# Standard Operating Procedure for

# Audiometry Screening

**Appendix 2. How to use a manual pure tone audiometer**

**If using a manual pure tone audiometer:**

1. Introduce one’s self and verify the subject’s name and date of birth. Subject identifiers must match the clinical chart.
2. Explain the procedure to the patient. The patient may find the test very unfamiliar, so the healthcare worker must give clear and detailed instructions in order to get accurate results. For example, an instruction for manual audiometry may be as below:

*“Do you hear better out of one ear than the other? (If yes, ask which ear, then start with the better ear. If no, then start with the right ear.) You will be hearing some faint tones, first in your <better or right> ear and then in your <other or left> ear. The tones will be pulsing so that you will hear a chain of beeps and then silence. Listen for the beeps and when you hear them <press this button or raise your hand> to signal that, -Yes, I hear them. The beeps will generally get fainter and fainter each time they are presented. <Press this button or raise your hand> whenever you think you hear the beeps. The pitch of the tones will change, first going lower in pitch and then going higher in pitch. The test of your <other or left> ear will not begin until your <other or right> ear has been tested for all of the frequencies. If you are certain that you hear the beeps, you don’t have to wait for the beeping to stop to <press this button or raise your hand>. And, you don’t have to <hold the button down or hold your hand up> for as long as you hear the beeps. A simple<press and release or hand raise and fall> will do. So, if you haven’t any questions, I will put the earphones on and we can start the test. (Answer any questions.) Please wait for me to remove the earphones when the test is over.”*

1. Check the ambient noise
2. Position the patient so they cannot see the front of the audiometer
3. Lay headphones on the table, facing the patient, set audiometer to 2000 Hz and maximum volume, and have the patient practice raising either hand when a tone is heard. Repeat this several times until the patient understands the procedure.
4. Set the decibel dial to 40dB, set frequency dial to 1000 Hz.
5. Place the red headphone on the patient’s right ear and the blue headphone on the left ear, and ensure the headphones fit snugly and correctly on the patient’s head as the instruction above (see 5.3. for details on earphone replacement).
6. Threshold Determination:
   1. Screen right or better ear first.
   2. Present 1000 Hz tone at 40dB; decrease incrementally by 10dB until there is no response, or down to 0dB.
   3. At the level where there is no response, increase in 5dB increments until there is a response.
   4. Decrease 10dB until there is no response.
   5. Increase in 5dB increments until there is a response again.
   6. Repeat until there are two responses at the same dB level; record this as the threshold level at 1000Hz tone.
   7. Write this threshold on the Audiogram form for the ear being screened.
   8. Repeat the same process for 2000, 4000, 6000, 8000.
   9. Switch ears and repeat.
   10. Record the audiometry screening result to the Audiogram