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Letter to the Editor

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Dear EHIMA TC Members:

Hearing loops greatly help hearing aid and cochlear implant users.1 To benefit from the increasing number of properly worldwide installed loops (one that meet IEC 60118-4) consumers need access to a vertical telecoil with a frequency response that closely matches the microphone sensitivity at equal input levels for the speech frequencies (70 dB SPL vs 100 mA/m inputs)—something called transparency.

Recently, WG 13_ IEC60118-0 moved the SPLIV and Equivalent Test Loop Sensitivity (ETLS) sections from an annex to the main body of the standard. This should reveal, at least in the reference test mode, whether telecoils are appropriately vertically positioned and whether the hearing aid output SPL between microphone and induction input modes in the “as worn” position are transparent. However, when some hearing aids with vertical telecoils and good RSETS/ETLS values are switched from test to programmed mode, a disparity occurs in the mic vs telecoil and/or M+T programs. McBride and Valente2,3 have shown that a variety of combinations of mismatching in performance curves occur.

Obviously, when the Mic and T-coil programs are not transparent, audiologists and hearing loop installers do not understand the consumer’s poor experience with their hearing aid in loop. Consumers may find their telecoil experience in a hearing loop is either 1) too loud or 2) too soft, 3) the instrument lacks clarity, 4) their hearing aid is 5) too loud or 6) too soft for ambient sounds relative to T in an M+T program, or the loop signal is 7) too loud or 8) too soft in the M+T program.

Providers, who may have verified the gain settings with real-ear but are unaware of the lack of transparency in the telecoil programs, may unwittingly make inappropriate telecoil program adjustments in an attempt to improve their client’s loop experience. Mic vs. Telecoil response discrepancies unnecessarily complicate the job for audiologists, as this problem occurs not just between different hearing instrument manufacturers but also within a manufacturer’s product line, issues that can frequently only be detected after the programming is completed and the instrument is decoupled from the programming software cables.

Hearing loop installers are called back for hearing loop performance verification checks or otherwise blamed for the consumer’s inability to benefit from a loop. Until a new universal digital wireless standard becomes available (one loop advocates are ready to support when that time comes), consumers need good telecoils, as well as hearing loops that meet the IEC standard. It is the hearing aid manufacturers who should make every effort to ensure their hearing aids offer quality, properly positioned telecoils and telecoil responses that are as identical as possible to the user’s Mic response in the programmed state of the instruments and not only in the ANSI test

mode, as this will improve consumer satisfaction.4

We urge the manufacturers to also spend time educating providers on telecoil intricacies and orientation, and programming optimization of the T and M+T settings, as well as inform consumers of the benefits of telecoils.

References

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