



Rancho Los Amigos National Rehabilitation Center

Communication Disorders Department- Audiology Policy and Procedure

SUBJECT: EQUIPMENT MAINTENANCE/CALIBRATION

Policy No.: 424
Supersedes: September 1990
Revision Date: February 2022
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PURPOSE

To outline Equipment Maintenance responsibilities performed by Audiology.

POLICY

The audiologist will evaluate equipment needs of the service and make appropriate recommendations to the Director of the Communication Disorders Department for budget consideration. The audiologist will also ensure that the audiologic equipment is periodically calibrated and maintained in good working order.

PROCEDURES

1. Audiometers used for audiometric evaluations and screenings must meet ANSI S3.6-1989 standards and must be calibrated according to the following requirements:
 - a. Biologic Calibration check of audiometers each day of use to include:
 1. Known threshold of calibrator
 2. Cross talk between test and non-test head phones
 3. Signal distortion
 4. Transients (i.e., 60. cycles)
 5. Noise in the head phones or audiometer
 - b. Annual electro-acoustic calibration check to include:
 1. Accuracy of SPL output (sound field and earphones). Checks must be made of pure tones, speech and noise
 2. Accuracy of attenuator linearity
 3. Check for effective masking levels
 4. Harmonic distortion
 5. Accuracy of frequency
 6. Check rise time/full time and over shoots of pure tones
2. Middle ear analyzers used for immittance testing must meet the ANSI 83.6 - 1989 standards and will be calibrated on an annual basis, including:

- a. Check accuracy of frequencies
 - b. Check accuracy of SPL output of ipsilateral and contralateral transducers
 - c. Check accuracy of pressure circuits
 - d. Check accuracy of physical volume
3. All equipment receives maintenance annually for the following:
 - a. Any needed internal voltage adjustments suggested by the manufacturers
 - b. All jacks and plugs are serviced
 4. Audiological sound suite will meet ANSI S3.1-1977 Permissible Background Noise Levels for Audiometric Testing Rooms.
 5. When the following standards referred to in this document are superseded by an approved revision, the revision shall apply: American National Standard Specification for Audiometers S3.6-1989.
 6. Calibration Logs are maintained on all audiometers and middle ear analyzers.

Source: ASHA PSB Accreditations Standards

American National Standards Institute (1977), Criteria for permissible ambient noise during audiometric testing. ANSI S3.1 - 1977. New York: American National Standards.

American National Standards Institute (1989). American National Standard Specification for Audiometers. ANSI S3.6- 1989. New York: American National Standards Institute.

ASHA.org Preferred Practice Patterns, Audiology