

HOW DO YOU PERFORM AUTOMATED SPEECH AUDIOMETRY FOR TELEAUDIOLOGY WITH GSI AMTAS?



Because the patient is directing the test independently with a software program, speech testing on AMTAS is a closed set task. Before the speech test begins, there is a speech specific set of instructions. These instructions may be reviewed by video or text and indicate that the patient will listen for a word and then select the word that they heard from the group of words displayed on the screen. They must select a word; they cannot repeat the audio or go back.

Speech Recognition Threshold (SRT) testing is obtained using a closed set of spondaic words and is very similar to manual audiometry. The SRT presentation starts at a level the patient can hear and gets softer and softer until the speech threshold is obtained. After SRT is obtained, the software moves into Word Recognition Score (WRS) using a closed set of NU-6 words. Because this is a closed set test, the presentation level is not “Most Comfortable Level (MCL)” or “40 dB above SRT.” MCL and other comfortable dB levels for WRS testing in a closed set task are too easy. Every patient would get 100% and that would not add value to the automated test.

The default presentation level of the WRS testing is 22 dB above the reference level based on either SRT or PTA. The reference is specified in the configuration application. Due to the low presentation level of the WRS, it is common to get scores that are not 100%. If the score is 88%, that is considered excellent and AMTAS moves to the next part of the evaluation. If the score is less than 88%, AMTAS increases the dB presentation level to 28 dB above the reference and repeats the WRS. The patient still may not get a score of 100%, but it gives the audiologist who is interpreting the test an opportunity to observe PIPB increase. This adds diagnostic value to the automated speech testing. It is also possible to specify a fixed dB level for WRS testing. However, with a fixed level, the words are presented only one time regardless of the score. Speech WRS testing will not be performed under the following circumstances:

- A. SRT is greater than 68 dB
- B. PTA is greater than 68 dB
- C. A fixed value WRS presentation level is greater than 80 dB

When used in combination with the audiogram and the quality indicators provided in the audiologist report, automated speech audiometry provides the interpreting audiologist valuable information to make decisions on the most appropriate next step in the patient treatment plan.