for determination of thresholds. (See a general audiology reference text.)

Use ER-3A or EAR-3 **insert earphones** for all air conduction testing, and note type of headphone used on audiogram.

Note: Insert earphones may not work well with small curvy canals or canals with excessive cerumen. Also, proper insertion of insert phones is critical, or you may get artificial conductive component.

When recording unmasked bone conduction thresholds on the audiogram, discuss which symbol to use with your supervisor. Eg: **<**, **>**, or **Λ**

Obtain interoctave thresholds, bilaterally, if there is a difference in thresholds of 20 dB HL or more at two adjacent octave frequencies, or if the patient is a hearing aid candidate (esp. 3000 Hz). Any interoctave frequency tested in one ear must also be tested in the other ear.

Use masking, as needed. See general audiology texts for audiometry procedures.

To ensure proper placement of the bone oscillator (esp. if bone conduction thresholds are worse than air conduction), present a continuous, suprathreshold, 1000 Hz tone by bone conduction. Move the oscillator slowly around the mastoid area until the patient says the tone is loudest. Secure the headband and then test.

Remember that equipment limits vary by frequency & by audiometer.

Complete tone UCLs at 500 and 3000 Hz, bilaterally, if the patient is a hearing aid candidate.

Classification of hearing impairment:

Use the pure tone average for hearing thresholds at 500, 1000 and 2000 Hz. Describe the overall degree of hearing impairment, based on the PTA, using the following guidelines:

-10 to 15 dB HL	Normal hearing sensitivity
16 to 25	Slight hearing impairment
26 to 40	Mild hearing impairment
41 to 55	Moderate hearing impairment
56 to 70	Moderately severe hearing impairment
71 to 90	Severe hearing impairment
> 90	Profound hearing impairment

Katz, J. (Ed.) (2009). Handbook of Clinical Audiology. Baltimore: Williams & Wilkins.

Speech Audiometry

Use recorded speech audiometry materials whenever possible for both SRT and word recognition scores. Compact Discs for speech audiometry are located in each audiometric booth and labeled by booth.

Exceptions for use of recorded speech:

CD equipment malfunction or unavailability

Patients who can only give SDT (Eg: severely developmentally disabled, young children, patients with significant degree of confusion or dementia)
Foreign language speakers for whom we have no native language recordings

Speech Recognition or Detection Thresholds
SRTs and SDTs should agree with the pure tone averages (PTAs) for the respective ears within +/- 6 dB HL.

Familiarization. The first step in the testing procedure is to familiarize the patient with the exact spondaic words in the word list. This necessary step ensures that the test vocabulary is familiar to the patient, the patient can auditorily recognize each test word, and the patient's responses can be accurately interpreted by the audiologist or student. The audiologist may read the test list to the patient in a face-to-face situation or present the test list through an audiometer. In either case, visual cues should be eliminated during familiarization with the test words. The patient repeats or in some other way demonstrates recognition of each word on the list. The audiologist should emphasize that the patient is to respond only with words from the test list. If the patient has any difficulty understanding or responding to any spondaic word, then that word should be eliminated from the test list. Any spondaic word that the audiologist has any difficulty understanding should be eliminated from the test list. Familiarization with the test list is essential to control for the effects of prior knowledge of test vocabulary on the speech recognition threshold (Tillman & Jerger, 1959). It should not be eliminated from the procedure.

Martin and Dowdy (1986) method for completing SRT:

a. Set the start level at 30 dB HL. Present one spondee. If a correct spondee is obtained, this suggests that the word is above the patient's SRT.
b. If no correct response is obtained, raise the presentation level to 50 dB HL. Present one spondee. If there is no correct response, raise the intensity in 10 dB steps, presenting one spondee at each increment. Stop at the level at which either a correct response is obtained or the limit of the equipment is reached.
c. After a correct response is obtained, lower the intensity 10 dB and present one spondee.
d. When an incorrect response is given, raise the level 5 dB and present one spondee. If a correct response is given, lower the intensity 10 dB. If an incorrect response is given, continue raising the intensity in 5 dB steps until a correct response is obtained.
e. From this point on the intensity is increased in 5 dB steps and decreased in 10 dB steps, with one spondee presented at each level until three correct responses have been obtained at a given level.
f. Threshold is defined as the lowest level at which *at least* 50 percent of the responses are correct, with a minimum of at least three correct responses at that intensity.

Martin, F.N. & Clark, J.G. (2011). Introduction to Audiology. Boston: Pearson.

Word Recognition Scores
Word recognition testing may be conducted at a variety of intensity levels, depending on the purpose for the evaluation. You may need to test at more than one intensity level for some patients. (Eg: +32 dB SL, +40 dB SL re: SRT to approximate PIPB max, MCL, conversational loudness of 50 dB HL, or high levels for PB Function). Use a Performance Index when necessary. Use 40 SL re: SRT as the presentation level for most persons without severe hearing loss (See Margolis, 1997 for further details). For scores less than 80%, additional lists may be presented at an adjusted presentation level.

Include speech in noise testing on most adult patients, or at the discretion of your supervisor.

Word recognition testing is usually conducted at a comfortable suprathreshold level using monosyllabic words. Document the materials & procedures used for testing. The NU-6 word list should be used unless there is a compelling reason to use different material (Eg: California Consonants, CID Everyday Sentences).

Use the following guidelines when deciding whether to administer 25 or 50 NU-6 words (per text by Margolis):

a) Obtain word recognition scores for NU-6 words presented at 30-40 dB SL re: SRT.
b) If the patient has normal hearing sensitivity and scores 100% for the first 10 Rank Ordered words, you may record the score as 100% and stop testing.

c) If the patient has a conductive hearing impairment and scored 100% at the last evaluation, administer 10 Rank Order words. If the patient scores 100% for the first 10 Rank Ordered words, you may record the score as 100% and stop testing.
d) If the patient misses 3 words or less out of the first 12, administer 25 words.
e) If the patient misses more than 3 words out of the first 12, administer 50 words.

Interpret the word recognition scores for monosyllabic words as follows:

Classification	%Correct	Communication Problem
Excellent	90-100%	Little or no difficulty in all situations
Good	80-89%	Difficulty seldom noted
Fair	70-79%	Difficulty in some situations
Poor	40-69%	Difficulty in most situations
Very Poor	0-39%	Difficulty in all situations

Complete Immittance Battery (see #7 below)

Otoacoustic Emissions (see #8 below)
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Any necessary Special Tests

Optional Procedures
a. Speech MCL & UCL, especially if an amplification candidate
b. Loudness Growth Functions
c. (See Contour Test Worksheet in audiometric booth or file cabinet)

7. Immittance Battery

The Immittance Battery (a standard part of hearing evaluations) must always be preceded by otoscopy and includes:

a) Tympanometry
Use a 1000 Hz probe tone for infants younger than 6 months of age
Use a 226 Hz probe tone for patients older than 6 months of age

When describing tympanometry results in a report, do not use the term 'flat' when referring to Type B tympanograms. Instead, use the statement "Tympanometry indicated Type B tympanograms with no compliance and normal/abnormal ear canal volume.

b) Tympanometry Interpretation (226 Hz probe tone):
Expected results are as follows (Katz, 2009):

Ear canal volume:	0.3 to 2.2 mL
Compliance:	0.2 to 1.8 mL
Peak pressure:	-200 to +50 daPa
Tympanometric width:	35-200 daPa

c) Tympanometry Interpretation (1000 Hz probe tone):
See data from Margolis et al., 2003; Kei et al., 2003; Baldwin, 2006.

d) Ipsilateral and Contralateral Acoustic Reflex Testing
Test at 500, 1000, 2000, 4000 Hz

Ipsilateral acoustic reflex testing is optional if the contralateral acoustic reflex thresholds are at expected sensation levels, bilaterally.
Test contralateral acoustic reflex decay at 1000 Hz. If you cannot test 1000 Hz, then test at 500 Hz. There is no need to do both.

Acoustic Reflex (AR) Interpretation:

Interpretation is based on the pure tone threshold at each specific test frequency, for the purpose of determining **Sensation Levels (SL)**. Martin & Clark (2012).

EXPECTED AR Thresholds are at 60-100 dB **SL**

REDUCED AR Thresholds are less than 60 dB **SL**

ELEVATED AR Thresholds are greater than 100 dB **SL**

ABSENT ARs are a "No Response" at 110 dB HL

Do not call your result a "no response" unless you got no response at equipment limits or 105 dB HL, whichever level is lower. **Do not test at levels greater than 105 dB HL, in order to avoid risk of discomfort or hearing loss.** Do not use a number with a plus to indicate a no response (Eg: 105+); use "NR." If you are unable to go to 105 dB HL or equipment limits because the patient complains of discomfort, report this as "CNT due to patient UCL at x dB HL."

If you are unable to establish reliable pure tone thresholds, you may need to interpret acoustic reflex data based on Hearing Levels (HL). Normal acoustic reflex thresholds would be 85-100 dB, elevated at 105 dB or absent (NR). Eg: For a toddler, you may report that the acoustic reflexes were "present at normal hearing levels", or were obtained at "higher than normal hearing levels, consistent with a possible mild to moderate hearing impairment."

Note on Phrasing AR Results:

An acoustic reflex may be "present" or "absent", but there can be no "absent AR threshold." Always use the term "acoustic reflex", not just "reflex."

Correct Eg: In the right ear ipsilateral acoustic reflexes were present at expected sensation levels for 500 & 1000 Hz, but absent at 2000 & 4000 Hz.

Incorrect Eg: In the right ear ipsilateral acoustic reflex thresholds were present at expected sensation levels for 500 & 1000 Hz, but absent at 2000 & 4000 Hz.

8. EVOKED OTOACOUSTIC EMISSIONS

Transient evoked and/or distortion product otoacoustic emissions are an important component of the hearing assessment battery. OAE's are a direct assessment of cochlear outer hair cell function; the presence of emissions is consistent with (although does not diagnostically confirm) normal hearing while the absence of OAE's can indicate at least a mild, and possibly greater, hearing loss. The signal-to-noise ratio (SNR) criterion used in this clinic to indicate present emissions is 6 dB, both for transient evoked and distortion product emissions testing. (Manufacturers install frequency specific cut-off SNR criterion when using emissions screening protocols.) In addition, reproducibility should be 70% or greater and stimulus stability should be 90% or greater.

The use of OAE testing should be considered as part of the test battery for:

a. Diagnostic hearing evaluations for infants in combination with auditory brainstem response testing
b. Diagnostic hearing evaluations for toddlers and young children in combination with visual reinforcement and/or conditioned play audiometry
c. Diagnostic hearing evaluations for older children in combination with behavioral audiometry
d. Diagnostic hearing evaluations for patients of any age when malingering is suspected

All OAE test results should be printed and placed in the patient's chart. Discussion with the patient and/or the patient's family regarding test results should be limited to "is consistent with" rather than "indicates normal hearing" or "indicates a [specific degree] of hearing loss". OAE testing is site-specific and therefore cannot be used to diagnostically confirm function of the entire auditory pathway.

CHE (Adult) Protocol

Case History:

Patient will complete adult case history form. Please ask the patient to elaborate further, as needed. For example:

a. Duration of reduced hearing sensitivity-gradual or sudden
b. Ear pain, ME infections, surgeries, tinnitus
c. Dizziness-if yes, how long does it last, how is it evoked
d. Balance difficulty-If yes, has a physician been consulted
e. History of HA use
f. History of noise exposure, use of hearing protection and family history of hearing loss

Otoscopy:

Look for cerumen or redness in the ear canal and check the appearance of the tympanic membrane. Cerumen should be described as occluding or non-occluding. Examine external ear and tympanic membrane and describe abnormalities as appropriate.

Immittance Testing:

a. Run Tympanometry. Run reflexes; ipsi and contra for 500, 1000, 2000 and 4000 Hz (Note: it is not uncommon for the reflex to be absent at 4000 Hz, even in individuals with normal hearing).
b. Based on reflex results, administer reflex decay testing at 10 dB SL, contralaterally at 1000 Hz. If decay is negative, then stop. If positive, administer reflex decay at 500 Hz.

Pure Tone Audiometry:

a. Obtain thresholds from both ears, 250 through 8000 Hz (including 3000 & 6000 Hz).
b. Obtain SRTs recorded, if possible, or monitored live voice, if necessary, using the spondee word list.
c. Set up disc for word recognition testing using NU-6 preferably at 40 dB SL. If patient has a moderately severe hearing loss or greater, administer testing at most comfortable level (MCL). MCL can be obtained via the microphone and using running speech. If patient is cognitively delayed or unable to repeat words, use the WIPI to obtain WRS.
d. **If WRS between the ears is different, refer to Carney & Schlauch (2007) or Thornton and Raffin (1978) table to determine if the difference is significant. Also, use this table to compare your results to previous test results.**
e. Perform speech in noise testing:
    a) Patients 12 years of age and older, administer QuickSIN binaurally at 70 dB HL or at 80 dB HL, if PTA exceeds 45 dB HL or the Words-in-Noise (WIN) at 80 dB HL in each ear.
    b) Patients under the age of 12 years, administer the WIN test at 80 dB HL in each ear
f. Obtain UCL's for both ears using puretones at 500 and 3000 Hz; start presenting stimulus at 10 dB SL.
g. Perform bone conduction testing; complete with masking if required.
h. **Note- Please give the patient a copy of the COAT and a medical clearance form if recommending HA's and if patient shows an interest to come back for a hearing aid selection appointment.**

References:

American Speech-Language-Hearing Association. (2005). *Guidelines for manual pure-tone threshold audiometry.* Rockville, MD: Author. Available from http://www.asha.org/members/deskref-journal/deskref/default.
Wilson, R. H. & McArdle, R. (2007). Intra- and Inter-session Test, Retest Reliability of the Words-in-Noise (WIN) Test. *Journal of the American Academy of Audiology, 18,* pp. 813-825.

Masking for Puretones

When to mask for Air conduction?

- AC (TE) – BC (NTE) ≥ IA

When to mask for Bone conduction?

- Air-Bone Gap ≥ 15 dB in the same ear

Masking Method

Plateau Method: Masking noise goes into the NTE. Begin at initial masking level in the NTE and at threshold in the TE. Increase masking noise and tone by 5 dB until masking noise increases by 20 dB and the tone stays the same. If increasing by 10 dB, stop after two increments and if increasing by 5 dB stop after three increments.

Initial Masking level formula
Air conduction: AC (NTE) +10 dB
Bone conduction: AC (NTE) +10 dB +Occlusion effect

Occlusion Effect (OE)

Frequency	Inserts	Headphone
250	10	30
500	10	20
1000	0	10

Katz, 2009

Interaural Attenuation (IA)

TDH- 39 headphones	Inserts
40	60

Katz, 2009

Masking for speech (Katz, 2009)

When to mask for SRT
If the SRT in the test ear exceeds the SRT in the non-test ear by IA
If the SRT in the test ear exceeds the air conduction PTA in the non-test ear by IA
If the SRT in the test ear exceeds the bone-conduction PTA in the non-test ear by IA

How much masking to use:
Mask the non-test ear with "at least" 30dB of masking below the SRT of the test ear
Add the amount (dB) of the air-bone gap in the NTE if the hearing loss is conductive or mixed

When to mask for WRS:
If masking was needed for the SRT it will be needed for word recognition testing
If the presentation level in the test ear exceeds the SRT in the non-test ear by IA
If the presentation level in the test ear exceeds the air conduction PTA in the non-test ear by IA
If the presentation level in the test ear exceeds the bone-conduction PTA in the non-test ear by IA

How much masking to use (same as w/ SRT):
Mask the non-test ear with "at least" 30dB of masking below the presentation level of the test ear
Add the amount (dB) of the air-bone gap in the NTE if the hearing loss is conductive or mixed

Results and Recommendations:

a. If the test results indicate an asymmetry between ears for either puretones or speech, recommend medical follow-up with an ABR or MRI on medical clearance.
b. If a ME abnormality present, recommend consult with an ENT.
c. If no red flags are present, talk about hearing aids and give completed medical clearance to the patient. Patients who are private pay may be given the option of signing medical clearance waiver at the discretion of your supervisor provided test results did not indicate any red flags. It is however, important to inform the patient that medical clearance by a physician is recommended.
d. If the patient does not have insurance benefits and expresses concern about the hearing aid cost of the hearing aid, provide information regarding Lions club or rehabilitation services depending on their employment status.
e. Recommend fall and balance evaluation if the patient is at a risk for falling and has not been already evaluated by a physical therapist or his physician.
f. Do **not** issue a medical clearance at the CHE, if:
    a. 1st time diagnosis of a conductive HL or conductive component. Needs medical, then re-test.
    b. Known conductive HL with active pathology. Needs medical, then re-test.
    c. Sudden SNHL. Needs medical ASAP!
    d. Significant change in SNHL (WRS: based on critical difference table; pure tones: based on supervisor discretion)
    e. Any asymmetrical SNHL along with symptoms consistent with acoustic neuroma (unilateral tinnitus, balance and/or dizziness).

In these cases, you would tell the patient that medical is needed prior to discussing hearing aids. Also, ask the patient to remember to add us on their release of information when they do see the physician, so we can get the medical results. We can issue the medical clearance at the repeat CHE or the ASA.

ABR Referral Criteria:

1. ≥15dB asymmetry at two frequencies or 20 dB asymmetry at one frequency between 2000 and 8000Hz **or** unilateral tinnitus.
2. Using Thornton & Raffin (1978) or Carney & Schlauch (2007), a critical difference between ears in word recognition scores, regardless of hearing loss.
3. Positive acoustic reflex decay, regardless of hearing loss.
4. Supervisor discretion based on the patient's test results and presenting symptoms. Including, but not limited to:
    a. Significant decrease in hearing sensitivity in one ear
    b. Sudden onset SNHL
    c. Above signs accompanied by tinnitus
    d. Above signs accompanied by dizziness
    e. Aural fullness

CHE (Pediatric) Protocol

Case History:
Patient's caregiver will complete child case history form. Please ask the caregiver to elaborate further, as needed. For example:

a) Reason for the visit and sounds the child responds for?
b) History of ear infection and/or PE tubes
c) Performance in school (i.e. difficulty in specific subjects, attention, teacher concerns, etc.)
d) Does the child receive special services?
e) Observe speech and language of the child

Otoscopy:

Look for cerumen or redness in the ear canal and check the appearance of the tympanic membrane. Cerumen should be described as occluding or non-occluding. Examine external ear and tympanic membrane and describe abnormalities as appropriate.

Immittance Testing:

a. Run tympanometry

Based on how cooperative you feel the child may be, administer OAE's before or after CHE:

a. Obtain TEOAE's from both ears; Increase the level of noise by 3-5 clicks if excessive biological noise such as sucking or movement is present.
b. If TEOAE's are absent then run DPOAE's.

BOA/VRA (0 months-2 or 2.5 years)

1. Use inserts or headphones as much as possible

2. **Obtain SDT or SRT:**

a) With children who can point to body parts; present at 55 dB HL to condition or familiarize with the task
b) Once patient is conditioned, drop to 15 dB HL (a SDT at less than 15 was usually considered acceptable). Alternatively, you can also drop straight down to 0 dB HL and use the ascending method; going up by 5 dB once you observe a response.
c) Use either method until you obtain two consecutive responses.
d) Watch the child closely for any responses including stopping activity, head turn, babbling or speech.

3. Pure Tones:

a. Present loud (55-65 dB HL) pure tones (warble in the soundfield) to condition and drop quickly (i.e.; to 15 and seek threshold from there) or use ascending method and drop down to 0 dB HL once the child is conditioned
b. If you feel the child is not responding try changing stimulus to NBN or pulsed tone and re-condition at 55-65 dB HL if required.
c. Start at 2000 Hz and then move to 500 Hz, alternating between the two ears.
d. Once you obtain these two frequencies fill in the other two (4000 and 1000 Hz).
    a) Attempt to get as much info as possible (AC, BC, ear specific info)
    b) The assistant may use the bone vibrator to communicate with the tester.

Behavioral Observation Audiometry Normative Data

Auditory Behavior Index for Infants: Stimulus and Level Response

Age	Noisemakers (dB SPL)	Warbled Pure Tones (dB HL)	Speech (dB HL)	Startle to Speech (dB HL)
0-6 Wks	50-70	75	40-60	65
6 wks-4 mo	50-60	70	45	65
4-7 mo	40-50	50	20	65
7-9 mo	30-40	45	15	65
9-13 mo	25-35	38	10	65
13-16 mo	25-30	30	5	65

16-21 mo	25	25	5	65
21-24 mo	25	25	5	65

*Testing done in sound room

Reference: Northern, J. & Downs, M. (1991). Hearing in Children (4th Ed.). Baltimore, MD: Williams & Wilkins.

CPA (2-2.5 years to five years)

SRT:

a. Using children's spondees, picture spondees, spondee toys or the task, "point to your body parts" obtain SRTs. Familiarize the child with the spondees at 55 dB HL by having them repeat the words back to you. Once the familiarization is complete, drop down to 30 dB HL to obtain thresholds in both ears.
b. Obtain SDT (with children who cannot point to body parts); present at 55 dB HL to condition

Pure Tones:

a. Condition the child using the object in the bucket game.
    a. Start with presentation level at 50 dB HL. The tester may demonstrate the task one or two times to the child and then do it along with the child a few times until the child understands the task.
    b. Once the child understands the task, drop down to 30 dB HL and obtain thresholds.
    c. It may be helpful to use warble tones if the child starts to lose interest.
    d. Frequency order: 2000 Hz, 500 Hz, 4000 Hz, 1000 Hz, 8000 Hz and 250 Hz. It is a good idea to alternate between ears so you get at least some information from both ears.
    e. Obtain BC thresholds if possible. BC thresholds help determine the type of hearing loss especially if the child has a middle ear pathology.

9. ASA: Aid Selection Appointment

See "Record Keeping Procedures, Hearing Instrument Orders."

The ASA should be as complete as possible and may include:

a) Discussion of audiogram
b) Patient completion of a subjective benefit scale (Eg: APHAB, COSI, etc.).
c) Discussion of amplification styles
d) Discussion of amplification technologies
e) Discussion of amplification options
f) Discussion on pricing of multiple hearing instruments
g) Make a recommendation based on patient's needs (benefit scale), etc.
h) Ear Impressions or measure for receiver-in-the-canal products (domes, receiver, etc.)
i) Optional: ALD Needs Assessment

Hearing Aid Selection (ASA) Protocol

Forms:

a. COSI
b. HA pricing worksheet
c. Hearing aid purchase agreement
d. Hearing instrument order information
e. BTE Hearing aid order form
f. Manufacturer order form for custom HA's or if earmold is ordered from the HA manufacturer

Before appointment: review the following information from the patient's chart:

a. Patient's audiogram
b. Receipt of signed medical clearance or appropriateness of medical waiver.
c. Previous HA use
d. Insurance benefits
e. COAT
f. If appropriate, perform simulated fit to determine candidacy for RIC or open fit products.

During the appointment:

a. Review audiogram with patient.
b. Complete COSI; obtain specific goals (possibly with examples). For instance, if patient reports trouble understanding speech in BGN, ask for an example.
c. Discuss the recommendation for binaural vs. monaural. Discuss "realistic expectations". Provide general price range for hearing aids. Use binaural waiver if indicated.
d. Talk about different HA styles keeping in mind the patient's audiogram, previous HA use and dexterity. Highlight advantages and disadvantages of each style. Show dummy models and pictures of each style. Focus on the style(s) that is most appropriate for the individual.
e. Talk about the different levels of technology: Entry, Mid and High level digital technology. Provide specific comparison between each level. Focus on listening environments, listening needs and patient lifestyle.
    a) **Entry level technology:** Good for one or two primary listening environments, mainly in quiet. Limited need for reduction of background noise or automatic capabilities. Suited for more of a "quiet lifestyle".
    b) **Mid level technology:** Good for more than one listening environment. More need for background noise reduction and automatic adjustments. Options for connectivity. Suited for a more "active lifestyle".
    c) **High level technology:** Good for dynamic listening environments. Definite need for background noise reduction and automatic capabilities. Various options for connectivity. Well suited for a highly active lifestyle.
a. Determine the need for additional accessories and/or connectivity.
b. The patient should guide the choice for the level of technology. Based on patient's needs and desires, provide specific instrument recommendations and costs. Review the choices with your clinical supervisor.
c. If earmolds are required, take impressions (both impressions can be done at once if the patient is an adult). Measure for dome size, RIC receiver or slim tube length.
d. While the earmold is setting, complete the purchase agreement.
e. Once HA color and accessories have been chosen, review with your clinical supervisor and get the purchase agreement signed.
f. Have the patient sign the purchase agreement and inform them that they will receive a call once the HA's have been received by the clinic.

g. Provide a copy of the purchase agreement to the patient when you walk the patient to check-out.

For children age 10 years and under:

a. RECD measurements should be obtained and printed for the chart.
b. Air conduction thresholds should be entered into NOAH. If the thresholds were obtained by ABR, please enter the **dB nHL** values.

After the appointment:

a. Complete required forms; HA order form, earmold order form, hearing aid selection form.
b. Write chart note.
c. Place the patient's chart, order forms and EMI in your clinical supervisor's cubby.
d. Use the correct impression box, do not put chart in supervisor's file.

10. AOA: Aid Orientation/Hearing Instrument Verification Appointment

a. Guidelines for discussion are provided on the checklist

b. You are required by FDA regulation to provide patients with their manufacturer hearing instrument instruction manual.

c. Provide Assistive Listening Devices Information

d. Patients should complete the APHAB, COSI, or similar form if it was not completed at the ASA.

e. When orienting patients to a telecoil, give written instructions. Have the patient practice using the T-Coil with the phone in the room. Explain to patients that:
   1. <u>Telecoils are very sensitive to the angle at which you hold the phone.</u>
   2. <u>Not all phones are hearing aid compatible.</u>
   3. Sometimes telecoil-compatible ALDs are available at public institutions, such as theaters. Patients should call at least a day in advance to borrow systems if possible (to give the facility time to find the device & make sure it is re-charged the day before it is needed.)
   4. It may be necessary to turn up the aid's volume control when using the telecoil.
   5. Using a telecoil may not always be successful with severe hearing losses.

f. If possible orient a significant other along with the patient to the care & use of the amplification system.

g. Provide any appropriate informational handouts, Eg. on coping strategies; tinnitus; tips for coping with unilateral hearing loss; tips for handling hearing aids when vision or dexterity problems are present; etc.

h. Provide information about hearing instrument care products and accessories available through our clinic, Eg: batteries, cleaning solution, cleaning tools, dry aid kits, forced air blowers, telephone feedback control devices, etc.

i. The AOA should also include the following:
   1. Perform otoscopy

2. Check of shell or earmold fit
3. Adjustment of aid for sound quality
4. Real ear measure using speech spectrum/swept tones, and MPO verification
5. Check of patient's ability to perform all hearing instrument care functions
6. Complete the hearing aid adjustment form, obtain signatures of the patient and supervisor
7. Optional Measures:
    1. Soundfield Functional Gain
    2. Speech Recognition measures
    3. SIN, Quick SIN, or HINT
    4. Articulation Index

Hearing Aid Orientation (AOA) Protocol

Forms:

a. Hearing instrument adjustment period
b. Hearing aid orientation sheet

Before appointment:

a. Fill out yellow warranty sheet
b. Hook hearing aids to the computer and ensure adaptation is set to 100% target
c. Set up for real ear measurements and ensure probe microphone is calibrated

For children age 10 years and under:

a. Go to the appropriate fitting software.
b. Choose the appropriate hearing instruments.
c. If prompted by software to apply a **pediatric or junior mode** hit "apply". This will automatically use a DSL fitting formula; if you are given a choice for fitting formula choose DSL.
d. In the "**Patient**" tab go to the "**Audiogram**" page, at the bottom of the page choose the correct transducer (note the default is "headphone"). If the thresholds were obtained by ABR, please enter "**ABR-nHL-insert earphones**".
e. In the "**Patient**" tab go to the "**RECD**" page, if the RECD values were measured, enter the values directly on the graph. If RECD values were not measured, use "averaged".
f. Go to the "**Fitting**" tab. Depending on the software, you may be prompted to "**Recalculate the fitting**" if not, you must manually recalculate the fitting (look for the bulls eye target icon).
g. Program aid based on white ASA form
h. Print out settings
i. Complete all other check-in procedures as per usual (i.e. EAA, biologic check, etc.)

During the appointment:

a. Perform otoscopy
b. Insert probe tube and get patient set for real ear measurement; ensure patient close to the instrument and probe mic is facing the speaker.
c. Run real ear using speech at 55, 65 and MPO
d. Once real ear measures are completed, program hearing aids to match patient's needs.
e. Practice battery and HA insertion and removal.

f. Counsel patient regarding care and maintenance of the HA's (Use the green hearing aid orientation sheet as a guide).
g. Go over warranty sheet with patient.
h. During checkout, make an appointment for conformity aid check (CAC) in 2 weeks and provide patient with a copy of the warranty sheet.

For children age 10 years and under:

a) Check HA settings/software to ensure all check-in steps were completed. Per Phonak, these should be startup program or manual program due to slight delay using automatic.
b) Fit the hearing aids as usual. Perform feedback test.
c) Perform verification using Verifit speechmapping (test box or on ear) with RECD values.
d) Aids should be left at 100% adaptation.

11. CAC/ACA: Conformity Aid Check/Aid Check Appointment

See "Record Keeping Procedures, Hearing Instrument Repairs."

CAC within the 30-Day Trial Period:

a. Patient should repeat outcome measures, EG: APHAB, COSI, etc. (The APHAB is on the computer under IHAF).

b. Do not repeatedly tell the patient to "try the hearing aid this way for a while" if it means going beyond the 30-day trial period. Take care of all major problems such as circuit changes, re-makes, & exchanges within the 30-day trial period. Remind the patient of the deadline for returning the instruments if dissatisfied.

<u>Conformity Aid Check (CAC) Protocol</u>

a. Otoscopy

b. **Check the following:**

F: Fit; check fit of HA (custom), earmold or dome (open fit). Verify patient has HA's in correctly and is comfortable inserting and removing the HA.
F: Function; Check with patient regarding sound quality of HA's in different situations. Make appropriate changes to programming base on patient complaint.
F: Feedback; Listen for any feedback from HA's. If feedback present; check HA for wax build up, fit of HA and re-run feedback manager if required.
D: Data logging

c. Re-administer COSI
d. Address any other questions or concerns the patient may have
e. Make a follow-up appointment if necessary. If not, let patient know that hence forth they will be seen as needed.
f. Advise patients to come in for a clean and check appointment approximately every 6 months. If the patient prefers, a reminder can be set up at the front desk for an ACA every 6 months. Please mark this on the router in the space for follow up appointments.
g. Add recall on the router for an End of Warranty (EOW) aid check 2 months prior to warranty expiration.

All ACAs:

- Perform otoscopy
- Troubleshoot problems & re-counsel as needed.
- Inquire about any questions or problems the patient may have regarding the hearing instrument.
- Listening check, as needed, to identify gross problems in function.

- Complete electroacoustic analysis, as needed.
- Document outcomes of ACA & any new instrument settings.
- Provide written handouts as needed.
- Practice use of telecoil, as needed.
- Inform patient about available cleaning tools, accessories, and ALDs as needed.
- Complete/repeat benefit scale, as needed.

Hearing Aid Check (ACA) Protocol

a. Complete otoscopy
b. Check if hearing aids are under warranty. If yes, perform a complete clean and check (change microphone covers, earmold tubing, wax filters and earhooks)
c. If not, depending on patients complaint let patient know of the charges they may be responsible for before you do anything with the hearing aids.
d. Complete a bio-check once the hearing aids are cleaned
e. Address patients programming needs based on their complaints.
f. Schedule another aid check if needed; if not, advise patient to come in every 3-6 months for a clean and check appointment.

Aid Pick up and Check (APC) Protocol

a. Complete otoscopy
b. Fit the hearing aid and check with patient regarding hearing aid fitting and sound quality.
c. If patients satisfied with hearing aids and hearing aids were dropped off, have patient sign the HA drop off sheet.

12. End of Warranty Aid Check

End of warranty aid check: Suggest this appointment for all patients who are nearing their warranty end or enter as a "recall" for 1 month prior to warranty end. This appointment is 60 minutes.

Purpose of appointment: To ensure patient's hearing aids are in good working condition at the end of the warranty period

Rationale: End of warranty aid checks verify the function of patient's hearing aids and promote good customer service. It provides the patient with faith in the value of the hearing aid and the warranty. It also limits the need for patients to pay for a hearing aid repair within a few weeks or months of the warranty expiration date. End of warranty aid checks can also be provided by manufacturers. However, services provided by the manufacturer are no more than what we can provide in-house. The advantage of having an in-house, end of warranty check is that the patient is not without their hearing aid for two weeks and it also saves them another trip into the office. By providing this service, the hearing aid stays with the patient.

Protocol:
Otoscopy

Biocheck in front of patient, provide a general summary of the inspection of the hearing aid (i.e. plugged receiver, cracked housing or shell, corrosion, moisture in the tubing, etc.). Verify complaints and explain what you are going to do to troubleshoot or explain what you will be doing to ensure hearing aid is still in good working condition.

Replace or clean mic covers, clean earmolds, change tubing, check battery contacts and clean if necessary, provide overall cleaning of the hearing aid, place in drier for 2-5 minutes.

Run EAA, If EAA is good print up results and place in chart, explain results and what you did with the hearing aids to the patient

If EAA is weak, replace receivers if receiver in the canal product, rerun EAA. If EAA is still weak, sanitize clinic receivers; return them to clinic stock and place patient's receivers back onto the aids.

Do not replace receivers if EAA meets manufacturer specifications. There is no assurance that a new receiver will function or last longer than the receiver you are replacing.

If EAA is weak following all troubleshooting procedures, advise the patient that we will need to send in for warranty repair.

Regardless of aid being kept by patient or sent to manufacturer, remind patient of the warranty end date.

Router:
"WAC" (Warranty aid check)

13. AEP: Auditory Evoked Potentials

Consult the protocols available in the ABR booth.
Discuss specific procedures & guidelines with your supervisor before the appointment.
Common Abbreviations:

ABR: Auditory Brainstem Response
AMLR or MLR: Auditory Middle Latency Response
P-300 or CEP: Auditory Event Related Potentials or Cognitive Evoked Potentials
ECochG or Ecog: Electrocochleography.

Diagnostic Threshold ABR Protocol (Baby)

Preparation:

a. Turn on the equipment, enter child's info, trim insert earphones, get the electrodes ready and select protocol.
b. **Stimulus Parameters:**
   a) Gain: 100000
   b) Intensity: Start at 60 dB nHL
   c) Epoch Time: 21.33 ms
   d) # of Points: 512
   e) Stimulus Rate: 27.5 ms
   f) Type: Start with clicks
   g) Low Filter: 30 Hz
   h) High Filter: 3000 Hz
   i) Insert Delay: 0.9 ms

During the Appointment

Otoscopy:

Check ear canals; TM's may or may not be visible due to tiny ear canals. Check for cerumen (occluding or non-occluding), bump in the ear canal, narrow ear canals or any other abnormality.

Immittance Testing:

Administer tympanometry using a 1000 Hz tone if the child is < 6 months and 226 Hz if > 6 months. If using a 1000 Hz tone, make sure to mark the peak.

OAE's:

Obtain TEOAE's from both ears; Increase the level of noise by 3-5 clicks if excessive biological noise such as sucking or movement is present. If TEOAE's are absent then run DPOAE's.

Threshold ABR:

Before you start the ABR test, explain the procedure, importance of having the baby asleep for the whole test and answer any questions the parent/ caregiver may have. Make sure the baby is fed and changed before you start the

ABR recording. If parents permit, scrub/prep the child while being fed. This will help begin the ABR recording as soon as the baby falls asleep. If child failed one ear, start recording using clicks on that ear then record clicks on the good ear. As soon as you're done obtaining clicks (neurodiagnostic) on both ears, focus on the ear that failed the hearing screening and obtain air conduction thresholds at 2000 and 500 Hz. If 2000 and 500 Hz are normal and the baby is still asleep, continue to obtain 2000 and 500 Hz in the good ear and 4000 Hz then 1000 Hz in both ears after that. If 2000 and 500 Hz are abnormal and the baby is still asleep, continue to obtain 2000 and 500 Hz in the good ear and bone conduction at 2000 Hz then 500 Hz in both ears. If the child failed screening in both ears, alternate recording between ears to obtain maximum information.

Stimulus order: Clicks, 2000 Hz, 500 Hz, 4000 Hz then 1000 Hz. (Change high filter settings to 1500 Hz and polarity to alternating when testing at 500 Hz).

If OAE's are absent at any particular frequency (for reasons other than high noise levels), order of tone bursts may be changed. For example: if OAE's were absent in the low frequencies but present in the high frequency, start with 500 Hz tone bursts and then move to 4000 Hz.

Complete a neurodiagnostic click at 70 dB nHL, bilaterally. Obtain toneburst thresholds starting at 60 dB nHL. If Wave V present and wave morphology is good move down to 40 dB nHL. If not, move up by 10 dB steps until you Wave V is present. Also, mark Wave I, III and V at the highest intensity tested. Look for Wave V at 40 dB nHL. If present, start recording at 20 dB nHL (30 dB nHL at 500 Hz). If not, go up in 10 dB steps till Wave V is present. Once done testing the failed ear, switch ears. Once the test is completed unhook the baby, discuss results with your supervisor and counsel parent/caregiver.

Bone Conduction testing for ABR (Stapells, 2010):

a. Must do BC testing if AC thresholds are elevated, even if tympanometry reveals normal results.
b. BC testing sufficient if conducted using 500 and 2000 Hz; audiologist and student may choose to test using clicks.
c. Thresholds for BC:
    a) 20 dB at 500 Hz
    b) 30 dB at 2000 Hz
a. Maximum BC output:
    a) 51 dB at 500 Hz
    b) 63 dB at 2000 Hz
b. Can place BC oscillator by holding it on the mastoid
c. Interpretation:
    a) Normal
    b) Mildly elevated
    c) At least moderate

BC Masking in Infant ABR testing:

Interaural attenuation (IA) in infants is 25 dB (Yang, et al., 1987), masking should be implemented if the air-bone gap exceeds the 25 dB IA.

AC Masking in Infant ABR testing:

Masking is necessary for any patient with a unilateral hearing impairment when an air conduction stimulus is presented to the poorer ear (at an intensity >70dB) and the response has abnormal latency values and no distinct wave I component.

AC masking is **unnecessary** if any of the following conditions are met:

a) If the intensity is <70dB (Ozdamar & Stein, 1981)
b) If the threshold <50dB in non-test ear
c) If you have distinct wave I (normal) in the test ear
d) If ABRs are normal in both ears regardless of intensity
e) If there is no detectable response in one or both ears

After the appointment:

Analyzing Results:
Compare test results to the norms in the Auditory Evoked Potentials book by J.W. Hall or equipment specific norms.

Look for absolute latency of Wave V, interaural latency difference and interpeak latency difference of Wave III-V and Wave I-V at 60 dB HL. Also, look at latency at threshold and at what intensity it was obtained.

ABR Interpretation (Threshold):

Use Gorga/Stapells expected air conduction thresholds:
20 dBnHL Clicks
30 dBnHL at 500Hz
25 dBnHL at 1000Hz
20 dBnHL at 2000Hz
20 dBnHL at 4000Hz

Use Stapells expected bone conduction thresholds:
20 dBnHL at 500Hz
30 dBnHL at 2000Hz

Remember: BC IAA for newborns is 25 dB. Use the air-bone gap to interpret the hearing loss as being sensorineural (no air-bone gap) or having a mild or moderate conductive component.

ABR Screening Protocol (Baby)

a. Otoscopy
b. See stimulus parameters above
c. Complete AC click ABR at 35 dB nHL, bilaterally
d. Analyzing data:

Look for absolute latency of Wave V and the interaural latency difference.

Present at expected absolute and interaural latencies=PASS
Report to Oregon Health Authority & physician (testing is complete)
Not present at expected absolute and interaural latencies=FAIL

1. Report to EHDI & physician
2. Schedule rescreening/diagnostic ABR testing
3. At this appt., the same rescreening is repeated. If the baby passes, then testing is stopped and complete. If the baby fails again, diagnostic testing commences immediately.

ABR (Adults-Neurodiagnostic)

Preparation:

Take a look at the audiogram and decide if you need to correct for the hearing loss.

Turn on the equipment, enter patient info, get the electrodes ready and select protocol (Neurodiagnostic Protocol).

Stimulus Parameters:

Same as for ABR for a child except intensity is set to 80-90 dB nHL (based on air conduction thresholds at 4 kHz) and testing is performed using only clicks.

Otoscopy:
Cerumen should be described as occluding or non-occluding.

Immittance Testing:
Run a quick tymp on both sides to ensure normal TM movement and middle ear status.

ABR:

Before you start the ABR test, explain the procedure, asks the patient to relax and try to take a nap.
Make sure all parameters are correctly set. Start testing at 90 dB nHL. If patient intolerant to 90 dB nHL then administer ABR at 80 dB nHL.
Repeat testing for both ears.
Once completed analyze data for absolute latency of Wave I, III and V,
Correct for hearing loss if needed (If hearing loss is > 50 dB at 4000 Hz. To correct, subtract 0.1 from the absolute wave latency of Wave V for each 10 dB of hearing loss starting at 50 dB.
Analyze interaural latency difference of Wave V (should be less than 0.2 ms).
Discuss results with your supervisor and then counsel patients and make appropriate recommendations.

Bone Conduction testing for ABR (Stapells, 2010):

Must do BC testing if AC thresholds are elevated even if tympanometry reveals normal results.
BC testing sufficient if conducted using 500 and 2000 Hz; audiologist and student may choose to test using clicks.
Thresholds for BC:
20 dB at 500 Hz
30 dB at 2000 Hz
Maximum BC output:
51 B at 500 Hz
63 dB at 2000 Hz
Can place BC oscillator by holding it on the mastoid

General ABR troubleshooting guide:

High Impedance: Try scrubbing again; if impedance does not improve check cables make sure they are inserted all the way; try replacing electrode cables if required. Keep in mind, if baby has ear tags, it may cause the impedance to be high on that ear.

Large Artifacts: Make sure baby is asleep & adults are relaxed with eyes closed; if artifacts continue check the chords (chords for the insert earphones should not be touching and should be away from the electrode box). If it doesn't work, set high pass filter to 100 Hz instead of 30 Hz.

Electrical Noise: Make sure the red and blue box of the inserts is not too close or entangled with the electrode cables. Make sure the electrical noise is not a 60 Hz tone.

ABR Interpretation (Retrocochlear)

Apply correction factor for SNHL prior to interpreting latencies (subtract .1ms for every 10dB of hearing loss beyond 50dB @ 4000Hz). Note the use of correction factor in the report.

Normative interpretation in order of sensitivity

1) IT5: ≤.20ms (w/1 standard deviation maximum of.30 ms)
2) I-V: ≤ 4.0ms (w/2 standard deviation maximum of 4.4 ms)
3) I-III: ≤ 2.0ms (w/2 standard deviation maximum 2.4 ms)
4) Absolute Latencies: Within 2 standard deviations (SD) when compared to equipment specific norms.

Use 1000Hz stimulus if clicks are abnormal/absent. Interpretation of IT5 (≤.20 to.30ms) used for 1000Hz.

13. Vestibular testing: Electronystagmography, Videonystagmography, Vestibular Evoked Myogenic Potential, Computerized Dynamic Posturography, and Rotary Chair

Discuss specific procedures & guidelines with your supervisor before the appointment.

VNG/FBC Protocol

Case history

Review case history information with patient
Ensure patient has not taken any drugs that may suppress the VOR response
Provide the patient with an overview of what to expect during the testing and answer any questions the patient may have
Ask patient if he/she was screened for BPPV at their primary care provider's office

Based on patient report and case history, Dix-Hallpike may be performed prior to Posturography or after Calorics.

Posturography

Complete SOT, Motor control test (MCT) and Adaptation test

Otoscopy

Immittance testing: Only tympanometry to check ME status

Hearing screening: Completed only for FBC appointments

Rotary chair

Complete oculomotor testing and rotations

VNG

Complete spontaneous nystagmus testing and repeat any oculomotor tests that were abnormal in the rotary chair
Complete testing for positional
Complete calorics using air or water.

Counseling and recommendations:

Discuss the results with the patient and provide appropriate recommendations
Canalith repositioning maneuver if required.

VEMP Protocol

Otoscopy
Tympanometry: to ensure no middle ear pathology is present
Perform VEMP in both ears one at a time

Obtain two repeatable waveforms
Mark N13 and P23 and note amplitude values to calculate asymmetry

Stimulus Parameters

Gain: 5 K
Intensity: 100 dB nHL
Sleep Time: 100
Sweeps: 128
Artifact: On (both boxes checked)
Stimulus Rate/sec: 5.1
Tone: 500 Hz
Envelope: Blackman
Low Filter: 1.5 Hz
High Filter: 20 Hz
Insert Delay: 0.9 ms

VEMP EMG Monitoring Protocol

Turn on Laptop for VEMP EMG monitoring:

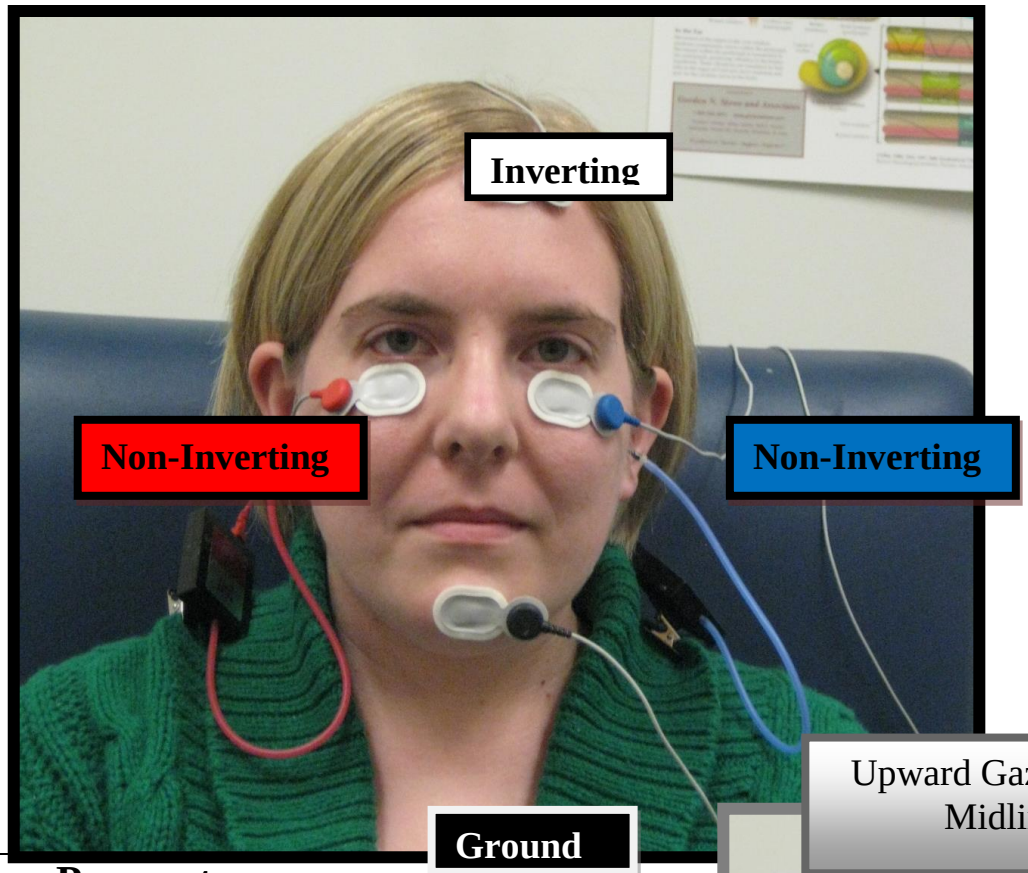
To start Feedback EMG Monitor:

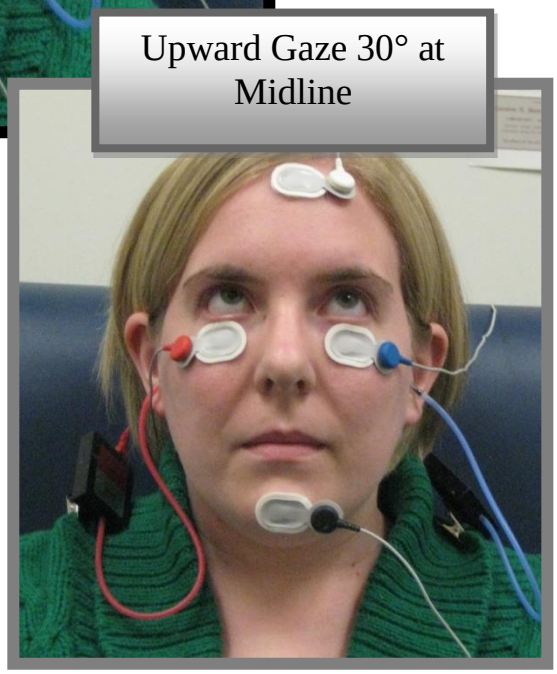
Click “Start” (lower left)
Adjust feedback monitoring screen to liking (small screen far left)
The left and right channels appear together on feedback screen
Have patient meet the 50 uV mark by turning their neck AWAY FROM stimulus ear
Maintain 50 uV during signal averaging

To End:

Click “Stop” (lower left corner)
Go To “ Application” tab at top left of screen
Select “Exit”

oVEMP Protocol





Acquisition Parameters	
Stimulus	500 Hz Tone Burst (2-0-2)
Rate	5.1/sec
Polarity	Rarefaction
Intensity	100 dB HL
Electrode Montage	1 cm below eye/Fz
Analysis Time	50 msec
Gain	100,000
Filters	10-1500 Hz
Sweeps	200
Display Scale	4.0 µV
Artifact Rejection	Off
Patient Gaze	Upward Gaze 30° at Midline
Abnormal Criteria	IAA ≤ 34%

Formula to calculate IAA

$$IAA = \frac{(\text{Left n10-p15 amplitude} - \text{Right n10-p15 amplitude})}{(\text{Left n10-p115 amplitude} + \text{Right n10-p15 amplitude})} \times 100$$

14. APD: Auditory Processing Disorders

Discuss each APD case with the supervisor and familiarize yourself with test administration and scoring procedures at least one day in advance.

General components of APD test battery include:

a) Case history form and verbal interview
b) Audiologic test procedures
c) Speech/language screener (or information from the SLP)
d) Systematic observation of auditory behavior, Eg: SIFTER
e) Behavioral APD test battery
f) Electrophysiologic test battery for patients >10 years

If speech-language screening results are abnormal or if hearing levels exceed 30 dB HL (unilaterally or bilaterally), then usually no APD testing will be performed, and recommendations will be made for necessary diagnostic evaluations.

Audiological test procedures include pure tone air and bone conduction threshold testing from 250 through 8000 Hz, word recognition testing in quiet, full immittance testing including acoustic reflex decay, and otoacoustic emissions testing.

Test protocol for children 5 to 7 years old will include:

Category	Specific Test
Language Screening Test	Eg: CELF Screener (or information from SLP)
Basic Auditory Processing Test	Eg: Test of Auditory Perception Skills-3 (TAPS-3)
Speech in Noise Test	Eg: Pediatric Speech Intelligibility Test (PSI) (Optional)
Teacher Checklist	Eg: Screening Identification for Targeting Educational Risk (SIFTER)

Failure Criteria
Test results will be compared to aged normative data.

Report
A final report will be written using the clinic report format.

Test protocol for children 7 to 11 years old will include:

Category	Specific Test
Language Screening Test	Eg: CELF Screener (or information from SLP)
Binaural Interaction	Eg: Binaural Fusion, MLD
Binaural Integration	Eg: Dichotic Digits Test (DDT), Staggered Spondaic Words (SSW)
Binaural separation	Eg: Competing Sentences
Monaural low redundancy	Eg: Low Pass Filtered Speech Test (LPFST), Time Compressed Speech
Speech in noise	Eg: Word Intelligibility by Picture Identification (WIPI) with multi-talker babble, Words in Noise (WIN)
Temporal processing	Eg: Pitch Pattern Test (PPT)
Teacher Checklist	Eg: SIFTER
Basic auditory processing	Eg: TAPS-3 (optional depending on case history)

Electrophysiology	Eg: Auditory Brainstem Response (ABR), Auditory Middle Latency Response (AMLR) and P300

Failure Criteria
If one subtest is failed, retesting occurs with another test in the same domain. Failure of 2 tools in the same domain constitutes a recommendation for intervention in that area and any other recommendations, as needed.

Report
A final report will be written using the clinic report format.

Test protocol for adults (>12 years) will include:

Category	Specific Test
Language Screening Test	Eg: CELF for children to 16 yrs. SLP Dx referral for >16 yrs.
Binaural Interaction	Eg: Binaural Fusion, MLD
Binaural Integration	Eg: Randomized dichotic digits
Binaural Separation	Eg: Competing Sentences
Monaural Low Redundancy	Eg: LPFST, Time Compressed Speech
Speech in Noise	Eg: Synthetic Sentence Inventory with Ipsilateral Competing Message (SSI-ICM), Hearing In Noise Test (HINT)
Temporal Processing	Eg: PPT, Duration Pattern Test (DPT)
Electrophysiology	Eg: ABR, AMLR, P300

Failure Criteria
If one subtest is failed, retesting occurs with another test in the same domain. Failure of 2 tools in the same domain constitutes a recommendation for intervention in that area and any other recommendations, as needed.

Report
A final report will be written using the clinic report format.

CAPD Recommendations by Domain and Sample Report Summaries:

Criterion for diagnosis from the AAA 2010 (C)APD guidelines.

"… a score two standard deviations or more below the mean for at least one ear on at least two different behavioral central auditory tests (e.g., Bellis, 2003; Musiek & Chermak, 1997, 2007). This criterion, which was based largely on studies of sensitivity and specificity obtained using various cut-off values for various central auditory tests usedto identify known CANS dysfunction, has also been recommended by ASHA (2005b)."

Binaural Integration - Dichotic Listening Therapies (low scores on dichotic digits or SSW)
Exercises and strategies that improve integrating auditory information presented to both ears (two different inputs).

-iDichotic (iPhone App) – need stereo headphones

-DIID therapy or ARIA, if available, from a trained audiologist in a controlled setting.

-Environmental Adjustments

Consider consultation with an Educational Audiologist to assess the need for and use of an FM system (personal or soundfield) in the classroom and to monitor progress at school. An FM system would increase the signal-to-noise ratio of the teacher's voice in the classroom and make the target more audible while reducing background noise.

Consider consultation with an Educational Audiologist to assess seat placement in the classroom.

Consider accommodations in the classroom such as written directions and assignments to complement verbal directions. In addition, repetition instead of re-phrasing of important statements, highlighting important information on tests and homework assignments and use of a note taker should be implemented. This

may reduce the need for ******* to rely exclusively on his auditory system for information and should help with understanding of essential concepts and instructions.

Binaural Separation and Directed Attention Therapies (low scores on Competing Sentences)
Exercises and strategies that improve one's ability to understand speech in the presence of a competing signal or listening to an auditory signal in one ear while a competing signal is presented to the opposite ear (binaural separation).

-Listen to a book on tape (a parent reading a story) in one ear while soft music, white noise or talker babble is played in the opposite ear. Example: Play soft music in the right ear using an earphone while reading a story to ******** in his left ear.

The book can be open or closed.

The iPad has several Apps that provide "noise or babble"******.

Book can be played from boom box while the noise is directed into the ear through an earphone

The ears can be switched during different sessions.

The intensity (volume) of the competition should be soft during initial sessions then gradually increased during subsequent sessions.

Questions about the story should be asked periodically to assess comprehension in the presence of noise.

Allow ****** to follow along by repeating parts of the story. Gradually elevate the volume of the music as the practice sessions increase over time to add to the level of listening difficulty in order to improve his listening skills.

Each session should be no longer than 20-30 minutes.

-Environmental Adjustments

Consultation with an Educational Audiologist should be considered to assess need for and use of an FM system (personal or sound field) in the classroom, to evaluate performance in a noisy and quiet classroom and to monitor progress at school. An FM system would increase the signal-to-noise ratio of his teacher's voice in the classroom and make the target more audible while reducing background noise. Other recommendations based on this observation may provide him with further accommodations in the classroom.

Consultation with an Educational Audiologist should be considered to assess seating placement in the classroom.

Preferential seating at the front of the classroom or near the FM speaker for better hearing in noise should be considered.

Consider accommodations in the classroom such as written directions and assignments to complement verbal directions. In addition, repetition instead of re-phrasing of important statements, highlighting important information on tests and homework assignments and use of a note taker should be implemented. This may reduce the need for ******* to rely exclusively on his auditory system for information and should help with understanding of essential concepts and instructions.

Temporal Processing Therapies (low scores on PPT, time compressed tests, etc.)
Exercises to facilitate processing of complex temporal patterns.

-Practice using the games "Simon" and "Bop-It" at home to strengthen temporal sequencing abilities. These games can be purchased at local toy stores.

-Play the Simon game which uses light and sound patterns and can be purchased at toy stores or downloaded as an application for the Apple iPad or for smart-phones. Play sessions can be as short as 15 minutes at a time.

-Example: Using a piano, play notes that contrast to allow ******* to discriminate between pitches in the order in which they were played. As practice sessions proceed over time, gradually reduce the contrast of the notes and the number

of keys or notes played to steadily increase the level of difficulty, thereby improving his ability to process complex temporal patterns.

Listening in noise Therapies (low scores on the WIN Test)
Strategies to improve listening and understanding speech in background noise.

-Listen to stories (using both ears) in the presence of competing noise (music, babble, fan, at a ball park, TV) and demonstrate comprehension of the important message and concepts. This activity can be conducted in a variety of settings using various materials.

-Environmental Adjustments

Consultation with an Educational Audiologist should be considered to assess need for and use of an FM system (personal or sound field) in the classroom, to evaluate performance in a noisy and quiet classroom and to monitor progress at school. An FM system would increase the signal-to-noise ratio of his teacher's voice in the classroom and make the target more audible while reducing background noise. Other recommendations based on this observation may provide him with further accommodations in the classroom.

Consultation with an Educational Audiologist to assess seating placement in the classroom should be considered.

Preferential seating at the front of the classroom/close to the teacher or near an FM speaker for better hearing in noise should be considered. Positioning in the classroom should be where the teacher's face is clearly visible at no more than a 45 degree angle and away from competing noise sources.

Consider accommodations in the classroom such as written directions and assignments to complement verbal directions. In addition, repetition instead of re-phrasing of important statements, highlighting important information on tests and homework assignments and use of a note taker should be implemented. This may reduce the need for ******* to rely exclusively on his auditory system for information and should help with understanding of essential concepts and instructions.

******** should be seated towards the front of the classroom/close to the teacher with his right ear towards the teacher due to the difficulties attending to a signal in the left ear in the presence of a competing signal. (Sometimes you need to be specific)

Trial use of a classroom listening system or other coping strategies to aid in focusing ******'s attention during teacher instruction, only after consultation with district educational audiologist and observation.

Train active listening and metacognitive strategies (actively thinking about the thinking process) to enable ****** to help retain the content and meaning of the message. A metacognitive approach requires that one evaluate the demands of a listening task (listening to the teacher in a noisy classroom) and make behavioral changes in the way we carry the listening ask (Change position in the room or ask teacher to raise the volume of her voice). (Hamaguchi, 2007).

Auditory Memory Therapies (low scores of memory subtest of the TAPS, dx of working or short-term memory loss by other facility in accompanying paperwork).
Perform exercises that improve auditory memory to sounds, numbers, words, sentences, directions, stories

-Consult an educational psychologist to have auditory memory comprehensively evaluated. Results from the CAPD evaluation conducted at this clinic suggested a significant deficit in the area of auditory memory.

-Play the Simon Game (Simon can be purchased at local toy stores. There is also an iPad App.)

-Play the Bop-It Game(Bop-It can be purchased at local toy stores.)

-Sound Match (iPad App)

-Listen to stories (live, audio, etc.) and review the details of the story

-Play "Simon Says" (the old fashion way)

-Practice memorizing important phone numbers

-Recite the day's activities or the teacher's instructions to a parent at the end of the day.

-Obtain speech and language services to address and incorporate therapy for word memory and sentence memory.

-Utilize Rehearsal Strategies

Teach ******* to inform a communicator to provide one instruction at a time when important details or directions need to be absorbed. *****should be taught to repeat each direction and to summarize all directions at the end (Medwetsky, 1998).

-Write down all important directions or details. This can be done by the teacher initially and later by the student.

-Utilize other rehearsal skills such as memorization (item for item), Mnemonic strategies, grouping of items into a smaller number of units (e.g. memorizing telephone numbers), Singing (e.g. the alphabet or multiplications tables) and summarizing.

-Consider reading the following reference that may be useful to improve short-term memory as well as coding and retrieval strategies: Improving Your Memory: How to Remember What You Are Starting to Forget by Janet Fogler and Lynn Stern.

Following Multi-Step Directions (reports during case Hx or low scores on sentence mem subtest from TAPS)
Exercises to improve following multi-step instructions

-Perform fun activities, such as cooking, and have ****** measure ingredients and follow multi-step directions.

Auditory Comprehension (reports during case Hx or low scores on auditory comprehension or reasoning subtests from TAPS
Perform at home exercises to improve auditory comprehension.

Example: Read engaging books and ask specific questions about what was read.

Educational Services (if indicated from case Hx)

Consider Special Educational Services and an Individualized Education Plan (IEP) for intervention in his areas of weakness. (SLP or OHI may be qualifying categories)

Be evaluated by an educational psychologist to assess educational status for each subject and to determine if a learning disability exist for any of ********** school subjects. This service can be provided by the local school district. You may contact the teacher, the principal or the special education director for the county.

Consider special education qualification under IDEA.

********** should obtain an educational evaluation to further investigate the difficulties ****is experiencing in the classroom and at home.

Follow-up with *******'s teacher to address his current academic performance and behavior.

Consider a full evaluation in reading comprehension and math either in school or by an outside source as recommended previously by the neuropsychologist.

Psychological educational assessment to address issues related to attention, hyperactivity, and behavior management.

Within *********'s educational planning, he may benefit from some accommodation support to address his auditory processing and mild reading difficulties. A general list of accommodation strategies is provided as follows:

a) Organizational Skills: Try to maintain as much daily routine in the classroom as is comfortably possible. Consider giving ********** a daily checklist of tasks to be completed. List all homework assignments in one special notebook, with due dates and resources necessary for completion.

b) Attention and Memory: With oral instructions, repetition is helpful especially if done one-on-one. Break complex instructions into separate steps. Teach ******** active learning techniques such as note taking and underlining. Allow quiet subvocalization as a memory aid, use visual aids when possible.
c) Productivity: Give extra time to complete assignments when necessary. Small group learning is generally more successful than large group.
d) Self-esteem: Reward progress, even when it occurs in slow, uneven steps. Encourage *******'s strengths even if they occur in nontraditional areas.

The following website may be useful to address learning strategies specific to ********'s profile: www.ldonline.org.

Speech and Language Services (As indicated from case Hx, accompanying paperwork or observation)

Obtain speech and language services to address and incorporate therapy for word discrimination, phonological segmentation, word memory, sentence memory and auditory reasoning.

Continue to work on current speech and language therapy goals, reassess as necessary.
Consider evaluation of oral and written language. This can be done through speech language services provided at school.
Continue auditory processing therapy by the speech language pathologist to address deficits in auditory memory, processing directions and understanding speech in competition.

Incorporate therapy for auditory reasoning, auditory comprehension, sentence memory and listening in background noise in speech and language therapy.

Sample Report Summary Wording for Various Diagnoses (All summaries must be edited for specific patient)

Simple Normal Results (No APD)

All results from APD testing were within normal limits.

The American Academy of Audiology defines an Auditory Processing Disorder as a deficiency in two or more of the central domains. Under this definition, ******* would not be classified as having an Auditory Processing Disorder, though he does exhibit a weakness in the area of auditory comprehension as shown in the TAPS-3 test.

Normal APD Results with weaknesses

All results from APD testing were within normal limits except for the competing sentence test. ****** could only correctly identify 1 sentence out of 10 when sentences were in her left ear. When sentences were in her right ear ****** performed better but still not within normal limits. ****** was within normal limits for the Words In Noise test, although she had difficulty with the competing sentence test. These results indicate that ****** can understand speech in noise in some settings but may have difficulties in others. ****** demonstrated a weakness in areas of sentence memory, auditory comprehension and auditory reasoning. While these are areas of weakness there are things that can be worked on at home to help ****** improve with these skills. Some examples include reading books and asking specific questions about what was read, doing fun activities such as cooking and having ****** measure ingredients and following multi-step directions.

The American Academy of Audiology defines an Auditory Processing Disorder as a deficiency in two or more of the central domains. Under this definition, ****** would not be classified as having an Auditory Processing Disorder, though she does exhibit weaknesses in specific areas (difficulty understanding speech in noise). At this point, it appears that treatment for ******'s other diagnoses and obtaining a full speech and language evaluation for mumbling and articulation errors should be the primary focus.

Abnormal APD

Previous audiometric test results demonstrated normal hearing and middle ear function, bilaterally. Overall, APD testing indicated significant weaknesses in auditory memory, auditory processing of directions and difficulty processing speech when the speech is degraded or presented in the presence of competition. ******** also scored below age level when processing non-speech patterns. These findings are very consistent with previous APD test results conducted by ******* in 2005. The American Academy of Audiology defines an Auditory Processing Disorder as a deficiency in two or more of the central domains. Under this definition, ***** would be classified as having an auditory processing disorder.

Abnormal APD in the Presence of Other Diagnoses

The results for Dichotic Digits and Words in Noise test were within normal limits. All other APD tests were outside normal limits. In addition, ******* showed significant weakness in word discrimination, phonological segmentation, word memory, sentence memory and auditory reasoning.

The American Academy of Audiology defines an Auditory Processing Disorder as a deficiency in two or more of the central domains. Under this definition, ******* would be classified as having an Auditory Processing Disorder, however, because he has multiple other diagnoses that could be impacting these results a label of APD should be used extremely cautiously. At this point, it appears that treatment for *******'s other diagnoses and obtaining speech and language therapy services to address these areas of weakness should be the primary focus. Regular therapy sessions might address remediation areas defined today.

Abnormal APD with other Diagnoses

The American Academy of Audiology defines an Auditory Processing Disorder as a deficiency in two or more of the central domains. Under this definition, ******* would be classified as having an Auditory Processing Disorder, however, because he has multiple other diagnoses that could be impacting these results a label of APD should be used extremely cautiously. At this point, it appears that treatment for *******'s other diagnoses and obtaining speech and language therapy services to address these areas of weakness should be the primary focus. Regular therapy sessions might address remediation areas defined today.

Describing Fatigue or Distraction

****** demonstrated frequent test fatigue (or distractability) and most likely did not perform at his highest potential for portions of the exam session. (You may describe the test/s on which it had the most impact).

Global Processing Disorder

Today's audiometric test results demonstrated normal hearing and middle ear function, bilaterally. ABR testing contraindicated retrocochlear pathology. Overall APD results indicated that *******does have an auditory processing disorder. Specifically, results suggested weakness in temporal processing, binaural separation, auditory closure and listening in noise. Based on ******'s previous diagnosis of Tourette's syndrome, a global neurological deficit cannot be ruled out as a contributing factor in the tests that were administered today. His overall academic function may also be affected.

Ruling out Auditory Neuropathy or Retrocochlear Pathology

-Consider a sedated neurodiagnostic auditory brainstem response (ABR) test to rule out retrocochlear pathology as a contribution to ******'s symptoms.
Otoacoustic emissions and acoustic reflexes in addition to the ABR should be conducted to rule out auditory neuropathy.

-Result of Masking Level Difference testing indicated possible brainstem dysfunction. Further testing via imaging studies or Auditory Brainstem Response testing is recommended pending consultation with ******'s physician.

AMLR and ABR reporting

-The ABR and AMLR results were abnormal. Abnormal ABR results suggest the integrity of the brainstem may be compromised and retrocochlear pathology could not be ruled out. Absence of an AMLR may indicate that auditory information is not being properly processed at the cortical level. There was an absent response over each hemisphere.

-Auditory Middle Latency Response (AMLR) testing was performed and responses were present at expected latencies. The Pa component of the waveform was present over both hemispheres and symmetrical, with left and right stimulation. These findings are within normal limits.

-P300 testing, with binaural stimulation, was conducted. Responses were obtained at expected latencies and were judged to have adequate amplitude.

Normal but given reading material

-Although APD testing demonstrated age appropriate performance, xxx were given a handout on strategies to enhance xxx's listening skills in the classroom and at home.

General Recommendations

-Consider a full neurophysiological evaluation to address concerns.

-While overall TAPS results were within normal limits (within two stds below the mean) it should be noted that several of the subtests were greater than one std below the mean (borderline normal) and should be considered possible problem areas for ****. Further testing may be indicated in these areas.

-********** should be seen by his pediatrician in order to monitor and resolve the issues related to the status of his middle ear.

-********** should return to this clinic for a hearing assessment following medical intervention and resolution of the middle ear pathology to monitor hearing status.

-********** should continue to receive pull-out services in school, and the therapy provided should now include practice in auditory memory, and the interpretation of auditory directions.

-********* should return in one year for another APD evaluation to monitor her auditory development and progress.

15. Cochlear Implant Evaluation (CIE)

CIE Protocol

Purpose: establish traditional or hybrid CI candidacy according to FDA and/or Medicare guidelines

Adult

FDA-Traditional
Non-implanted ear/best aided: 60%
Implanted ear: 50%

FDA-Hybrid (Cochlear)
Aided CNC word score in one ear $\geq$ 10% & $\leq$ 60%
Aided CNC word score in other ear $\leq$ 80% and PTA (2, 3, 4 kHz) $\geq$ 60 dB HL

Medicare* (Traditional and Hybrid-Cochlear)
40%
*does not specify intensity, test materials or noise conditions

Pediatric Candidate Criteria

Ages 12 months to 24 months
- Profound sensorineural hearing loss in both ears
- No medical contraindications
- Lack of progress in the development of auditory skills
- High motivation and appropriate expectations from family

Ages 25 months to 17 years, 11 months
- Severe to profound sensorineural hearing loss in both ears
- LNT scores of 30% or less in best aided condition
- Lack of progress in the development of auditory skills
- MLNT scores of 30% or less in best aided condition (children, 25 months to 4 years, 11 months)
- No medical contraindications
- High motivation and appropriate expectations

(both child when appropriate and family)

Protocol:

Complete Adult/Pediatric CHE Protocol as stated previously including 125 Hz.
Complete OAEs.
Hearing aid testing completed using clinic CI loaners
- Electroacoustic analysis to ensure hearing aids meeting ANSI specs
- Speechmapping

Best aided testing in the soundbooth (see below for room set-up and calibration)
- Calibrate soundbooth for testing typically done at 60 dB SPL in the soundfield at 0 degrees azimuth
- AzBio sentences in binaural aided, right aided, and left aided conditions (mask other ear, as needed)
- CNCs in binaural aided, right aided, and left aided conditions (mask other ear, as needed)

Counseling
- Candidate?
- Realistic expectations
- How a CI works
- How a CI looks
- Surgery
- Expected follow-up visits, have patient sign commitment form
- Expectations at the activation
- Possibly pick out colors, accessories, etc.
- Meningitis vaccination
- MRI contraindications post-implant

ROOM SET-UP AND CALIBRATION
Setup

Testing requires a sound-isolated room with a loudspeaker and chair, a compact disc player, and an audiometer. The sound room, audiometer, and loudspeaker(s) **must be calibrated** before administration of any tests. Accurate calibration ensures that test results can be compared across testing laboratories and clinics.

Sound Room
The sound room must be large enough for a chair to be placed in the center of the room and for the loudspeaker to be one meter from a reference point at the center of the listener's head. The minimum room size required is 1.83 x 1.83 meters or 6 x 6 feet.

The chair should be placed in the center of the room, preferably facing a corner away from any window or door. Then, one loudspeaker should be positioned at the level of a typical listener's head directly in front of the chair (approximately 86 centimeters or 39 inches from the floor) (0° azimuth). The speaker should be located one meter from a position corresponding to the center of the listener’s head, as shown in Figure 1. With this arrangement, both the speech and noise signals for the AzBio test, when administered in noise, will be presented from the same loudspeaker. This arrangement typically will be used to assess performance with hearing aids (preoperatively) or a unilateral cochlear implant (postoperatively). At least one additional loudspeaker is required to assess bilateral or bimodal performance with speech and noise presented from separate loudspeakers. Calibration and administration instructions for bimodal and bilateral testing will be provided in a future addendum to the manual.

Figure 1. Sound-field test set up.

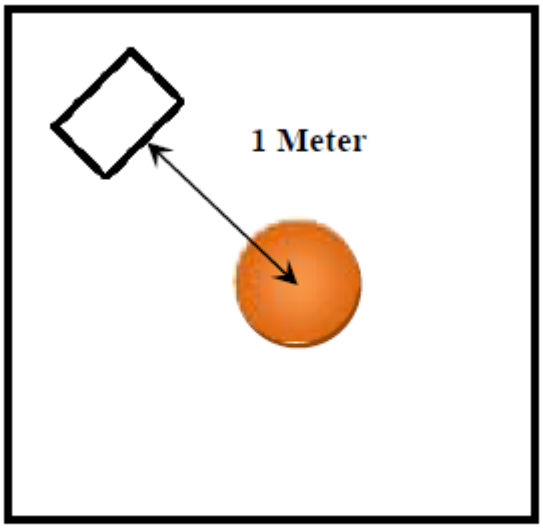


Figure 1. Sound-field test set up.

Calibration

The stimuli on the MSTB CD have been recorded so that the calibration procedure, described below, can be used to set the levels of all of the speech materials on the CD when presented from the same speaker. Calibration is a two-step process. First, the 1000-Hz tone is used to calibrate the level at the input to the audiometer, then the noise is used to calibrate the output from the loudspeakers in the sound field. Both calibration steps must be performed to ensure that the test stimuli are presented at the desired level. It is considered good clinical practice and assumed that a sound-level meter is available for speech perception testing in the sound field. Ideally, calibration of sound field presentation levels should occur at each test session, at a minimum daily.

Audiometer Calibration

FOR TESTS PRESENTED IN QUIET AND IN NOISE
The output from the audiometer is calibrated using the VU meter on each audiometer channel. For the AzBio test, the speech will be presented from Channel 1 and the noise, if used, from Channel 2 of the audiometer. For the CNC test, the speech will be presented from Channel 1 only. For the BKB-SIN test , the speech and noise will be presented from Channel 2 only.

1. Connect the output from the left channel of the CD player to the input of Channel 1 on the audiometer
2. Connect the output from the right channel of the CD player to the input of Channel 2 on the audiometer.
3. Turn on the CD player and audiometer.
4. Insert the CD into the CD player.
5. SKIP to Track 20 on the CD for the 1000-Hz calibration tone. Press PLAY on the CD player.
6. Adjust the VU meter of the audiometer to zero on Channel 1. Press STOP on the CD player.
7. Repeat Step #5 and adjust the VU meter of the audiometer to zero on Channel 2 (if you are utilizing noise). Press STOP on the CD player.

Calibration of Sound Field Loudspeakers

FOR THE AzBIO AND CNC TESTS PRESENTED IN QUIET

1. Place the calibration microphone on a stand so that the microphone is at the position corresponding to the center of a typical listener's head when he or she is seated on a chair (approximately 86 centimeters or 39 inches from the floor).

2. Turn on the audiometer.
3. Connect the audiometer Channel 1 output to the desired speaker and route the signal to Channel 1 on the audiometer.
4. Turn on the CD player.
5. Insert the CD into the CD player.
6. SKIP to Track 19 on the CD which contains a calibration noise. Press PLAY on the CD player.
7. Adjust the HL dial on Channel 1 until the calibration microphone measures 60 dBA. Make note of the HL dial setting because this setting will be used to set the level of the speech signals played through Channel 1.

16. Cochlear Implant Mapping (CIM)

CIM Protocol

Discuss performance with CI with patient and gather information about difficulties that the patient may be experiencing with their CI.
Impedance check for each implant (if pt has 2 implants)
Re-measure T and C levels for each implant
Perform sweep testing for each implant
Ensure maximum volume (10) is not too loud
Perform bilateral balance testing if patient uses 2 implants
Save new maps
Perform soundfield testing as needed and as planned after discussing with your supervisor

a) Warble tones or NBN (250 through 6000 Hz, including 3000 Hz)
b) SRT testing
c) HINT
d) AzBio
e) CNC

Recommend appropriate follow-up
Return all test CDs to the CI room
4 week post-activation, test implant ear with insert or headphone to assess amount of residual hearing preserved. Complete report.
If annual mapping, perform CHE on both ears using inserts or headphones. Test 125-6000 Hz, including 3000 Hz. Complete report.
If initial activation, perform CHE on implanted ear(s) using inserts or headphones. Test 125-6000 Hz, including 3000 Hz. Complete report.

17. Tinnitus evaluation protocol
Comprehensive tinnitus evaluation:

- **Case history**
  During case history ask the patient about their tinnitus:
  - What is the pitch of their tinnitus? (i.e. high, mid or low)
  - What is the quality? (i.e. ringing, roaring, hissing, buzzing, etc.)
  - What is the typical occurrence rate and ear (i.e. constant, intermittent, fluctuating & right, left or both ears)

  Also, listen for certain cues that may lead to a medical referral.
  - Pulsatile tinnitus
  - Sudden onset tinnitus
  - Unilateral tinnitus
  - Tinnitus following a new medication and/or medical condition.
- **Audiogram (Pulsed PTs recommended and HF testing if available)**
- **OAE (Especially when hearing is normal)**
- **Tinnitus pitch matching**
- **Tinnitus loudness matching**
- **Minimum Masking Level (Used for a "Masking treatment")**
- **Residual Inhibition**
- **Subjective tinnitus questionnaires (THI, TSS…)**

What is tinnitus pitch matching and why do we do it?

Pitch matching is a procedure in which an audiologist uses patient's behavioral responses to find the frequency at which a patient's tinnitus closely matches (Henry, 2001). We do pitch matching because it is intended to match the stimulus closest in pitch to the patient's perceived tinnitus (White, 2009). It helps to classify the perceived pitch of the tinnitus as low, middle, or high-frequency and is the basis for some customized sound therapies. Pitch matching is necessary in order to obtain a loudness match and to tailor the sound stimulus that will deliver the targeted acoustic energy to the patients (Mahboubi, 2012). The standard method for pitch matching is to use an audiometer to present pure tones or narrowband noises and ask the patient whether his or her tinnitus has a higher or lower pitch (Mahboubi, 2012).

Step by Step: Tinnitus pitch match procedure:

1. Measure the patient's pure tone thresholds, use of pulsed pure tones is recommended. (Yantis, 1994, Henry 2004).

2. Use audiometer with high frequency (above 8000Hz) capability, if possible.

3. Establish which ear has the "loudest" or more "predominant tinnitus", this is referred to as the "tinnitus ear". If the patient reports symmetrical (equal) tinnitus or a central location (middle of the head) tinnitus, the choice of "tinnitus ear" can be arbitrary (Henry, 2004). If the patient reports multiple and different tinnitus sounds, first match one (predominate sound) and proceed to match the other sounds.

4. Inform the patient that we will try to match the pitch of their tinnitus. You may need to clarify the difference between pitch and loudness if the patient is not familiar with these concepts. **Suggested instruction: I will be presenting a tone to your___ ear; I want you to compare the pitch (not loudness) of the tone to the sound/tinnitus you hear normally in your ____ ear. Don't worry about the loudness of the sound, only judge the pitch.**

5. Present the stimulus tone contralaterally (this is referred to as the "stimulus ear") at 10 dBSL (re: pure tone results). This allows for separation between the patient's perceived tinnitus and the stimulus. Ipsilateral presentation of the stimulus should be considered if contralateral testing is not successful or if the patient has a large asymmetrical hearing loss or a severe hearing loss in the contralateral ear.

6. Instruct the patient to inform you if the frequency of the stimulus needs to be increased or decreased by stating "higher" or "lower". **Suggested instruction: Is the pitch of your tinnitus higher or lower in pitch compared to the tone?**

7. Start with 1000Hz pure tone, unless this frequency is inconsistent with the patient's audiogram. (Henry, 2004). Typically a 1000Hz pure tone will be easily distinguished as being "lower" in pitch than the perceived tinnitus.

8. Continue this procedure in octaves (1000 to 2000, 2000 to 3000) to bracket then use half octaves until you have found a frequency that most closely matches the patient's perceived tinnitus pitch (Henry, 2001).

9. Record your findings. **Suggested notation: Tinnitus in the right ear was matched ("exactly", "closely" "somewhat closely") to a contralateral pure tone of 6000Hz.** If tinnitus was not matched, note: **Tinnitus matching of the ____ ear was attempted using a contralateral pure tone (1000 to 8000Hz) but was unsuccessful, the patient reported… (i.e. His tinnitus was higher in pitch than 8000 Hz, was not present consistently during testing, did not match the pure tone or broad band stimulus at any frequency etc.).**

10. Repeat the above procedure as needed for the other ear or for "other" reported tinnitus.

<u>What is tinnitus loudness matching and why do we do it?</u>

Tinnitus loudness matching is one of the tests used in the evaluation of tinnitus. It is a way to confirm the presence of tinnitus to the patient and to quantify it in terms of loudness (dB). Tinnitus loudness matching is very helpful in counseling the patient about their tinnitus. Most loudness matches are only a few decibels above the patient's specific frequency threshold, even though it may seem much louder to the patient. It may be helpful in the treatment of the patient's tinnitus (i.e. Sound Therapy or masking).

Step by Step: Tinnitus loudness matching procedure:

1. Following the tinnitus pitch match, perform a loudness match.

2. Inform the patient that we will now try to match the loudness of their tinnitus. You may need to clarify the difference between pitch and loudness if the patient is not familiar with these concepts. **Suggested instruction: I will be presenting a tone to your___ ear; I want you to compare the loudness (not the pitch) of the tone to the loudness of the sound/tinnitus you hear normally in your ____ ear. Don't worry about the pitch of the sound, only judge the loudness.**

3. Perform the loudness match under the same conditions as you did the pitch match. Use a contralateral presentation of the stimulus, if that is how you obtained the pitch match. Use the frequency obtained during the pitch match.

4. Instruct the patient to inform you if the loudness of the tone needs to be raised (louder) or lowered (softer) by stating "louder" or "softer". **Suggested instruction: Is the loudness of your tinnitus louder or softer compared to the tone?**

5. Test one ear at a time, start by presenting the tone -10 dB SL (below the patient's threshold) and increase the tone using an ascending method. The intensity level of the tone should be increased in 1dB steps (tone is played continuously using the "interrupt" button) allow the patient to hear the stimulus for 2-3 seconds at each intensity level.

6. Repeat the measurement again to determine the reliability of the response; multiple responses may be averaged, but should be within ±3dB.

7. Record your findings in decibels above the patient's threshold (dB SL: sensation level) and in hearing level (dB HL). **Suggested notation: Tinnitus in the right ear was loudness matched to a contralateral pure tone of 6000Hz at 48 dB HL (13 dB SL re: pure tone threshold).**

8. Repeat the above procedure as needed for the other ear or for "other" reported tinnitus.

<u>What is Minimal Masking Level (MML) and why do we do it?</u>

Minimal Masking Level (MML) is defined as the minimum level of broadband noise that completely masks an individual's tinnitus (Snow & Henry, 2004). MML is used clinically when the goal of treatment is to mask the tinnitus. When testing for MML, it is important to note that the lower the MML intensity, the more likely it is that masking will be an effective course of treatment. MML testing should be carried out after tinnitus pitch and loudness matching procedures have been completed. MML may be tested monaurally or binaurally. Monaurally is not recommended because the task is more difficult for the patient to complete. Broadband noise (BBN) centered on the pitch obtained during pitch matching is used as the noise stimulus (typically between 2,000-12,000 Hz). If the patient cannot tolerate BBN, other types of noise can be utilized.

Step by Step: Monaural MML procedure:

1. Establish monaural hearing thresholds using the noise stimulus as would be done for pure tones using 1dB increments.

2. Instruct the patient to ignore the tinnitus in the non-test ear (NTE) and to report when the noise in the test ear (TE) is great enough to make the tinnitus in the TE inaudible.

3. Present the noise stimulus to the test ear beginning at 1dB SL (re: TE stimulus threshold) and raise in 1dB increments. Present stimulus between 5-10 seconds.

4. The monaural MML test is complete when the stimulus level is sufficient to completely mask the tinnitus in the TE. The dB value is recorded as the monaural MML. Please note in a small percentage of cases, the masking stimulus may have no effect on the loudness of the tinnitus (masking effect recorded as "none") and in rare

cases, the tinnitus may be reported as louder for a short period following the presentation of the masking stimulus (recorded as "exacerbation of tinnitus"). (OHSU, 2007)

Step by Step: Binaural MML procedure:

1. Establish binaural hearing thresholds using the noise stimulus as would be done for pure tones but in 1dB increments.

2. Instruct the patient that they will hear the stimulus in both ears and that they should report when there tinnitus is gone.

3. Using a two channel audiometer, set each channel to correspond to the threshold obtained for each ear (i.e. thresholds were 5dB in the right ear and 3dB in the left ear). Present stimulus binaurally at 1 dB SL (re: TE stimulus threshold). Present stimulus between 5-10 seconds. Increase in 1dB increments (use the “interlock” setting on the audiometer) until the patient reports that they can no longer hear their tinnitus.

4. The binaural MML test is complete when the stimulus level is sufficient to completely mask the tinnitus in both ears. The dB value is recorded as the binaural MML. Please note in a small percentage of cases, the masking stimulus may have no effect on the loudness of the tinnitus (masking effect recorded as "none") and in rare cases, the tinnitus may be reported as louder for a short period following the presentation of the masking stimulus (recorded as "exacerbation of tinnitus"). (OHSU, 2007)

<u>What is Residual Inhibition (RI) and why do we do it?</u>
Residual Inhibition (RI) is the “temporary suppression or elimination of tinnitus that is often observed after auditory stimulation” (Snow & Henry, 2004). RI may be achieved with hearing aids or sound generators therefore, it is important to test for these effects clinically. RI testing can produce either partial or complete RI. Complete RI indicates that the tinnitus is reported as completely gone. In partial RI, the tinnitus is perceived as softer than its ‘usual loudness’. Testing for RI should be completed immediately following binaural MML.
Step by Step: Residual Inhibition (RI) procedure:

1. RI is almost always completed binaurally using the same stimulus as for MML testing. Set the binaural MML values to +10dB in each (right and left) ear. Monaural RI can be completed if indicated.

2. Instruct the patient that a noise will be presented for one minute and when the minute is over they will be asked to report any change to their tinnitus (do not use the words louder or softer to avoid cueing them to expect this sort of change).

3. Present noise for 60 seconds.

4. Wait a few seconds and ask "How does your tinnitus sound right now?" If patient reports no change, then no RI has occurred and testing is over. About 10-12% of patients do not exhibit <u>residual inhibition</u> following a masking trial such as that described here (OHSU, 2007). If the patient reports a change they are asked to describe the change.

5. Most commonly, patients reported that their tinnitus was reduced or absent in the stimulated ear(s), for a brief interval ranging from a few seconds to many minutes; after that, the typical situation was that the tinnitus gradually returned to its normal loudness level.

6. The examiner should record the duration of the suppression or inhibition.
   When it occurs, the tinnitus suppression may be complete (CRI) or partial (PRI) or some combination of these two effects, and the effects may occur differently if the ears are tested separately. The most common result was to obtain complete residual inhibition followed by partial residual inhibition, typically for no more than approximately 30-60 seconds (but longer intervals may be seen). All possible permutations of the various types of effect (none, partial, or complete suppression, as well as tinnitus exacerbation in a few cases) have been observed in the tinnitus patient population (OHSU, 2007)

Tinnitus References

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18. Special Tests: Candidacy and Administration

Discuss specific procedures & guidelines with your supervisor before the appointment.

19. Hearing Screening

Do an equipment listening check before testing. If not in a sound booth, decide on what allowances to use for background noise levels at each frequency, and discuss these with your supervisor.

Instruct the patient to respond to every tone/beep/sound, even if it is very soft.

Screen at **20** dB HL at 500, 1000, 2000, & 4000 Hz in an audiometric booth

PASS = Response at 20 dB HL (or level approved by the supervisor) for every frequency in each ear.

FAIL = No response at 20dB HL for any frequency in either ear.

Do not use "X"s and "O"s on an audiogram at 20dB HL unless this is an actual threshold level. If recording screening results on an audiogram instead of a special screening form, do not use "X"s and "O"s. Write "Passed at 20 dB HL" across the audiogram for a patient who passes the screening at 20 dB HL for every frequency. Write "Referred" for persons who do not pass the screening and use the comments box to indicate why he/she was referred.

Describe the results of the screening in the "Comments" section, if using an audiogram form.

Never write just "Screened at 20" across the audiogram; you must indicate whether the patient passed the screening or was referred, and indicate which ear. Eg: "Passed screening at 20dB HL in the right ear, and referred for the left ear due to no response at 2000 Hz."

20. Cerumen Management

Consult your supervisor before attempting to remove cerumen. Use the video-otoscope and a headlamp. Proceed with great caution, and choose instruments conservatively. Refer to:

Manning, R. (1992). Cerumen management. McLean, VA: American Academy of Audiology.

21. Treatment Efficacy Questionnaires

Document the degree of benefit patients receive from amplification using one of the available benefit scales. The scales named below and others are available in the file cabinet in the hallway outside the hearing aid workroom.

Abbreviated Profile of Hearing Aid Benefit (APHAB)
Hearing Handicap Inventory (HHI) for Adults or Elderly
NAL Patient Oriented Scale of Improvement (COSI)

Document the degree of dizziness handicap using the **Dizziness Handicap Inventory** (DHI), available in the file cabinet.

Document severe tinnitus using the **Tinnitus Hearing Inventory**; this is available in file cabinet as well.

22. Patient Handouts

The file cabinet also contains a wide variety of information for patients. Students are responsible for acquainting themselves with what is available. Give information packets or individual handouts to patients whenever appropriate.

The file cabinet is organized as follows:

Top Drawer:

a. Auditory Processing Disorder Tests
b. Hearing Handicap Inventories and Benefit Scales
c. Speech Audiometry Tests/Materials
d. General clinic forms

Middle Drawer:

a. General & Adult informational handouts
b. Pediatric informational handouts
c. General Agency Brochures
d. Adult Agency Brochures
e. Pediatric Agency Brochures

Bottom Drawer:

a. TBD

8. Report Writing

1.. General Guidelines

Phrase things clearly and avoid Audiology jargon. (See pitfalls listed below.)

Avoid syntactic, semantic, and spelling errors. Use the spell check and grammar check functions on the computer. Avoid run-on sentences.

Be as concise as possible. E.g.: You do not need to describe hearing losses in frequency by frequency detail within reports; just describe the most pertinent features of the hearing impairment. For asymmetrical hearing loss, describe information for each ear separately.

Summaries should not restate everything verbatim. Document significant observations about hearing sensitivity or speech recognition, and asymmetrical hearing in the summary. Also document any significant change in hearing sensitivity or speech recognition in the summary.

Remember to include items necessary for accreditation of our clinic and for third party payers. (E.g.: Prognostic statements and speech-language statements)

Put patient names on every page of the report, except the 1st page, in upper left-hand side.

Use "persons first " language. A person's identity is more than a disease or a disorder. E.g.: Do not say "Jerome is developmentally disabled." Say "Mr. Jones **has** a developmental disability. "Do not say "Mrs. Smith is diabetic." Say "Mrs. Smith **has** diabetes."

Font should be Times New Roman and should be no smaller than 10 points.

Proofread carefully. Read reports aloud to yourself and make sure they flow naturally.

Double-space first drafts. Single space subsequent drafts. Print the 1st page of the final copy on blue-edged paper.

1st draft reports are expected within 48 hours post appointment. Edited drafts are expected within 48 hours after the initial draft has been returned to the student.

All rough drafts reports are completed on the secure flash drives.

2. Common Pitfalls in Report Writing

Semantic Pitfalls:

"Sloping hearing loss"
There is no such thing as a "sloping" sense of hearing, sloping vision, etc. A graph, such as an audiogram, can have a slope, but the physical sense of hearing cannot. Because it refers to the graph, the "*audiometric configuration*" can have slope, rise, or be fragmentary, etc. Be careful to consider whether you are writing about the person's auditory perceptual abilities (sense of hearing) or their audiometric configuration; these are two different things.

"Middle ear shape"
You cannot realistically describe the shape of the middle ear; we refer to the *tympanometric shape.*

Decide whether you are describing (a) the tympanogram, or (b) the middle ear function.

E.g.: The following two sentences are saying essentially the same thing. Use one method or the other, and be careful to avoid mixing terminology. Notice that when describing middle ear function, you do not discuss "shape."

Tympanogram Description: "Immittance results indicated normal peak
pressure, reduced amplitude, and shallow (Type As) typanometric shape bilaterally."

Middle Ear Function Description: "Immittance results indicated normal middle ear pressure and reduced compliance, bilaterally. " These results should then be interpreted for the report.

Immittance Terminology Cohorts:

Middle Ear Function	Tympanogram
middle ear pressure	tympanometric peak pressure
middle ear compliance	peak amplitude
N/A	tympanometric shape
N/A	tympanometric gradient

"Conventional audiometry"
There is no universally accepted definition of "conventional audiometry," and it is therefore a meaningless term. If necessary, say audiometry," or use descriptive phrases such as "pure tone air conduction audiometry using insert earphones."

"Speech testing"
"Discrimination" refers to the ability to distinguish whether two sounds or words are the same or different. When the task involved requires the patient to repeat back words, you should use the term "recognition." You should specify the type of testing by saying "word recognition" or "sentence recognition" scores.

"Normal hearing loss"
E.g.: "Hearing sensitivity is in the normal to mild hearing loss range." You probably mean that there is a mild hearing impairment, or that the patient has borderline normal hearing. Or you may mean that there is normal hearing in one frequency range and a mild hearing impairment in some other frequency range. Be precise in your wording.

"Mild to severe hearing loss"
If using the adjectives "mild, moderate, severe, profound," please follow the guidelines outlined in this manual for Classification of Audiometric Data. The classification terms are based on pure tone averages, not on all individual frequencies. Use these descriptions judiciously.

"Misarticulation errors"
A "misarticulation" is an error, so this phrasing is redundant.

Unidentified Abbreviations"
Do not abbreviate terms (E.g.: SRT, UCL, P.E. Tubes) without first indicating what they mean. Remember that the majority of people who will be receiving reports are not audiologists, and are unfamiliar with Audiology jargon.
E.g.: Speech Recognition Thresholds (SRT) were…

Unidentified Symbols
Avoid using symbols or abbreviations on audiograms that are not in the key. If using unusual symbols, define them in the key or comments section of the audiogram. Do not "invent" your own symbols unless absolutely necessary.

Unspecified dB Scale
Without a specified reference point, the number you supply is meaningless. Always specify the dB scale as SPL, HL, SL, nHL, A, etc.

Faulty Pronoun References
Do not use "he" or "she" unless it is obvious who the referent person is. E.g.:
"Mrs. Jones and her daughter were informed of the test results. She was advised to…" Does "She" refer here to Mrs. Jones, or to her daughter? It is necessary to use the correct person's name in the second sentence here to avoid any confusion.

Counseled/Informed/Advised/Recommended Confusions
You do not "inform" or "counsel" your patient to return to the clinic for another appointment. You "advise" or "recommend that" he or she return.

Counsel	=	To discuss & provide guidance
Inform	=	To tell & impart information

Advise	=	To suggest & offer advice
Recommend	=	To endorse or advise

"History included a history of…."
This is redundant. Just say "The patient has a history of…"

Syntactic Pitfalls:

Subject-Verb Agreement
Pay attention to what the subject of your sentence actually is, and use plural verb inflections only for plural subjects. Proofread sentences for S-V agreement by mentally eliminating the adjectives, adverbs, and relative clauses.

Use of Past Tense
Past tense should be used consistently throughout the entire report. Use present tense only to indicate ongoing or permanent conditions.

Use of Parallel Construction
When providing a list (e.g.: for goals or recommendations), each item in the list much start with the same part of speech (e.g.: verb). (See the Clinical Service Goals.) Each item must also follow the same syntactic pattern. It is permissible to begin some items within a list with adjectives and others with nouns, because each item in that case is being initiated with the subject. (See the Mission Statement as an example.) Do not start some items with a noun or adjective, and others with verbs or prepositions.

Use of Semicolons
You can connect two complete sentences with a semicolon if they express a single idea. Strive to avoid run-on and other complicated sentence structures if possible, however.

When writing a long list (e.g. goals or recommendations), you may use parallel construction and semicolons to make the whole list into a single sentence. This technique is used to avoid redundancy and create a more organized and concise list. Semantically and syntactically, each individual item in the list must be able to flow from the introductory phrase as a complete self-contained sentence. E.g.:

It was recommended that Mrs. Smith:
Consult her physician regarding the pain in her left ear;
Obtain medical clearance for amplification;
Obtain binaural amplification; and
Consider purchasing a telephone amplifier.

Because this is one long sentence, "and" is necessary after the semicolon on the second to last item.

3. Hearing Evaluation Reports and Audiograms

Rough draft audiograms must not be discarded until the report is finalized and signed. (In most cases, the supervisor will shred the rough audiogram after signing the report. Supervisors may retain rough drafts, however, for grading and instructional purposes.)

Background Information
The Background Information section should include all pertinent history from both the case history form and interview. Include make, model #, settings, and earmold information from previous hearing aids; vision and dexterity information; pertinent medical history and medications being taken; educational, speech-language, and communication methodology history; and Audiological history. Include the referral source if pertinent. Also include hearing handicap information (E.g.: APHAB, SAC/SOAC, Denver Scale, or HHI results.)

All initial CHE reports must include a generalized speech-language statement **(**based on your observations) under the Background Information section. Make speech language statements more often if the patient is a child. If it has been a few years since we have seen an adult patient, another speech-language statement is recommended to update the background information. If the patient was seen at another facility for a hearing

evaluation and his/her first visit to PEC is for an ASA, you must include a speech-language statement in the ASA report or other initial report.

If a speech-language problem of any sort is identified, there must be a corresponding statement under the Background Information or Recommendations sections indicating what type of speech language services are being obtained or recommended.

If the case history is lengthy, you may break it into logical paragraphs (E.g.: birth history, medical history, audiological history, speech-language and educational history). These paragraphs do not require separate sub-headings.

Test Results/Parameters
If description of the patient's pure tone hearing sensitivity is brief, the pure tone thresholds and speech audiometry results can be described in a single paragraph. If the pure tone results require a more lengthy description, however, use separate paragraphs for pure tone and speech audiometry results. If the hearing impairment is asymmetrical, use separate sentences for each ear. Specify procedure used or test parameters as needed for test interpretation.

Summary & Prognosis
All PEC reports for persons who do not have normal hearing must include an amplification prognostic statement. Indicate whether or not the patient is a candidate for the use of amplification. If there is reason to believe that there may be a serious medical problem, indicate that the "prognosis is withheld, pending medical consultation."

Recommendations
If there are more than two recommendations, it may be advisable to use lettering or bullets to better delineate each recommendation.

Audiogram Forms
Final audiograms must be completed by the end of the clinic day (see the sample), including the following details:

a. Fill in the patients whole name, birth date and identification number. The ID #'s are usually available from the clerical staff on the day following the appointment; they are always available in time for your final draft of the report. Use black ink.

b. Fill in the Make and Model number of the audiometer. E.g.: Madsen OB922

c. Remember to indicate the reliability rating.

d. Remember to circle the immittance probe tone frequency

e. Mount tympanograms on a separate piece of paper, label with patient name and date. Clearly indicate what you were measuring and the unit of measure for immittance results. E.g.:

Pressure	Admittance	Shape	Volume
-220 daPa	**0.3 ml**	**Type C**	**0.7 ml**

For flat tympanograms, do not simply write "flat" and do not use confusing, unofficial abbreviations such as "NP." Record the results as follows:

Pressure	Admittance	Shape	Volume
No Peak	**No Peak**	**Type B**	**0.7 ml**

a. Write in speech audiometry materials used, and indicate the dB level utilized. Remember that you can write in PI/PB function results and soundfield aided speech results in the appropriate boxes on the standard audiogram.

b. Fill in final masking levels.

c. Indicate any special test results, cerumen accumulation descriptions, and any important comments in the boxed “Comments” section. E.g.:

d. STAT Tone Decay:

	500	1000	2000 Hz
Right	neg	neg	pos
Left	neg	neg	neg

Cerumen Rating:

Right	nearly occluded
Left	clear

4. Aid Selection Appointment Reports (ASA)

ASA reports are required for Oregon Department of Human Services patients who require prior authorization. (Also complete a Medicaid Prior Authorization Request form for DMAP/OHP patients.

If the patient is new to this clinic, or if it has been several years since s/he was last seen here, include a speech-language statement under the background information section.

The Summary/Prognosis section must include a prognostic statement regarding the patient’s potential from amplification.

5. Aid Orientation Appointment (AOA)

Only the AOA Form is used for other AOA patients.

Complete the checklist.
Include comments and any necessary special information. (E.g.: The patient’s spouse was also oriented to care and use of the system. The patient appears to have significant memory problems and may need assistance with the aid from the nursing staff/family.)

Be complete in your description of settings. If it is a digital system, include a print out of the program and any remote control instructions.

Real ear strips must be trimmed, labeled appropriately, and fastened to a separate piece of paper.

6. Use of the Encrypted Flash Drives for Report Writing

All clinic reports are to be written using the encrypted flash drive, and used only on all HIPAA certified clinic computers.

All AuD students will be provided access to the encrypted flash drives in clinic only once they have completed their initial HIPAA training.

Reports must be saved on the encrypted flash drive using the following format:
Type of appt test date patient initials file number;
For example:
CHE 3.29.10 FD12345

Students will print out draft of report and turn in to supervisor within 48 hours of the patient appointment. The supervisor will make recommended edits and return to student. Student will then have 24 hours to completed edits and have final draft with dual signatures to the supervisor. The final draft will be stored in the patient permanent file.
See Appendix A for additional encrypted flash drive instructions.

9. Hearing Aid Dispensing & Repairs

1. Hearing Aid Orders

A price quote for the desired hearing aid is available in the hearing aid price book in the hearing aid work room.

All hearing instrument order forms should be filled out as completely as possible at the time of the aid selection (ASA). Obtain all necessary patient signatures at the time of the ASA. Encourage the patient and significant others to ask questions during the ordering process.

Complete a PEC Order Tracking form for every patient who is ordering a hearing instrument.

All hearing instrument orders, repair orders, and earmold orders are processed in the hearing aid work room. Leave orders in progress on the shelves/cubbyholes labeled with your supervisor's name on the right side of the names. Supervisors must approve all orders & paperwork before the clerical staff will process the orders.

All private pay patients are required to pay for hearing instruments at the time of the hearing aid orientation.

Private pay patients 18 years or older may, at the discretion of the supervisor, sign a medical waiver in place of obtaining a medical clearance.

Patients with DMAP/OHP or Medicaid insurance must supply any required insurance information at the time of the HAS. All third party patients are expected to provide a medical clearance form signed by their personal physicians or ENT prior to ordering the hearing instruments.

a. OHP patients 0 – 18 years of age require ENT medical clearance.
b. OHP patients 18 – 21 years of age may have the medical clearance signed by their personal physician.
c. Adult Medicaid patients $\geq$ 21 years of age, may have the medical clearance signed by their personal physician.

All patients using Medicaid coverage to obtain hearing aids must sign the "**Alternate Advising**" form, indicating they have been informed of their options regarding hearing instrument purchase through this or any other clinic of their choosing.

Patients may take our HAS test results and hearing instrument prescription to another facility. They are under no obligation to purchase their amplification systems through PEC.

Binaural amplification should be recommended for all binaural amplification candidates. Patients choosing to obtain only monaural amplification when binaural has been recommended must sign the "**Binaural Waiver**" form.

Fill out all **Manufacturer Order Forms** for ITEs as completely as possible, including all audiometric data. Manufacturers do not need patient social security numbers, however. All order forms must be completed the same day that you see the patient.

Placing the Order

Checks payable to PEC made out by patients to pay for new hearing instruments must go directly to the Pacific EarClinic Office Staff. Checks and credit card information should not be requested by the audiologist.

The Manufacturer's Order Form must indicate
"Bill To" = clinic stamp
"Ship To" = clinic stamp

In addition to the **Hearing Instrument Order Information** form, a **BTE Hearing Aid Order** form must also be completed for PEC direct dispensing BTE aid orders.

2. Hearing Instrument Repairs

Students are responsible for completing the necessary paperwork the same day as the patient's appointment. The aid, paperwork, and anything else required by the manufacturer (Eg: ear impressions, real ear test results) must be placed in the supervisor's box in the hearing aid repair workroom to be approved. Notes for the secretaries regarding repair can also be placed with the repair order.

Remakes require a new earmold impression, if over one year.

Complete a contact note to indicate the aid must be sent to "name of manufacturer" for repair, and reason for repair.

Supervisors must check the status of the aid to verify the need for repair, and verify that all the paperwork has been completed correctly before the instrument can be sent out.

Patients pay for repairs at the Pacific EarClinic front desk.

AIDS UNDER WARRANTY

Instruments in warranty are sent directly to the manufacturer. Complete the manufacturer's repair order form.

"Bill To" = "Warranty"
"Ship To" = "PEC Audiology Clinic"

AIDS OUT OF WARRANTY

Instruments out of warranty must be sent to either an "all make" repair lab, or to the original manufacturer, depending on their age. Use the manufacturer's repair form. Clarify length of warranty with the patient. If the aid was acquired through Medicaid, prior approval is required prior to ordering the aid repair.
The front office staff will manage prior approvals.

HEARING INSTRUMENTS OVER 5 YEARS OLD:

Recommend replacement rather than repair. If the patient wants to repair the aid make sure that the patient knows that replacement may be necessary in the very near future. Document, in the contact notes, that you informed the patient of this advice. Aids of this age may require "all make" repair lab services. Inform patients of the cost of both 6 and 12 month repair warranties. A 12 month repair warranty may not be available from certain manufacturers, especially for aids over 5 years old; call the manufacturer to confirm as needed. Repair costs should be paid at the time the aid is sent in whenever possible. Repair prices are different for programmable digital, non-programmable systems, and for all make repair services. Be aware that repairs requiring a new shell or faceplate will cost significantly more than a standard repair. Call the manufacturer to confirm the extra surcharge above and beyond PEC's usual repair cost before repair quoting a price to the patient.

3. Hearing Instrument Check-ins

Outgoing Hearing Instrument Orders

1. Provider fills out appropriate paperwork and enters order into Sycle.
2. Tracking Form is given to Front Desk Staff.

Incoming Hearing Instrument Orders

For new devices:

1. Front Desk Staff selects the Tracking Form from "Order Tracking Forms" file in locked cabinet.
2. Front Desk Staff emails Provider and Students the order was received and placed in hearing aid workroom on bookshelf for check-in.
3. Assemble hearing aids (e.g. domes, receivers, R/L indicators, etc.)
4. Connect aids to computer via Noah

5. Pull up patient or add in Noah if not already there
6. Pull up appropriate manufacturer module and open
7. Run EAA (full on and reference test), print it and compare to specs. Print specs for BTEs, if not already in chart
8. Program for first fit
9. Save in Noah
10. Complete warranty log & put away extra supplies in clinic stock
11. Place order in cabinet above sink
12. Faculty will approve and write chart note
13. Email Front Desk Staff the order has been checked-in and patient is ready to be scheduled
14. Front Desk Staff schedules appointment

For repairs:
1. Front Desk Staff selects the Tracking Form from "Order Tracking Forms" file in locked cabinet.
2. Front Desk Staff emails Provider and Students the order was received and placed in hearing aid workroom on bookshelf for check-in.
3. Bio check hearing aids
4. Connect aids to computer via Noah
5. Pull up patient and open last programming session
6. Run EAA (full on and reference test), print it and compare to specs. Print specs for BTEs, if not already in chart
7. Restore user settings
8. Bio check hearing aids again
9. Adjust warranty log, if appropriate
10. Place order in cabinet above sink
11. Faculty will approve and write chart note
12. Email Front Desk Staff the order has been checked-in and patient is ready to be scheduled
13. Front Desk Staff schedules appointment

Drop-off:
1. Patient fills out Drop Off form
2. Bio check hearing aids
3. Check warranty status
4. Troubleshoot aid (e.g. clean, change parts, change tubing, etc.)
5. Complete Drop Off form with warranty info, what you found, what you did and your plan of action
6. Return hearing aid to patient, if waiting
7. Write chart note

If hearing aid needs to be sent for repair:
1. Complete manufacturer forms
2. Complete router and sign
3. Write chart note
4. Give Tracking Form to Front Desk Staff

4. Hearing Instrument Returns within the Trial Period

If a patient states he/she wants to return a hearing instrument, the patient must speak with a supervisor. The reason for the return must be clearly documented. Verify that the system can still be returned within the manufacturer's allowable trial period. Systems should be returned only after a supervisor has verified that all reasonable attempts have been made to address the patient's concerns. To allow for the processing of the refund to the patient the original purchase agreement should be noted as "RFC" lined out (diagonal) signed and dated by the supervisor. The agreement should be attached to the router and brought to the front desk for processing. Circle RFC on the router.

Complete a manufacturer form, including the patient's reason for returning the system. For most manufacturers, this is the same form used to request a repair. Indicate whether the system is being returned for credit, or exchanged for another model from the manufacturer. If being exchanged, also complete an order form. Line out (diagonal line across the page) all chart documents related to the returned hearing aids.

5. Self-Assessment & Hearing Aid Benefit Scales

APHAB, COSI, HHIA, HHIE, etc.

"Abbreviated Profile of Hearing Aid Benefit"
"The NAL Patient Oriented Scale of Improvement"

These and similar forms are used primarily to compare communication abilities without and with amplification. Have patients complete the form at the time of their HAS or HAO appointment, then again during the 30-Day Re-check appointment.

SOAC/SAC

"Significant Other Assessment of Communication"
"Self-Assessment of Communication"

Use the information as part of your background information in reports, and refer to it before you begin to counsel/advise patients.

Scoring

Instructions are on the top of the form.
[(Raw Score x 2) -20] x 1.25 = __%
Add the response values (Eg: 1 = almost never). Multiply by two, then subtract 20, & then multiply by 1.25. Use the final % to determine degree of hearing handicap.

Determining Degree of Hearing Handicap

0-20%	No Handicap
21-40%	Slight Hearing Handicap
41-70%	Mild to Moderate Hearing Handicap
71-100%	Severe Hearing Handicap

Many other forms are available for this purpose. For other communication scales, see:

Geier, K. (Ed.) (1996). Handbook of self-assessment and verification measures of communication performance. Columbia, SC: Academy of Dispensing Audiologists.

6. Assistive Listening Device Needs Assessment

This questionnaire is used if needed during appointments of any type, or as part of a separate audiologic rehabilitation program to guide discussions and choice of assistive devices.

10. STUDENT & SUPERVISOR RECORDS

1. Student Records

Clock Hours for ASHA, ABA and/or State Licensure Requirements
Clock hours are recorded in Calipso/Typhon within 48 hours of the experience.

Evaluations Made by Supervisors
See "Grading Policies", supplied during practicum, internship and externship.
See Calipso/Typhon for evaluation forms.

Self-Evaluations
It is recommended that students perform a self-evaluation for themselves each semester. Students should discuss their personal goals with supervisors at the start of each semester, and ask for advice in achieving these goals.

By evaluating ourselves, we can more effectively set personal goals for improving or expanding our clinical skills, and request pertinent feedback from supervisors and colleagues. This self-evaluation process should be carried out throughout your entire professional career.

2. Supervisor Records

(See also "Supervisor Responsibilities.")

Evaluations of Students & Student Reports
See Supervisor Responsibilities. See forms in Calipso/Typhon.

Grading Recommendations
See Grading Policies given in practicum/internship and externship.

Evaluations of Supervisors Made by Students
At the end of each semester students will have the opportunity to provide an assessment of the quality of supervision provided by each of their supervisors. See form in Calipso/Typhon.

11. INSTRUMENTATION & EQUIPMENT

1. Equipment policies:

Do not move equipment from its assigned location without the express permission of your supervisor. E.g.: Do not exchange headphones between booths. The booths are calibrated for specific headphones. An electrical impedance mismatch can cause the headphones to malfunction.

Report all equipment malfunctions to your supervisor as soon as possible. Supervisors will report malfunctions to the electronics technician using a designated on-line reporting form.

Once the problem is confirmed by the supervisor, share the information about malfunctions with all other persons on clinic that day. If the malfunction is unresolved by the end of the day, leave a note about the problem for the next day's audiologists and students.

Return all equipment to its correct location immediately after using it. E.g.: Consignment hearing instruments, tapes, CD's, test manuals, equipment manuals, demonstration Dry Aid kits, earmold and impression supplies, toys, picture cards, etc.

Keep all equipment neat (E.g.: untangle cords) and clean (E.g.: throw away battery tabs; immediately put used specula into the appropriate containers.) Clean up after yourself and patients as you go through each appointment. See the Clean-Up Check List.

Do not allow any equipment to overheat. Keep air vents unobstructed.

Return all audiometers to 1000 Hz, 0 dB HL, and return talk over and monitor setting to levels appropriate for persons with normal hearing after every appointment. Be especially careful to return talk over and other intensity levels down when you finish using the booth with patients who have severe hearing impairments.

Listening Checks: A "Biologic Listening Check" is done for audiometric equipment to identify gross problems with sound quality and overall function.

Step One: Check the Audiometer

- Check all dials to make sure they move freely, but are not too loose
- General physical condition of all equipment.
- No audible clicks when controls are manipulated (a normal hearing listener should not detect any at 1 meter).

Step Two: Phone Check (Headphones and Insert Earphones)

- Play a continuous pure tone:
  - Set to 50 dB HL. Scroll across frequencies. They should all be roughly the same loudness.
  - Wiggle the cords all the way from the transducer, back to the wall. You should not hear intermittency or static.
  - Reduce intensity to threshold, listening for any hum or static, clicks or pops, intermittency, and appropriate level changes.
  - Increase to 70 dB HL and listen for distortion.
  - Check for cracks, splits, wear & tear.
- Play other stimuli:
  - At 50 dB for each stimulus: Broad band noise, narrowband noise at 1 kHz, speech noise.
  - Listen for distortion or intermittency for each.
- Check for crosstalk:
  - Unplug one phone. Set the other to 70 dB HL. You should not be able to hear any signal in the unplugged phone.

Step Three: Phone check, continued

Bone Oscillator

- Listen across frequencies at 30 dB HL, wiggle cord to check for level and distortion. Also increase to 50 and listen for distortion.
  - Repeat process at 50dB HL.
  - Check for cracks, splits, wear & tear.
  -

Step Four: Threshold Check

- At least once a week:
  - Test yourself, or someone in your office to see if thresholds are consistent.
  - If there is a problem:
    - Check the levels with a SLM or your real-ear equipment. If you are outside of tolerance levels, have the equipment recalibrated.

Step Five: Other Equipment

- As part of your daily check, run a tympanogram and an OAE on yourself and/or using a 2cc cavity.
  - Your tympanogram should look the same each day, unless you have a middle ear problem.
  - The 2cc cavity should show:
    - Exactly 2cc on volume measures on tymps, and should easily obtain a seal.
    - No otoacoustic emissions
- Also check the equipment for cracked tubing, broken parts, insufficient tips, etc.
- Complete Daily Listening Check form in each room for that piece of equipment.

2. Audiology equipment care and repair

Please remember that virtually all audiology instrumentation is expensive and sensitive to damage based on the way in which it is utilized. Broken equipment and supplies are a problem to all of the professionals who rely on them, as well as to your patients. It is every audiologist and student's responsibility to utilize equipment with utmost care so we can ensure the best quality of service for patients, and avoid unnecessary expense and needless delays in service.

Common Problems to Avoid:

Cutting cables on portable audiometers by closing the cables in sharp hinges: Always be sure to position portable audiometer power cords and headphone cables carefully in their designated slots.

Incorrectly winding headphone cables on portable equipment: Shorten the headset using some slack in the cords as you draw them up between the earphone cushions. Then wind the cords around the headband, keeping the cords slack.

Pulling cords: Never hold cords when unplugging anything; unplug equipment gently using the plugs, not cords. If a piece of equipment does not have a visible plug, check the opposite end of the cord to make sure you are unplugging it at the correct location. When in doubt, ask your supervisor for help.

Leaving equipment in cold or hot places: Never leave equipment stored in a car in either warm or cold weather. Extreme temperatures can damage equipment or necessitate recalibration.

Overheating equipment: Never block the vents or fans on any equipment. E.g.: Do not place GSI-33 or Tympstar VII shoulder sandbags on top of the unit. Turn monitors down on the immittance bridges when not in use so that images do not permanently burn into the screens. Turn off all monitors, computers, and other equipment every night. Turn off the sonic cleaner every night when your clean-up duties are done.

Crushing/stepping on probe tips and other equipment: Do not allow immittance probe tips, OAE cords, audiometer headphones, or the ends of insert phones to lie on the floor, because it is easy to accidentally step on them. Hang them in their proper locations.

Burning out lights & monitors: Turn off lights on equipment when not in use, including otolights, otoscopes, magnifier lights, and the Star Lab light. Turn down the lights on the video-otoscope and GSI-33 immittance equipment. Turn off computer monitors every night.

Breaking or bending tweezers: The pointed ends of the special tweezers used for changing waxsprings should be protected with their red, rubber protectors when not in use. Do not use these tweezers for anything other than changing waxsprings.

Chipping, dislodging, bending, & breaking equipment: Never allow equipment to fall or to bump against a wall, furniture, or other. Do not allow patients, esp. children, to hold or bump the equipment. Put otoscopes in a safe place where they will not fall if bumped when not in use. Special Note: The video-otoscope is especially sensitive to damage from bumping the lens. Always protect the video-otoscope camera lens

with its blue plastic cap and turn down its light source all the way when it is not in use.

Damaging the Audioscan microphone: Do not transport the Audioscan with anything inside its sound chamber. Store all 3 couplers and the power cord carefully in the lid. Put all other Audioscan accessories in the designated plastic container and pad this during transport so it does not rattle against the keypad.

Punctures: Store sharp objects safely in the correct sections of the instrument dividers in each room.

Food: Never eat or drink around clinic computers or other equipment.

Damaging Compact Disks: Never leave CDs laying anywhere other than in their cases or inside a CD player.

3. Reporting equipment & hearing instrument problems

Equipment
Double check setting on equipment. Report problems as soon as possible to the supervisor on duty, who will in turn alert the SIMLab manager regarding verified equipment malfunctions. Your supervisor is responsible for completing an on-line repair request form for the Electronics Technician. If there is a need for emergency repairs, the clinic secretary can page the Electronics Technician.

Avoid turning equipment on and off throughout the day. Most audiometric equipment is designed to be turned on only once per day, and left on for the entire day. If computerized equipment overheats or freezes up, it may be necessary to turn it off and then on again before you can proceed with using it. Report these types of problems to your supervisor so that equipment problems can be shared with others, esp. the Electronics Technician, and tracked.

New or Recently Repaired Hearing Aids
Report all problems to the supervisor on duty. If the supervisor verifies the problem, complete a manufacturer repair form.

ALD's
Report all problems to the supervisor on duty.

Loaner Hearing Instruments
Report all problems to the supervisor on duty.

Low Supplies & Forms
●Forms: Give to designated supervisor for copying.
●Supplies: Note the shortage for items that require a purchase order (charged items) on the whiteboard in hearing aid workroom with part number, color, size, style, etc.
●Supplies: Items that are free (battery doors, microphone covers, wax springs, etc.) can be ordered by the student and should be noted on the green supply tracking sheet on the cabinet in the hearing aid workroom.

4. Clean-up guidelines

Please remember to do the following throughout your clinic day:

Keep cords untangled.

Do not put battery tabs on tables, equipment, etc. Put them in the trash or on the battery package.

Remove all specula and probe tips from equipment when finished with them, and leave in appropriate containers marked for used tips.

Turn immittance screens down when not in use so that the image will not burn in place.

Keep batteries, screwdrivers, hearing aid supplies, putty for hearing aid analyzers, and all other supplies in their appropriate containers when not in use.

Do not leave batteries on metal trays or on top of battery testers where they may discharge their energy prematurely.

Do not remove demonstration dry aid kits, scissors, pens, battery testers, tubing expanders, or otoscopes from their respective rooms.

Return all items to their rightful place when not in use. This includes all test manuals, tapes & CD's, consignment systems, ALD's, toys & pictures, containers for used specula, etc.

Report problems to the supervisor on duty, who will in turn follow up as needed.

End of the Day Clean-up Protocol:

All students will be expected to help the clinic stay clean and as nice looking as possible for the community within which we work. There are two people who are assigned for clean-up on a daily basis. That clean-up occurs at the end of your clinic day. However, after **each** patient that you have worked with, you will need to clean up after yourselves so that the next patient can be seen in a tidy space. Put away items after you work with them.

Sporox is one of the disinfectants we have in stock. It is used for cleaning our used specula and immittance probe tips. It should be used full strength in our cleaning containers. "Green soap" mixed with water is also available for use in the metal tool container. These disinfectants are located under the sink space in the hearing aid workroom.

Specific clean-up requirements:
Allow yourself about 15-20 minutes for clean up at the end of the clinic day. Duties per area are as follows:

a. Audiology Booth Areas:
   a) Straighten furniture
   b) Wipe off surfaces and door handles with disinfecting wipes
   c) Recharge FM equipment
   d) Turn off all equipment and lights
   e) Make sure CDs and test booth binders are in appropriate rooms
   f) Recharge otoscopes on Thursdays (not daily)
   g) Used tips go into Sporox cleaning containers then are replaced into clean jars

b. EP Rooms: (VNG)
   a) Make sure all equipment and lights are off as a final check. These rooms should already be cleaned by those conducting appointments.
   b) Responsibilities for audiologists and students conducting appointments:
      1. VNG/ENG Room
         1. Clean the irrigator tip with an audio wipe or soap and water. The tip can be changed as needed with a size 13 tube.
         2. Secure VNG goggles in the bubble wrap on the table.
         3. Wet towels must be taken, washed, and returned to clinic the next day. There are large paper towels in the cabinet to use, if desired.
         4. Raise the irrigator lid and cover it with the plastic cover.
         5. Wash all basins with soap and water and rinse.
      2. EP Rooms
         1. Use soap and water for cleaning paste from electrodes.

2. Wipe chair and surfaces.
3. Return cords/electrodes to hooks/drawers.

c. Amplification Rooms:
   a) Organize cords into labeled drawers/plastic containers
   b) Turn off all equipment and lights
   c) Wipe off all surfaces with disinfecting wipes
   d) Used tips go into the Sporox cleaning containers then are replaced into clean jars
   e) Recharge otoscopes on Thursdays (not daily)

d. Earmold and Repair Rooms:
   a) Clean the used tips in the Sporox cleaning containers
   b) Metal tool container is filled with green soap and water. Soak tools for 15 minutes. Rinse and replace in drawers.
   c) Wipe all surfaces
   d) Turn off all equipment and lights
   e) Put all tools away
   f) To dispose of Sporox at the end of the 21 day use cycle, neutralize Sporox with one scoop of baking soda prior to disposal in the sink or a drain.

Anyone aware of any item running low will need to write that item down and submit it to the Audiology Operations Manager with a date and a room number.

5. Loaner Hearing Instruments:

The loaner hearing instruments are located in a cabinet in hearing aid workroom in small, plastic drawers. The loaner hearing aid procedure is located in the same room.

6. Assistive Listening Devices:

Students are required to acquaint themselves with all ALD equipment, so that equipment can easily and quickly be demonstrated when needed.

1. Prepare in advance of ALD consultations by making sure batteries are available and the equipment is working.

2. Report all problems to your supervisor.

12. WORKING WITH SPECIAL POPULATIONS

1. Pediatric Population

Also see the guidelines for counseling and recommendations.

Take a calm and direct approach. Tell children what to do; do not ask a child to do something. Use clear instructions and examples for target behavior.

Eliminate undue distractions from the testing/habilitation environment.

Simplify your language as much as necessary without “talking down” to the patient. Avoid using a “syrupy” or overly condescending tone of voice. Also try to avoid speaking too quickly.

Provide positive gestures, verbal and social reinforcement. Encourage appropriate social behavior such as smiles, nods, or handshakes. Avoid using too many distracting gestures that unduly invade personal space.

Avoid making assumptions that a child will be unable to perform a specific test task. Children will often be able to perform a “higher level” task if you give them a chance to do so, and provide adequate models and training. Look at each child as an individual, and consider your choice of procedures in light of the test context/situation.

It may be advisable to begin with speech audiometry, and get pure tone or warble tone thresholds later. Speech recognition or detection threshold tasks may be less intimidating or confusing than tone detection tasks, and may help establish a rapport with the child.

Test a single high frequency (2, 3 or 4 KHz) in each ear, then a low frequency (500 Hz) in each ear, before filling in the remaining information. This allows you to identify a unilateral problem and estimate the audiometric slope early on, before the patient fatigues. Switching back & forth between ears and between high & low frequencies using pulse tones also helps to keep the attention and motivation of many children so that you can get more complete test results. It is often advisable to use a “down 20, up 10” approach to a pediatric threshold search, rather than a “down 10, up 5” approach, in order to find a threshold more expediently for children with limited attention spans.

It may be advisable to have parents/guardians in the test room for some children, and inadvisable for other children. Consider each case individually, and discuss these needs with your supervisor.

When counseling, avoid talking about the child as if s/he is not in the room. If the child is able to comprehend anything, include him/her in the conversation.

Obtain otoacoustic emissions and immittance battery test results whenever possible for pediatric patients.

2. Developmentally Disabled Population

Refer to Pediatric Test Protocol.

If your patient is over 18 years of age, refer to him/her by last name in reports.

Be careful to use language acceptable to the facility that referred this patient. Avoid terms that refer to this person in a demeaning or childish way (E.g.: kid/kiddo, honey, sweetheart.)

Be patient. Allow greater time for responses to tasks than customary.

Take a calm and direct approach. Tell developmentally delayed patients what to do, rather than requesting/asking. Use clear instructions and examples for target behavior.

Eliminate undue distractions from the testing/habilitation environment.

Simplify your language as much as necessary without “talking down” to the patient. Avoid using a condescending or alarming tone of voice.

It may be advisable to begin with speech audiometry, and get pure tone or warble tone thresholds later. Speech recognition or detection threshold tasks may be less intimidating or confusing than tone detection tasks, and may help establish a rapport with the patient.

Test a single high frequency (2, 3 or 4 KHz) in each ear, then a low frequency (500 Hz) in each ear, before filling in the remaining information. This allows you to identify a unilateral problem and estimate the audiometric slope early on, before the patient has the chance to fatigue. Switching back & forth between ears and between high & low frequencies using pulse tones also helps to keep the attention and motivation of many persons with developmental disabilities so that you can get more complete test results.

Obtain otoacoustic emissions and immittance battery test results whenever possible.

Provide positive gestures, verbal and social reinforcement. Discourage hugs, but encourage more appropriate social behavior such as smiles, nods, or handshakes.

Do not work alone if your patient has a known history of serious maladaptive behavior.

It may be advisable to have a significant other or familiar staff person in the test room for some patients, and inadvisable for others.

Include staff or family observations about the patient's auditory behaviors as part of the case history.

When counseling, avoid talking about the patient as if s/he is not in the room. If the patient is able to comprehend anything, include him/her in the conversation.

If the patient is from a facility that requires an on-the-spot- summary of the evaluation/session before leaving our clinic, make sure your supervisor has read and signed the form. (Your supervisor may complete the form her/himself.) Get a photocopy of the completed form before returning it to the caregiver.

3. Non-English Speaking Population

Use a credentialed interpreter. Establish eye contact, if culturally appropriate, with the patient and speak directly to the patient. The interpreter should be expected to convey the information between the patient and you objectively and confidentially.

Keep cultural differences in mind. E.g.: Eye contact, especially between people of different ages or genders, is considered undesirable in some cultures, as is close physical proximity.

Allow extra time for testing and counseling. When possible, send necessary forms to the patient in advance of the appointment to facilitate completion.

Some of the first vocabulary items learned in a second language are numbers. If the patient is able to count to at least 5 in English or you can count in his/her native language, try having the non-English speaking patient count the number of tones presented, rather than simply raising a hand to identify a tone. This often helps avoid too many false positive responses if the patient is too eager to please the examiner, or if s/he does not truly comprehend the pure tone threshold task.

Use other objective measures such as otoacoustic emissions, immittance batteries, and real-ear measures whenever possible.

Use loudness growth measures, real-ear testing, warble tone functional gain measures, translated versions of benefit scales such as COSI, and the patients subjective reports about sound quality and clarity of speech to evaluate benefit from amplification. These can be especially useful if word recognition testing is not considered valid or feasible.

If possible, refer the patient to an audiologist who is at least semi-fluent in the patient's native language.

4. Religious & Cultural Minority Populations

Be cognizant and respectful of cultural differences. If unsure of proper social/behavioral protocols, tactfully ask patients and their significant others for guidance.

Read about the patient's culture/region, but avoid making over-generalizations from what you read. Use multiple source materials if possible. Remember that not all cultures perceive or label disorders or disabilities in the same way.

5. Populations with Psychiatric or Emotional Impairment

Obtain advice or assistance from your supervisor, and if available, the Community Mental Health consultant to our clinic or a supervisor from the Psychology Training and Consultation Center.

Use a calm direct approach. Do not speak quickly. Allow plenty of time for patients to process information or instructions you present. Also allow time for breaks as needed.

Use reflective listening. Keep tissues available.

Carefully observe policies for maintenance of confidentiality.

6. Populations with Dementia

Observe the same procedures used for persons with developmental disabilities, and psychiatric and emotional impairments.

Allow plenty of time for questions and discussion with the patient's significant others.

7. Populations with Speech-Language Impairments

Choose speech audiometry materials cautiously. Picture or object pointing tasks may be more appropriate than speech repetition tasks in some cases.

Use extra examples when orienting patients to a task, in order to facilitate the patient's comprehension.

Remember that the correlation between speech and language skills is often weak. The patient who repeats well and has relatively good speech intelligibility may have poor comprehension. (This is especially true of many cochlear implant users.) The patient who has very poor speech intelligibility may actually have good language comprehension. When in doubt, confirm comprehension.

8. Blind or Low Vision Populations

Use careful verbal description, verbal analogies, verbal repetition, and paraphrasing, and a clear unhurried speech pattern.

Allow plenty of time for tactile learning about hearing instruments. Provide extra practice for hearing instrument care and maintenance tasks. When gesturing, movements should be relatively large, but make sure your movements are meaningful and not distracting.

Written materials require large, clear, block print. If needed, use the enlarging function on the photocopy machine to blow up the manufacturer hearing instrument owner's manual or other important written materials.

Show the patient how to use a towel over a shallow bowl or a square of wood covered with fun-task putty when handling his/her hearing aid for cleaning or battery changing.

9. Populations with other Neurological or Orthopedic Impairments

(E.g.: Persons with cerebral palsy or Parkinson's disease; Persons with Upper extremity amputations)

Use careful verbal descriptions, analogies, verbal repetition and paraphrasing, and a clear, unhurried speech pattern. Do not let the patient feel rushed.

Allow plenty of time for tactile learning about hearing instruments. Provide extra practice for hearing instrument care and maintenance tasks. When gesturing, movements should be relatively large, but make sure your movements are meaningful and not distracting.

Be flexible in your thinking. Offer coping strategies appropriate to the individual patient. E.g.: Patients who have a significant hand/arm tremor may need to brace themselves against a wall, table top, bed, or other surface when removing/inserting hearing instruments. A response button may be better than a hand raise for pure tone testing. Consider hearing instruments with a remote control.

Show the patient how to use a towel over a shallow bowl or a square of wood covered with fun-task putty when handling his/her hearing aid for cleaning or battery changing.

APPENDIX A

STUDENT RESOURCES

School of Audiology Faculty/Staff Contact List
Emergency Action Plan for the Pacific EarClinic

Evaluations:

Student Outcome Measures:
*See CALIPSO/Typhon for all student evaluations

Faculty/preceptor Evaluations:
*See CALIPSO/Typhon

Flash drive:
Instructions for use

Pacific University School of Audiology
Faculty/Staff Contact List – Student Copy
(revised 7/15/2015)

Pacific University Oregon
SCHOOL of AUDIOLOGY

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Victoria Keetay, PhD
Professor and Director, School of Audiology
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Clinical Education Specialist
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shamra.clark@pacificu.edu
541-485-6812 ext. 3914 (office)

Open
Manager of Administrative Services
Suite 4450, Room 4452

SCHOOL ADDRESS
Pacific University, School of Audiology
Tuality Seventh Avenue Medical Plaza
333 SE 7th Avenue, Suite 4450
Hillsboro, OR 97123

FAX
503-924-6704

CONFERENCE ROOM
503-352-2695

CLINIC
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Tuality Seventh Avenue Medical Plaza
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Hillsboro, OR 97123
www.pacificearclinic.com
earclinic@pacificu.edu
503-352-2692

Open
Clinic Operations Manager
Pacific EarClinic
Suite 4150, Room 4181

Stephanie Rodriguez
Patient Care Coordinator
Pacific EarClinic
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Assistant Director of Graduate and Professional Programs Admissions
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FACULTY →

FACULTY

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Leigh G. Schaid, AuD
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Suite 4450, Room 4455
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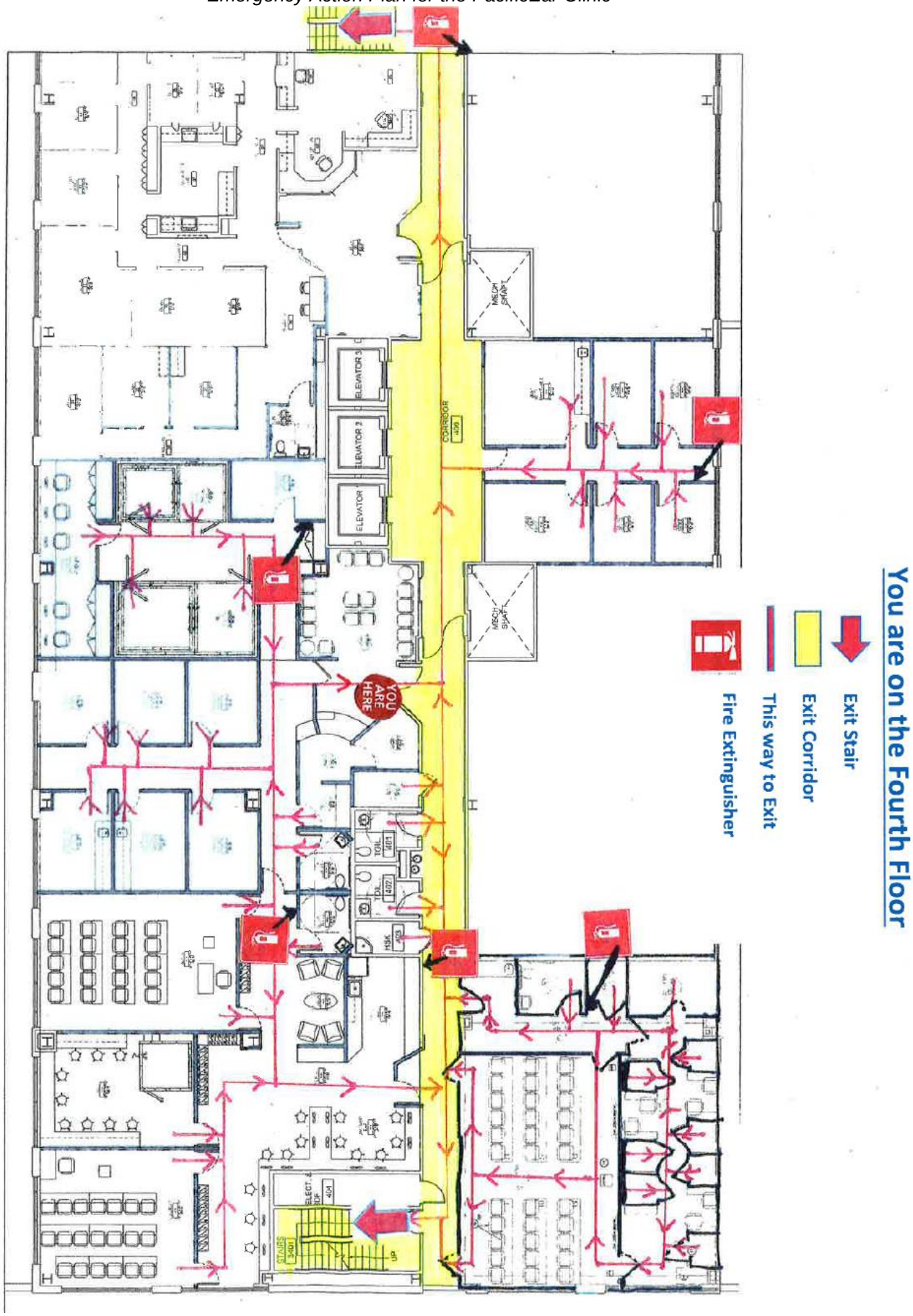
503-352-2688 (office)

Trent Westrick, AuD
Assistant Professor
Suite 4450, Room 4454
trent.westrick@pacificu.edu
503-352-2694 (office)


You are on the Fourth Floor
Exit Stair
Exit Corridor
This way to Exit
Fire Extinguisher
YOU ARE HERE
CORRIDOR
ELEVATOR 1
ELEVATOR 2
ELEVATOR 3
MECH SHAFT
MECH SHAFT
TOIL
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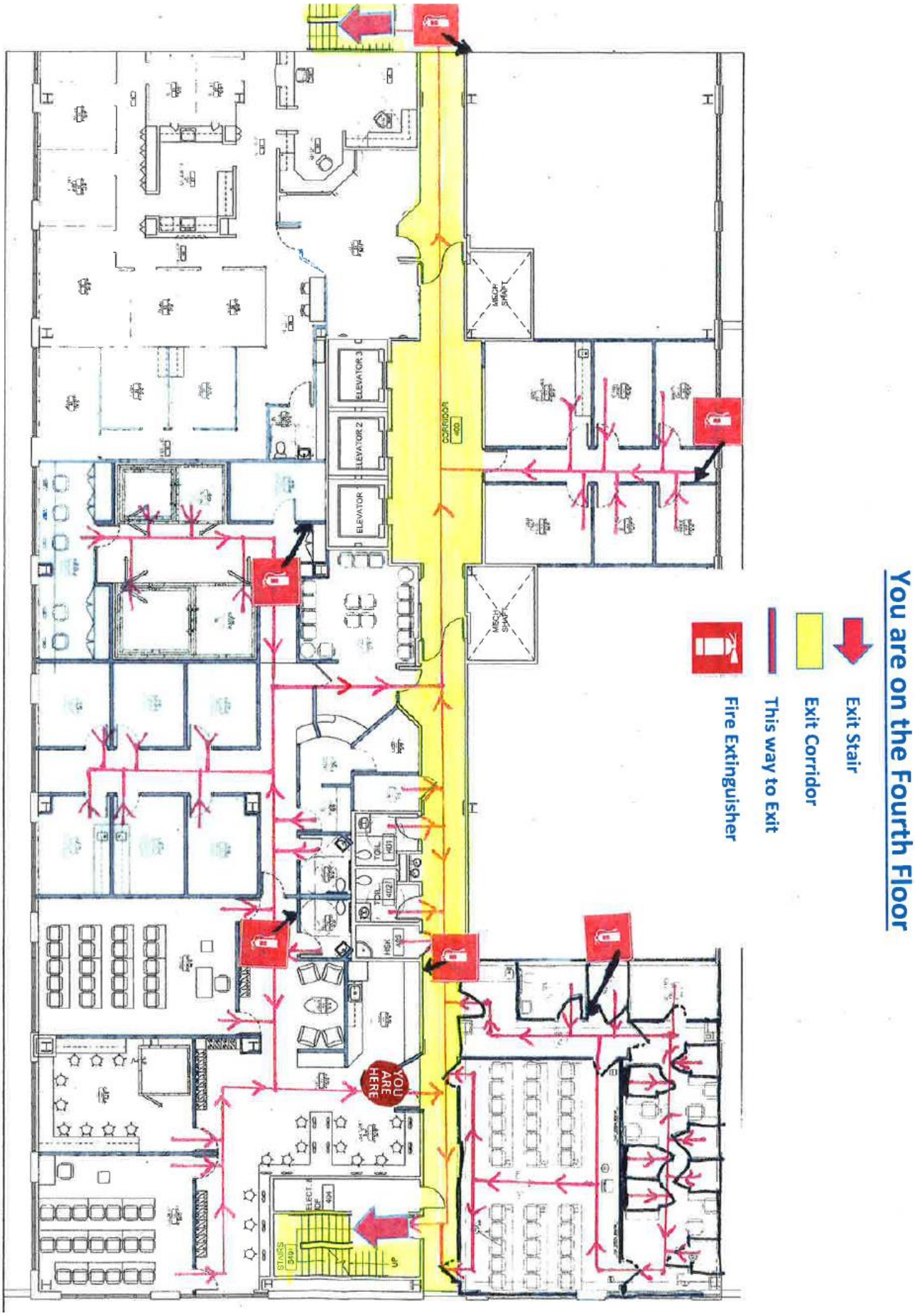
ELECT
STAIRS
EXIT


You are on the Fourth Floor
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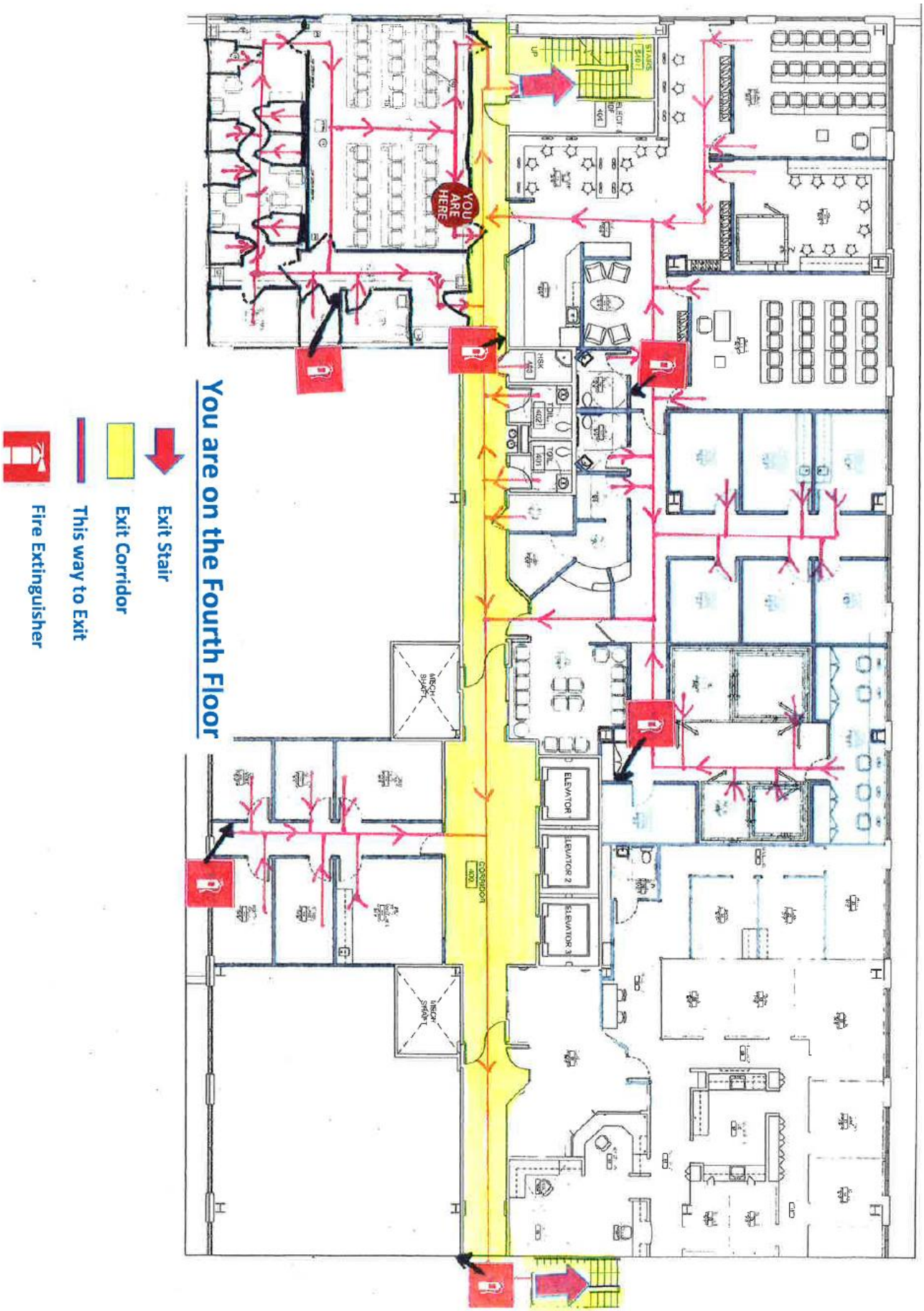
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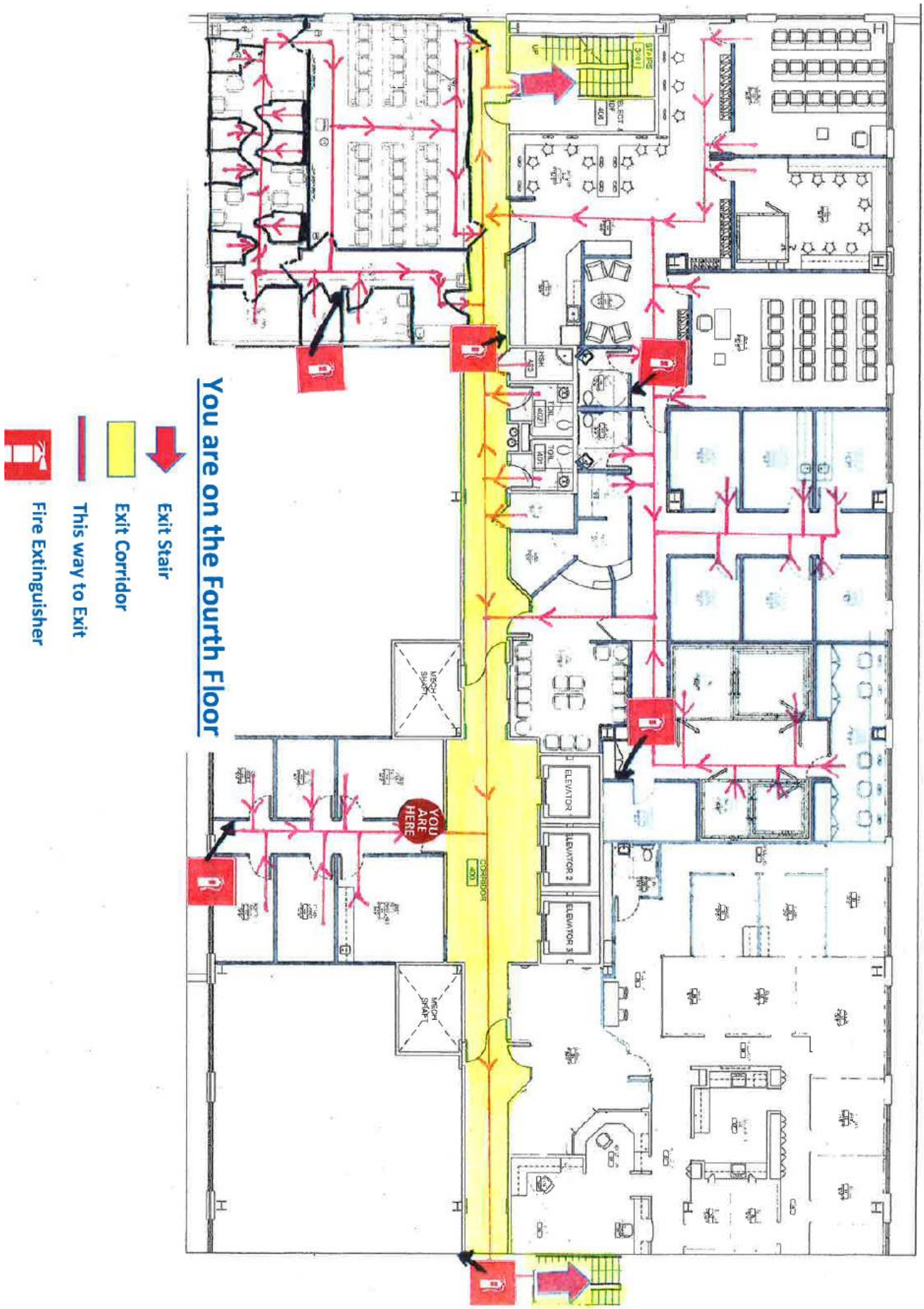
Exit Stair
Exit Corridor
This way to Exit
Fire Extinguisher
YOU ARE HERE
STAIRS
ELEVATOR
ELEVATOR 2
ELEVATOR 3
CORRIDOR
MECH SHAFT
MECH SHAFT


You are on the Fourth Floor
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Fire Extinguisher
YOU ARE HERE
ELEVATOR 1
ELEVATOR 2
ELEVATOR 3
CORRIDOR
MECH SHAFT
STAIRS

Pacific EarClinic Audiology Encrypted flash drive Documentation

This document summarized and describes the details of the audiology encrypted flash drive for supervisors and students to securely document patient information.

Background:

Students in the audiology program submit regular clinical documentation to their supervisors for review. A secure file system which allows the students' the ability to create reports in the clinic and save to an encrypted flash drive audiology folder from HIPAA secured clinical workstations.

Students are assigned an encrypted flash drive when in PEC and will be used on PEC computers only. Encrypted flash drive passwords will be issued. If a password is forgotten a new one can be initiated, however al information saved on flash drive will be erased in this process and cannot be retrieved. If the flash drive is taken out of PEC a student will be disciplined for improper usage of encrypted flash drive.

Some details:

1. The encrypted flash drive is only accessible from certified HIPAA computers in the Pacific EarClinic.

2. The only students that have access are those that have passed the HIPAA training and been given access.

3. The students have access to create, edit and save documents.

All students can create and append documents and folders on their encrypted flash drive, and this should be the primary working space for student documentation before it is submitted to the supervisor. Students must remember their passwords to use the encrypted flash drive. If a new password is to be created all work saved on the encrypted flash drive will be erased and cannot be restored.

Please note: Once a student saves the document, it should be printed and placed in supervisors folders in front office of PEC for review. After document in placed in supervisor's folder the student will email the supervisor that the first draft is completed. First draft will be due within 48 hours of patient appointment.

APPENDIX B

CLINIC FORMS

Informed Consent
Notes on Contact Notes

Sample Forms
(Located in Clinic Manual Binder in Hearing aid workroom)

Report Templates
(Located at: Clinical Moodle course page)

Tuality 7th Avenue Medical Plaza
333 SE 7th Avenue, Suite 4150, Hillsboro, OR 97123
Phone: 503-352-2692 | Fax: 503-924-6704
Email: earclinic@pacificu.edu
Website: www.pacificearclinic.com

AUTHORIZATION FOR TREATMENT, AUTHORIZATION FOR INTERPRETING SERVICES, RELEASE OF INFORMATION AND HIPAA ACKNOWLEDGEMENT

Release of Information

I give permission to Pacific EarClinic to disclose all or any part of my medical and/or billing records to any insurance company, third party payer (including my employer, if applicable, for example, in worker's compensation cases), or collection agency which may be responsible for payment of Pacific EarClinic charges on my behalf or for collecting unpaid balances from the responsible parties. I further authorize such disclosures to any of my other treating health care providers as needed for treatment or billing/payment purposes. Pacific EarClinic will release information as permitted by law and/or HIPAA regulations.

HIPAA Acknowledgement

I understand that as part of my health care, this facility originates and maintains health records describing my health history, symptoms, examination and test results, diagnosis, treatment and any plans for future care or treatment. I acknowledge that I have been provided with and understand that Pacific EarClinic's **Notice of Privacy Practices** provides a complete description of the uses and disclosures of my health information. I understand that:

- I have the right to review the facility's Notice of Privacy Practices prior to signing this acknowledgement;
- This facility reserves the right to change their Notice of Privacy Practices and prior to implementation of this will mail a copy of any revised notice to the address I've provided if requested.

Authorization of Treatment and Procedures:

I hereby agree to and give consent to be treated by Pacific EarClinic. I understand that healthcare personnel in training may participate in or be present at various times throughout the course of my care at Pacific EarClinic. Such personnel are under the supervision of licensed audiologists. I have no objection to the involvement of students in my care and I hereby provide consent to such involvement.

Authorization for Interpreting Services

If an interpreter should be scheduled, I hereby agree to and give consent for my information to be shared with such personnel.

Pacific EarClinic is a training facility; therefore, at times patient visits may be videotaped or recorded for training purposes only. If you do NOT wish to be videotaped or recorded please initial here _____

By signing below I acknowledge and understand the policies of Pacific EarClinic described above.

Patient Signature _____ Date: _____
(Parent/Legal Guardian)

Notes on Contact Notes

1) Always start the dated line with the type of appointment (ex. ACA, CHE, DO).

2) If hearing aids were involved, follow the type of appointment with a full identification of the hearing aid (Ex. ACA. Siemens ITE, Music Pro (#ON123456L and # ON123456R). Siemens identifies the right 'vs.' left in the serial #, for other manufacturers you will need to identify the right 'vs.' left. {Ex. AOA. ReSound Air BTE left (#09993245) and right (#095567234)…}.

3) If aid is dropped off (DO) follow the hearing aid identification with the complaint noted on the router. (Ex. DO. Left Unitron AOHP, ITE (#02346789) with complaint of intermittency). If there is no listed complaint note that! (ex. DO. Left Unitron AOHP, ITE (#02346789) with no reported complaint.).

4) If the aid is coming back from the manufacturer (new or repair) begin the chart note with the hearing aid information [Ex. Phonak, Savia ITC left (#05099871) and right (#057865423) in from manufacturer.]. or [Oticon, Digi Focus II, left ITC (#0345785) back from repair].

5) When checking new aids or repaired aids note how the hearing aid(s) sound (Bio Check or listening check) and what the EAA looked like. [Ex. Phonak, left Amio ITE (303024567) back from repair. Listening check good, EAA meeting specs….]. Include a copy of the EAA if it does not meet specs.

6) Always note the end settings of the hearing aid [Ex. Oticon, GO, BTE (left #0598785 and right #05678240) in from manufacturer. Bio check good, EAA met specs. Aids set to first fit. Please call to schedule AOA]. or [Oticon, BTE (left #0598785 and right #05678240) in from repair. Bio check good, EAA met specs. Aids set to previous user settings from 11/2/04. Please call to schedule ACA]. Always print the settings for first fit and label as "First Fit", you only need to print the current user settings if they are not in the chart.

7) Don't use white-out to correct chart note. Either re-write (if possible) or cross out with a single line and initial. Sign your name at the end of the line, leaving space for your supervisor's name. Line out any empty space on the line prior to your signature. [Ex. Oticon, BTE (right #05678240) in from repair. Bio check good, EAA met specs. Aids set to previous user settings. Please call to schedule ACA----------Z. Kool/]

8) The content of the chart note should follow the basic SOAP format:

S= Subjective. The patient complaint, problem noted or reason for the visit.
O= Objective. What was done to verify the complaint (EAA, visual inspection…)
A= Assessment. What results were obtained, what's the final diagnosis
P= Plan. What will be done, what is the plan of action.

APPENDIX C

AUDIOLOGY OPERATIONAL POLICIES AND PROCEDURES

RESOURCES:
(See links below)

Scope of Practice in Audiology – *AAA*

- http://www.audiology.org/publications-resources/document-library/scope-practice

Scope of Practice in Audiology – *ASHA*

- http://www.asha.org/policy/SP2004-00192.htm

Preferred Practice Patterns for the Profession of Audiology – *ASHA*

- http://www.asha.org/policy/PP2006-00274.htm

Code of Ethics for Audiology – *AAA*
Code of Ethics for Audiology – *ASHA*
Links to Professional Codes of Ethics, Scope of Practice & Oregon Licensing Laws
Patient Bill of Rights
Essential functions
Internal File Audit
Approved Abbreviations and Acronyms

American Academy of Audiology
Code of Ethics
(Highlighted Changes Effective April 2011)

Preamble
The Code of Ethics of the American Academy of Audiology specifies professional standards that allow for the proper discharge of audiologists' responsibilities to those served, and that protect the integrity of the profession. The Code of Ethics consists of two parts. The first part, the Statement of Principles and Rules, presents precepts that members (all categories of members, including Student Members) of the Academy agree to uphold. The second part, the Procedures, provides the process that enables enforcement of the Principles and Rules.

PART I. Statement of Principles and Rules
PRINCIPLE 1: Members shall provide professional services and conduct research with honesty and compassion, and shall respect the dignity, worth, and rights of those served.
Rule la: Individuals shall not limit the delivery of professional services on any basis that is unjustifiable or irrelevant to the need for the potential benefit from such services.
Rule 1b: Individuals shall not provide services except in a professional relationship, and shall not discriminate in the provision of services to individuals on the basis of sex, race, religion, national origin, sexual orientation, or general health.

PRINCIPLE 2: Members shall maintain high standards of professional competence in rendering services.
Rule 2a: Members shall provide only those professional services for which they are qualified by education and experience.
Rule 2b: Individuals shall use available resources, including referrals to other specialists, and shall not give or accept benefits or items of value for receiving or making referrals.
Rule 2c: Individuals shall exercise all reasonable precautions to avoid injury to persons in the delivery of professional services or execution of research.
Rule 2d: Individuals shall provide appropriate supervision and assume full responsibility for services delegated to supportive personnel. Individuals shall not delegate any service requiring professional competence to unqualified persons.
Rule 2e: Individuals shall not knowingly permit personnel under their direct or indirect supervision to engage in any practice that is a violation of the Code of Ethics.
Rule 2f: Individuals shall maintain professional competence, including participation in continuing education.

PRINCIPLE 3: Members shall maintain the confidentiality of the information and records of those receiving services or involved in research.
Rule 3a: Individuals shall not reveal to unauthorized persons any professional or personal information obtained from the person served professionally, unless required by law.

PRINCIPLE 4: Members shall provide only services and products that are in the best interest of those served.
Rule 4a: Individuals shall not exploit persons in the delivery of professional services.
Rule 4b: Individuals shall not charge for services not rendered.
Rule 4c: Individuals shall not participate in activities that constitute a conflict of professional interest.
Rule 4d: Individuals using investigational procedures with human participants or prospectively collecting research data from human participants shall obtain full informed consent from the participants or legal representatives. Members conducting research with human participants or animals shall follow accepted standards, such as those promulgated in the current Responsible Conduct of Research (current edition, 2009) by the U.S. Office of Research Integrity.

PRINCIPLE 5: Members shall provide accurate information about the nature and management of communicative disorders and about the services and products offered.
Rule 5a: Individuals shall provide persons served with the information a reasonable person would want to know about

the nature and possible effects of services rendered, or products provided or research being conducted.
Rule 5b: Individuals may make a statement of prognosis, but shall not guarantee results, mislead, or misinform persons served or studied.
Rule 5c: Individuals shall conduct and report product-related research only according to accepted standards of research practice.
Rule 5d: Individuals shall not carry out teaching or research activities in a manner that constitutes an invasion of privacy, or that fails to inform persons fully about the nature and possible effects of these activities, affording all persons informed free choice of participation.
Rule 5e: Individuals shall maintain accurate documentation of services rendered according to accepted medical, legal, and professional standards and requirements.
PRINCIPLE 6: Members shall comply with the ethical standards of the Academy with regard to public statements or publication.
Rule 6a: Individuals shall not misrepresent their educational degrees, training, credentials, or competence. Only degrees earned from regionally accredited institutions in which training was obtained in audiology, or a directly related discipline, may be used in public statements concerning professional services.
Rule 6b: Individuals' public statements about professional services, products, or research results shall not contain representations or claims that are false, misleading, or deceptive.

PRINCIPLE 7: Members shall honor their responsibilities to the public and to professional colleagues.
Rule 7a: Individuals shall not use professional or commercial affiliations in any way that would limit services to or mislead patients or colleagues.
Rule 7b: Individuals shall inform colleagues and the public in an objective manner consistent with professional standards about products and services they have developed or research they have conducted.
PRINCIPLE 8: Members shall uphold the dignity of the profession and freely accept the Academy's self-imposed standards.
Rule 8a: Individuals shall not violate these Principles and Rules, nor attempt to circumvent them.
Rule 8b: Individuals shall not engage in dishonesty or illegal conduct that adversely reflects on the profession.
Rule 8c: Individuals shall inform the Ethical Practices Committee when there are reasons to believe that a member of the Academy may have violated the Code of Ethics.
Rule 8d: Individuals shall fully cooperate with reviews being conducted by the Ethical Practices Committee in any matter related to the Code of Ethics.

American Speech-Language-Hearing Association

Code of Ethics

Preamble

The preservation of the highest standards of integrity and ethical principles is vital to the responsible discharge of obligations by speech-language pathologists, audiologists, and speech, language, and hearing scientists. This Code of Ethics sets forth the fundamental principles and rules considered essential to this purpose.

Every individual who is (a) a member of the American Speech-Language-Hearing Association, whether certified or not, (b) a nonmember holding the Certificate of Clinical Competence from the Association, (c) an applicant for membership or certification, or (d) a Clinical Fellow seeking to fulfill standards for certification shall abide by this Code of Ethics.

Any violation of the spirit and purpose of this Code shall be considered unethical. Failure to specify any particular responsibility or practice in this Code of Ethics shall not be construed as denial of the existence of such responsibilities or practices.

The fundamentals of ethical conduct are described by Principles of Ethics and by Rules of Ethics as they relate to the responsibility to persons served, the public, speech-language pathologists, audiologists, and speech, language, and hearing scientists, and to the conduct of research and scholarly activities.

Principles of Ethics, aspirational and inspirational in nature, form the underlying moral basis for the Code of Ethics. Individuals shall observe these principles as affirmative obligations under all conditions of professional activity.

Rules of Ethics are specific statements of minimally acceptable professional conduct or of prohibitions and are applicable to all individuals.

Principle of Ethics I

Individuals shall honor their responsibility to hold paramount the welfare of persons they serve professionally or who are participants in research and scholarly activities, and they shall treat animals involved in research in a humane manner.

Rules of Ethics

a. Individuals shall provide all services competently.

b. Individuals shall use every resource, including referral when appropriate, to ensure that high-quality service is provided.

c. Individuals shall not discriminate in the delivery of professional services or the conduct of research and scholarly activities on the basis of race or ethnicity, gender, gender identity/gender expression, age, religion, national origin, sexual orientation, or disability.

d. Individuals shall not misrepresent the credentials of assistants, technicians, support personnel, students, Clinical Fellows, or any others under their supervision, and they shall inform those they serve professionally of the name and professional credentials of persons providing services.

e. Individuals who hold the Certificate of Clinical Competence shall not delegate tasks that require the unique skills, knowledge, and judgment that are within the scope of their profession to assistants, technicians, support personnel, or any nonprofessionals over whom they have supervisory responsibility.

f. Individuals who hold the Certificate of Clinical Competence may delegate tasks related to provision of clinical services to assistants, technicians, support personnel, or any other persons only if those services are appropriately supervised, realizing that the responsibility for patient welfare remains with the certified individual.

g. Individuals who hold the Certificate of Clinical Competence may delegate tasks related to provision of clinical services that require the unique skills, knowledge, and judgment that are within the scope of practice of their profession to students only if those services are appropriately supervised. The responsibility for patient welfare remains with the certified individual.

h. Individuals shall fully inform the persons they serve of the nature and possible effects of services rendered and products dispensed, and they shall inform participants in research about the possible effects of their participation in research conducted.

i. Individuals shall evaluate the effectiveness of services rendered and of products dispensed, and they shall provide services or dispense products only when benefit can reasonably be expected.

j. Individuals shall not guarantee the results of any treatment or procedure, directly or by implication; however, they may make a reasonable statement of prognosis.

k. Individuals shall not provide clinical services solely by correspondence.

l. Individuals may practice by telecommunication (e.g., telehealth/e-health), where not prohibited by law.

m. Individuals shall adequately maintain and appropriately secure records of professional services rendered, research and scholarly activities conducted, and products dispensed, and they shall allow access to these records only when authorized or when required by law.

n. Individuals shall not reveal, without authorization, any professional or personal information about identified persons served professionally or identified participants involved in research and scholarly activities unless doing so is necessary to protect the welfare of the person or of the community or is otherwise required by law.

o. Individuals shall not charge for services not rendered, nor shall they misrepresent services rendered, products dispensed, or research and scholarly activities conducted.

p. Individuals shall enroll and include persons as participants in research or teaching demonstrations only if their participation is voluntary, without coercion, and with their informed consent.

q. Individuals whose professional services are adversely affected by substance abuse or other health-related conditions shall seek professional assistance and, where appropriate, withdraw from the affected areas of practice.

r. Individuals shall not discontinue service to those they are serving without providing reasonable notice.

Principle of Ethics II

Individuals shall honor their responsibility to achieve and maintain the highest level of professional competence and performance.

Rules of Ethics

a. Individuals shall engage in the provision of clinical services only when they hold the appropriate Certificate of Clinical Competence or when they are in the certification

process and are supervised by an individual who holds the appropriate Certificate of Clinical Competence.

b. Individuals shall engage in only those aspects of the professions that are within the scope of their professional practice and competence, considering their level of education, training, and experience.

c. Individuals shall engage in lifelong learning to maintain and enhance professional competence and performance.

d. Individuals shall not require or permit their professional staff to provide services or conduct research activities that exceed the staff member's competence, level of education, training, and experience.

e. Individuals shall ensure that all equipment used to provide services or to conduct research and scholarly activities is in proper working order and is properly calibrated.

Principle of Ethics III

Individuals shall honor their responsibility to the public by promoting public understanding of the professions, by supporting the development of services designed to fulfill the unmet needs of the public, and by providing accurate information in all communications involving any aspect of the professions, including the dissemination of research findings and scholarly activities, and the promotion, marketing, and advertising of products and services.

Rules of Ethics

a. Individuals shall not misrepresent their credentials, competence, education, training, experience, or scholarly or research contributions.

b. Individuals shall not participate in professional activities that constitute a conflict of interest.

c. Individuals shall refer those served professionally solely on the basis of the interest of those being referred and not on any personal interest, financial or otherwise.

d. Individuals shall not misrepresent research, diagnostic information, services rendered, results of services rendered, products dispensed, or the effects of products dispensed.

e. Individuals shall not defraud or engage in any scheme to defraud in connection with obtaining payment, reimbursement, or grants for services rendered, research conducted, or products dispensed.

f. Individuals' statements to the public shall provide accurate information about the nature and management of communication disorders, about the professions, about professional services, about products for sale, and about research and scholarly activities.

g. Individuals' statements to the public when advertising, announcing, and marketing their professional services; reporting research results; and promoting products shall adhere to professional standards and shall not contain misrepresentations.

Principle of Ethics IV

Individuals shall honor their responsibilities to the professions and their relationships with colleagues, students, and members of

other professions and disciplines.

Rules of Ethics

a. Individuals shall uphold the dignity and autonomy of the professions, maintain harmonious interprofessional and intraprofessional relationships, and accept the professions' self-imposed standards.

b. Individuals shall prohibit anyone under their supervision from engaging in any practice that violates the Code of Ethics.

c. Individuals shall not engage in dishonesty, fraud, deceit, or misrepresentation.

d. Individuals shall not engage in any form of unlawful harassment, including sexual harassment or power abuse.

e. Individuals shall not engage in any other form of conduct that adversely reflects on the professions or on the individual's fitness to serve persons professionally.

f. Individuals shall not engage in sexual activities with patients, students, or research participants over whom they exercise professional authority or power.

g. Individuals shall assign credit only to those who have contributed to a publication, presentation, or product. Credit shall be assigned in proportion to the contribution and only with the contributor's consent.

h. Individuals shall reference the source when using other persons' ideas, research, presentations, or products in written, oral, or any other media presentation or summary.

i. Individuals' statements to colleagues about professional services, research results, and products shall adhere to prevailing professional standards and shall contain no misrepresentations.

j. Individuals shall not provide professional services without exercising independent professional judgment, regardless of referral source or prescription.

k. Individuals shall not discriminate in their relationships with colleagues, students, and members of other professions and disciplines on the basis of race or ethnicity, gender, gender identity/gender expression, age, religion, national origin, sexual orientation, or disability.

l. Individuals shall not file or encourage others to file complaints that disregard or ignore facts that would disprove the allegation, nor should the Code of Ethics be used for personal reprisal, as a means of addressing personal animosity, or as a vehicle for retaliation.

m. Individuals who have reason to believe that the Code of Ethics has been violated shall inform the Board of Ethics.

n. Individuals shall comply fully with the policies of the Board of Ethics in its consideration and adjudication of complaints of violations of the Code of Ethics.

Reference: American Speech-Language-Hearing Association. (2010). *Code of ethics* [Ethics]. Available from www.asha.org/policy.

PROFESSIONAL CODES OF ETHICS-Links to Full Documents

American Academy of Audiology:
http://www.audiology.org/resources/documentlibrary/Pages/codeofethics.aspx

American Speech-Language-Hearing Association:
http://www.asha.org/policy/ET2010-00309/

Pacific University College of Health Professions:
http://www.pacificu.edu/healthcarecompliance/documents/ComplianceStudentHandbook_7-9-12.rev.pdf

Pacific University:
http://www.pacificu.edu/policies/

SCOPE OF PRACTICE

American Academy of Audiology:
http://www.audiology.org/resources/documentlibrary/Pages/ScopeofPractice.aspx

American Speech-Language-Hearing Association:
http://www.asha.org/policy/SP2004-00192/

Oregon Audiology Licensing Rules and Regulations

Board of Examiners for Speech-Language and Audiology
http://www.oregon.gov/bspa/Pages/index.aspx

PATIENT BILL OF RIGHTS

For Patients Receiving Audiological Services at Pacific EarClinic

Official Statement of ASHA Approved 1993

Patients as consumers receiving audiology services have:

1) THE RIGHT to be treated with dignity and respect;
2) THE RIGHT that services be provided without regard to race or ethnicity, gender, age, religion, national origin, sexual orientation, or disability;
3) THE RIGHT to know the name and professional qualifications of the person or persons providing services;
4) THE RIGHT to personal privacy and confidentiality of information to the extent permitted by law;
5) THE RIGHT to know, in advance, the fees for services, regardless of the method of payment;
6) THE RIGHT to receive clear explanation of evaluation results, to be informed of potential or lack of potential improvement, and to express their choices of goals and methods of service delivery;
7) THE RIGHT to accept or reject services to the extent permitted by law;
8) THE RIGHT that services be provided in a timely and competent manner, which includes referral to other appropriate professionals when necessary;
9) THE RIGHT to present concerns about services and to be informed of procedures for seeking their resolution;
10) THE RIGHT to accept or reject participation in teaching, research, or promotional activities;
11) THE RIGHT, to the extent permitted by law, to review information contained in their records, to receive explanation of record entries upon request, and to request correction of inaccurate records;
12) THE RIGHT to adequate notice of, and reasons for discontinuation of services; an explanation of these reasons, in person, upon request; and referral to other providers if so requested.

PACIFIC UNIVERSITY
SCHOOL OF AUDIOLOGY

ESSENTIAL FUNCTIONS FOR DOCTORAL AUDIOLOGY EDUCATION: ADMISSION AND RETENTION REQUIREMENTS (revised June 15, 2015)

INTRODUCTION

The Doctor of Audiology degree is recognized as a broad-based, first professional degree requiring the acquisition of general knowledge in applicable domains of audiology and the basic skills necessary for the practice of audiology. The education of a prospective audiologist requires assimilation of knowledge, acquisition of skills, and development of judgment through patient care experiences in preparation for the independent, professional decision-making required in practice. A student in the doctoral audiology program at Pacific University must have sufficient functional use of his/her senses of vision, hearing, equilibrium, exteroception (touch, temperature, and pain), and proprioception (position, movement, pressure, sterognosis, and vibration) to carry out all of the activities listed below and in the program materials. Further, the practice of audiology emphasizes interprofessional collaboration among audiologists and other healthcare and education professionals, the patient, and the patient's family and caregivers. It is necessary for students in the program to meet minimum essential functions in order to carry out required activities (including those listed below and in the program materials) and to perform competently, effectively, and safely in supervised patient care experiences throughout the program.

POLICY

The Pacific University School of Audiology endeavors to select applicants who have the ability to become highly competent Doctors of Audiology. The School of Audiology has the responsibility and discretion for the selection and evaluation of students; the design, implementation, and evaluation of its Doctor of Audiology degree program curriculum; and the determination of who should graduate from the program and be awarded a Doctor of Audiology degree. Admission and retention decisions are based on both satisfactory academic and clinical achievement and other non-academic, physical, cognitive, and behavioral factors that indicate the student has an increased possibility of completing the academic, clinical, and essential functions of the academic program required for graduation. Thus, it is important that persons admitted possess the intelligence, integrity, compassion, humanitarian concern, physical capacity, and emotional capacity necessary to practice audiology. Failure to meet or maintain these essential functions may result in action, including but not limited to dismissal from the program.

The School of Audiology, as part of Pacific University and the College of Health Professions, is committed to the principle of equal opportunity. It is the policy of Pacific University not to discriminate on the basis of race, color, creed, religious preference, national origin, gender, sexual orientation, age, marital status, physical or mental disability, or disabled veteran or Vietnam era veteran status in admission and access to educational programs or activities, or treatment in employment, as required by Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, the Age Discrimination Act, the Americans with Disabilities Act of 1990, or any other classification protected under state or federal law or city ordinance. When requested, the university will provide reasonable accommodation to otherwise qualified students with disabilities; however, the safety and welfare of patients shall never be put in jeopardy as a result of an effort to reasonably accommodate a student.

ESSENTIAL FUNCTIONS

The following essential functions of doctoral audiology education identify the requirements for admission, retention, and completion of the Doctor of Audiology degree program in Pacific University's School of Audiology. These functions refer to the abilities, aptitudes, and skills necessary for satisfactory mastery of the curriculum and to the professional attributes required of all students during the program in the following areas: (1) motor and sensory-observation function, (2) communication, (3) intellect, (4) ethical and professional behavior, and (5) social attributes.

(1) Motor and Sensory-Observation Function

The student must:

a. Observe demonstrations and visual presentations in lectures, audiologic laboratories, and clinics;
b. Have sufficient motor and sensory function to observe patients accurately and completely at a distance and close at hand, elicit information from them related to audiologic diagnostics and treatment, and identify a patient's normal and disordered communication and behavior related to hearing and balance;
c. Have sufficient motor function, vision, hearing, touch, and dexterity to integrate and coordinate both gross and fine motor movements, hand/eye coordination, equilibrium, and sensation; execute movements required to provide audiologic care of patients; and effectively manage physical conditions in order to prevent impediments to appropriate services;
d. Effectively manipulate equipment and instruments necessary to perform audiologic diagnostic tests and rehabilitation treatments, and to work with patient-utilized equipment (e.g., durable medical equipment, including hearing aids, hearing assistance technology devices, etc.), and efficiently manipulate the diagnostic and treatment environment and materials without violation of diagnostic and treatment protocols and best practices;
e. Visualize and identify anatomic structures; visualize and discriminate findings on imaging studies; discriminate text, numbers, tables, and graphs associated with diagnostic instruments and tests; and accurately monitor, through both visual and auditory modalities, equipment and instrument displays and controls, including those of hearing instruments and clinical equipment, used for the diagnosis and treatment of patients and the conduct of laboratory assignments in the hearing and balance sciences and clinical audiology;
f. See with measurable depth perception and in low-light conditions (e.g., in sound-isolated booths, during vestibular assessment, etc.), distinguish color variations, and discern shades of black and white;
g. Hear, understand, and accurately communicate verbally;
h. Sit, bend, and reach while performing daily job functions, function in a structured environment for several hours, sustain necessary physical activity level required in classroom and clinical activities, and maneuver in small spaces (e.g., sound-isolated booths);
i. Respond quickly to provide a safe environment for patients in emergency situations (e.g., fire, choking, etc.).

(2) Communication

The student must:

a. Communicate effectively with patients, both verbally and auditorily, and effectively observe patients in order to elicit information and perceive a patient's verbal and non-verbal communication;
b. Effectively and efficiently describe patient behavior, test results, and related technical information (e.g., as related to amplification, etc.);

c. Communicate clearly, effectively, and sensitively with patients in both oral and written English;
d. Write effectively, including making clear and legible handwritten notes in patient charts and preparing appropriately written and referenced essays, reports, research and other scholarly papers, patient documentation, and other classroom, laboratory, and clinical written assignments as part of course work and clinical practice;
e. Read at a level to comprehend curriculum and clinical content in doctoral-level audiology education;
f. Be computer literate at a level to utilize computers effectively in classroom, laboratory, and clinical education environments, including accessing technology for clinical management (e.g., billing, charting, etc.);
g. Communicate effectively and efficiently with other members of the healthcare team and the public, in oral, written, and electronic form, in a manner that enhances the dignity and image of the audiology profession;
h. Perceive and demonstrate appropriate non-verbal communication for culture and context; modify communication style to meet the communication needs of patients, caregivers, and other persons served; and convey information accurately with relevance and cultural sensitivity;
i. Recognize when patients and/or family members and caregivers do or do not understand written and/or verbal communication, and modify and adapt the communication appropriately.

(3) Intellect

The student must:

a. Have sufficient intellectual abilities, including comprehension, retention, measurement, evaluation, reasoning, analysis, inference, integration, and synthesis, to meet curricular and clinical demands and the critical skill of problem-solving;
b. Possess sufficient intellectual capacity to collect and analyze complex audiologic data and both written and verbal patient history information, and to comprehend three-dimensional relationships and the special relationships of structures, in order to interpret patient findings, recognize anomalies, reach logical conclusions, make sound clinical judgments, and make recommendations which improve patient care;
c. Demonstrate the ability to identify complex problems and reach conclusions through reading and comprehension of technical materials, audiologic and medical information, and audiologic and medical texts and journals;
d. Comprehend, analyze, and synthesize complex program content, utilize detailed written and verbal instruction to meet curricular and clinical demands, concentrate on the task at hand amidst a variety of environmental distractions, and apply prior learning to new situations;
e. Self-evaluate, identify, and communicate limits of one's own knowledge and skills related to appropriate professional levels and expectations, and identify and utilize resources in order to increase knowledge and skills to appropriate professional levels and expectations.

(4) Ethical and Professional Behavior

The student must:

a. Understand the basis and content of ethics in audiology, conduct his/herself in an ethical manner, and uphold professional ethics in audiology;
b. Comply with established university and school policies and procedures, and abide by the laws and regulation pertaining to the practice of audiology in the jurisdiction in which professional activities are being conducted;

c. Maintain accuracy and confidentiality of patient information by protecting medical, personal, academic, financial, or business information, and by respecting professional confidences;
d. Foster a professional attitude and a positive environment for learning; work both independently and as team member; interact well with individuals, small groups, and large audiences; and establish sufficient rapport and maintain boundaries in order to effectively relate to fellow students, patients, healthcare professionals, clinical supervisors and preceptors, faculty, and staff;
e. Present a professional appearance and demeanor;
f. Manage one's circumstances in ways that do not restrict balanced services to patients, including having access to appropriate transportation to clinical and academic placements to allow full participation in the academic and clinical activities for the defined work day;
g. Manage one's circumstances in ways that do not restrict access to appropriate computer technology and internet access, both during and after classes and other program activities, including evenings and weekends, in order to allow full participation in and complete professional, technical, clinical, and curricular assignments, tasks, and examinations.

(5) Social Attributes
The student must:
a. Display mature, sensitive, effective, and culturally appropriate professional relationships by exhibiting attributes that include compassion, integrity, empathy, altruism, responsibility, tolerance, and concern;
b. Possess the interpersonal skills necessary to interact in a positive and professional manner with people from all levels of society, cultural backgrounds, and belief systems; and provide care to all regardless of age, race, ethnicity, origin, physical or mental status, or other condition or status;
c. Possess the emotional stability for full utilization of his/her intellectual capacity, to exercise sound judgment and complete all responsibilities attendant to the audiologic diagnosis and treatment of patients; and possess the necessary mechanisms to accept suggestions and criticism and to respond appropriately through modification of behavior;
d. Manage the use of time effectively, organize tasks, set priorities, problem solve, and multitask at a sufficient level to complete professional, technical, clinical, and curricular tasks;
e. Function effectively under stress and adapt to changing and demanding environments while maintaining both professional demeanor and emotional health;
f. Maintain physical and mental health and self-care to a level that does not to jeopardize the health and safety of self and others in the academic and clinical setting.

UNIVERSITY LEARNING SUPPORT SERVICES
Pacific University provides services and reasonable accommodations to students covered under the Americans with Disabilities Act. Additional information is available via the university's Office of Learning Support Services (LSS) website, www.pacificu.edu/about-us/offices/learning-support-services. A student who requires accommodations is strongly encouraged to contact LSS at 503.352.2194 or lss@pacificu.edu as soon as a potential service or accommodation is anticipated in order to determine and document the need for services and accommodations. A student who receives accommodations is strongly encouraged to discuss his/her needs with school administration and appropriate faculty and clinical preceptors.

PROGRAM-SPECIFIC INFORMATION
Students admitted into Pacific University's Doctor of Audiology degree program must:
a. Satisfactorily complete a background check and a drug test and document required immunizations and a TB test prior to the start of classes in the first semester of the program;

b. Complete various training, including but not limited to training on sexual harassment, bloodborne pathogens, and the Health Insurance Portability and Accountability Act (HIPAA), during the first semester of the program and then annually;
c. Adhere to accepted professional and ethical standards of behavior, which will be evaluated throughout the program;
d. Be aware that the program utilizes a modified block system and that the curricular blocks are administered as Pass/No Pass based on an 85% competency;
e. Be aware that the school may have additional procedures for students to complete upon admission to the program and will have additional policies and procedures in place for all students to adhere to throughout the program.

ACKNOWLEDGEMENT

My signature below affirms that I have read and understand the above Essential Functions for Doctoral Audiology Education at Pacific University, including the program-specific information, agree with its content, am committed to the policies expressed therein, am able to perform all of the essential functions needed to satisfactorily complete the requirements for the program, and understand that I may be dismissed from the program should I fail to meet or maintain one or more essential functions during the program despite reasonable accommodation(s) (if recommended by the university's Office of Learning Support Services).

_____

Print Name

_____ _____

Sign Name *Date*

INTERNAL FILE AUDIT

Patient: _____ DOB:_____

Dx Code: _____Date:_____

Indicate completion of file audit by inserting date or n/a if not applicable.

_____ Summary Notice of Privacy Practice Receipt Signature Sheet
_____ Authorization for Use of Protected Health Information HIPAA
_____ Informed Consent
_____ Referral
_____ Case History
_____ Evaluation
_____ Treatment Documentation
_____ Clinic Notes
_____ Co-signature of Supervising Audiologist
_____ Other
_____ Other

Student _____ Date _____

Audiologist _____ Date _____

AIDS	Autoimmune Deficiency Syndrome
ALS	Amytropic Lateral Sclerosis
AI	Autistically Impaired
alt	Alteration
am	Before Noon
appt	Appointment
APS	Adult Protective Services
ASAP	As soon as possible
assess	Assessment
ASHD	Arteriosclerotic Heart Disease
A	Assist
≈	Approximately
ā	Before
A&O	Alert and Oriented
AAC	Augmentative/Alternative Communication
abd	abduction
add	adduction
ADA	Americans With Disabilities Act (1990)
ADD	Attention Deficit Disorder
ADHD	Attention Deficit Hyperactivity Disorder
ADL	Activity of Daily Living
AFC	Adult Foster Care
b.i.d.	twice a day
b.i.w.	twice a week
BCBS	Blue Cross Blue Shield
bil/bilat	Bilateral
BP	Blood Pressure
CH	Communicatively Handicapped
CABG	Coronary artery bypass: graft
√	Check
COA	Commission on Aging
Coord	coordination
C.P.	Cerebral Palsy
CPS	Child Protective Services
CA	Chronological Age
CAP	Central Auditory Processing
CAPD	Central Auditory Processing Disorder
CEC	Classes/Council for Exceptional Children
CF	Cystic Fibrosis
CG/Cg	Caregiver
CNT	Could Not Test
CVA	Cerebral Vascular Accident
c	with
Δ	Change
cm	Centimeter
cont	continue
COPD	Chronic Obstructive Pulmonary Disease
CPR	Cardiopulmonary Resuscitation
c/o	Complains of
CA	Cancer
CHF	Congestive Heart Failure
CAD	Coronary Artery Disease
CNS	Central Nervous System
D/C	Discharge
DNT	Did Not Test
dep	dependent

demo	demonstrate
dim	diminished
DME	Durable Medical Equipment
DO	Doctor of Osteopathic Medicine
DVT	Deep Vein Thrombosis
?	Doubtful or Unknown
D	Direct (supervision)
diff	difficulty
DM	diabetes mellitus
DMH	Department of Mental Health
DD	Developmentally Disabled
DOB	Date of Birth
DPH	Department of Public Health
DPOA	Durable power of attorney
DSS	Department of Social Services
Dx	Diagnosis
DOV	Date of Visit
DOT	Date of Testing
↓	Decrease
EHA	Educational for all Handicapped Children Act of 1975 (now known as IDEA as amended in 1990)
EMS	Emergency Medical Service
E.S.	Electrical Stimulation
EI	Emotionally Impaired
EMI	Emotionally Mentally Impaired
ETOH	alcohol
ext	extension
ESL	English as a Second Language
ECF	Extended Care Facility
EEG	Electroencephalogram
EHA	Education of the Handicapped Act
EKG	Electrocardiogram
eval	evaluation
e.g., ex, i.e.	For example
ERD	Esophageal Reflux Disease
ER	Emergency Room
fld	fluid
FAPE	Free Appropriate Public Education
FEP	Fluent-English Proficient
FERPA	Family Education Rights and Privacy Act
fdg	feeding
FEES	Fiberoptic endoscopic evaluation of swallowing
flex	flexion
fx	fracture
F/U	follow-up
>	greater than
HEP	Home Exercise Program
HI	Hearing Impaired
H_2O	water
HTN	Hypertension
HCFA	Health Care Financing Administration
HHA	Home Health Aide
H&P	History and Physical
Hx	History
Info	Information
IEP	Individualized Education Program
IDDM	Insulin Dependent DM
ICU	Intensive Care Unit
↑	Increase

I	Independent
IDT	Inter-Disciplinary Team
IV	Intravenous
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
LEP	Limited English Proficient
LES	Limited English Speaking
LRE	Least Restrictive Environment
L	Left
LOT	Length of Treatment
lat	Lateral
LE'S	Lower extremities
LLE	Left Lower Extremity
LOS	Length of Service
LLD	Language Learning Disabled
LLL	Left Lower Quadrant
LPN	Licensed practical Nurse
LD	Learning Disabled
LLQ	Left Lower Quadrant
LIQ	Liquid
lb or #	pound
LLL	Left Lower Lobe
<	less than
MBD	Minimal Brain Dysfunction
MET	Multidisciplinary Evaluation Team
MS	Multiple Sclerosis
MD	Muscular Dystrophy
MBS	Modified Barium Swallow
med	medication/medical
mg	milligram
MI	Myocardial Infarction
mod	moderate
mtg	meeting
msw	multisyllabic words
MSW	Master of Social Work or Medical Social Worker
M.D.	Physician
MA	Mental Age
MVA	Motor Vehical Accident
MBS	Modified Barium Swallow
med	medication/medical
mg	miligram
MI	Myocardial Infarction
mod	moderate
mtg	meeting
mets	metastases
mgmt	management
ml	milliliter
N/A	Not Applicable
NGT	Nasogastric Tube
NG	Nasogastric
-	negative
N	normal (therapy)
n.p.o.	Nothing by Mouth
NIDDM	Non-insulin dependent DM
∅	No response
occ	occasional
OME	Oral Motor Exercise
OR	Operating Room
Ox3	Oriented to person, place and time

OM	oral motor
OP	Outpatient
OT	Occupational Therapy
OSEP	Office of Special Education Programs, U.S. Department of Education (ED)
OSERS	Office of Special Education and Rehabilitative Services, ED
PL 94-142	Public Law 94-142, The Education for all Handicapped Children Act of 1975
PL 99-457	The 1986 amendments to the PL 94-142 which included the Early Intervention Program for Infants and Toddlers (Part H)
PLP	Present Levels of Performance
PAC	Parent Advisory Committee
PTA	Physical Therapist Assisstant
PDD	Pervasive Development Disorder
POHI	Physically or otherwise Health Impaired
p.r.n.	As Necessary
p.o.	By mouth
ped	pediatric
POC	Plan of Care
POT	Plan of Treatment
PEG	Percutaneous Esophageal Gastrostomy
Pt.	Patient
p̄	after
pm	after noon
+	positive
prn	if necessary
PVD	Peripheral Vascular disease
PT	Physical Therapy
QI	Quality Improvement
QOD	Every other day
QOW	Every other week
QID	Four times a day
QIW	Four times a week
q.d.	every day
re:	regarding
rehab	rehabilitation
reg	regular
reps	repetitions
RR	Resource Room
RLQ	Right Lower Quadrant
ROM	Range of Motion
R or Rt.	Right
R/O	Rule out
RLL	Right Lower Lobe
RLE	Right Lower Extremity
RN	registered nurse
resp	respiration
ROS	rate of speech
Rx	Prescription or Therapy
SMI	Severely Mentally Impaired
SLI	Speech-Language Impairment
SSI	Supplemental Security Income
SST	Student Study Team
SSW	School Social Worker
2°	secondary
s̄	Without
SLP	Speech-Language Pathologist
ST	Speech Therapy
SOAP	Subjective, objective, assessment, plan
SOC	Start of Care

S/P	Status Post
SH	Severely Handicapped
Stat.	Immediately
SOB	Shortness of Breath
TMI	Trainable Mentally Impaired
TC	Teacher Consultant
TSLI	Teacher of the Speech and Language Impaired
T/C	Telephone Call
Tbsp.	Tablespoon
t.i.d.	Three Time a Day
TF	Tube feeding
TID	Three times a day
tol	tolerated
TPN	Total Parental nutrition
Tymp	tympanometry
temp	temperature
TBS	to be scheduled
TBI	Traumatic Brain Injury
TEP	tracheoesophageal puncture
TIA	Transient ischemic attach
TIW	Three times a week
Tx	Treatment
trach	tracheostomy
UE	Upper Extremities
vot	Voice onset time
VC	Verbal Cue
VP	Visual perception
WC	Work Activity Center
WNL	Within Normal Limits
wt	weight
WFL	Within function limits
W/C	Wheelchair

APPENDIX D

Pacific University & Pacific EarClinic Policies and Procedures

OPERATIONS:
(Located at: Pacific EarClinic Front Desk)

Map and Directions to the Pacific EarClinic

Pacific University-Hillsboro Map

The Environmental and Safety: Emergency Action Plan for the Tuality Medical Building

Office Closure or Delaying Operations due to Weather or Adverse Conditions

POLICIES AND PROCEDURES:
(See below links)

Guidelines for handling Injuries on Campus-*PU*

- http://www.pacificu.edu/about-us/offices/student-health-center/student-injuryillness-protocol

Infectious Diseases Policy-*PU*

- http://www.pacificu.edu/node/18049