# Standard Operating Procedure for

# Audiometry Screening

**Appendix 1. How to use Shoebox Audiometer**

1. Activate the iPad and select the ShoeBOX icon to begin the program
2. Select “Automated Test”
3. Chose the patient’s better hearing ear to start. If unsure which ear has better hearing, choose the right ear.
4. There may be several pop-ups throughout the test asking for access to various features on the iPad. Respond to them accordingly. Generally, questions pertaining to the microphone or locations services are answered ‘yes’, and iCloud or Apple ID questions are answered ‘no’.
5. The iPad will do an ambient noise verification. If the room is too noisy for the test, Shoebox will prompt users to either “***Go Ahead”*** with the test anyway, or “***Try Again”***. Unless the room cannot get any quieter, **assessor** should choose Try Again to ensure the validity of the test
6. Start testing. Instruct the patient to place their finger on the object icon in the center of the screen.
7. Inform the patient that if a sound is heard, however faintly, keep their finger on the screen and drag the object to either the green circle if you hear a sound, or the red circle if no sound was perceived. Let me patient know at the beginning of the test that some sounds being tested can be very soft, so even if they think that they are hearing something, they can drag the object to the green circle.
8. To ensure accuracy of the test, however, there will be multiple instances where no sound will be presented at all (approximately half the time). Therefore, also tell patient to not be concerned if they place objects in the red circle, even multiple times in a row.
9. Do test run with the patient using the “endTB test run for patients”. To enter this, at the Homepage of Shoebox, choose Settings at the top right corner of the window. Under Settings, choose Configuration, then check the option “endTB test run for patients” on the right hand side.
10. Multiple frequencies will be tested in each ear, so prompt the patient to continue the sorting task until the iPad indicates that the initial test is complete. At this stage, the patient may be finished OR may be asked to repeat certain frequencies due to environmental noise, reliability concerns, or masking requirements. Instruct them to follow the additional prompts to complete this next stage of testing.
11. The test is complete when the iPad requests a passcode, or an audiogram screen is shown. The patient will give back the iPad to **assessor.**
12. Once the test is finished, **assessor** will be prompted to assign the test to a patient. Follow the instruction and enter all necessary information for the patient.
13. Capture the data:
    1. With a wireless internet connection, patient data can be exported to an email address. This can be done by:
       1. Choose the option ‘Manage Patients’ at the Homepage of Shoebox.
       2. Once in the patient management screen, choose the up-arrow icon at the top right of the screen. Choose ‘Export’ and select the patients that need to have their data exported by pressing their names.
       3. Enter the email address where data shall be exported to. This email address must be pre-assigned at baseline.
       4. Download the exported file, in .csv format and open it using Microsoft Excel.
       5. Retrieve threshold at each frequency tested for the right ear and left ear.
       6. Fill out the Audiogram using these results
    2. Without a wireless internet connection, patient data can be recorded directly to the Audiogram Form. This can be done by:
       1. Refer to the two Audiograms at the end of the hearing test
       2. Each circle corresponds to a Loudness Decibel value, or the hearing threshold, at each frequency. **Assessor** can use a ruler to correctly match the center of the circle to a value in the Loudness Decibel value.
       3. Retrieve threshold at each frequency tested for the right ear and left ear.
       4. Fill out the Audiogram using these results.