

Baseline Audiological Profiling of South African Females with Cervical Cancer: An Important Attribute for Assessing Cisplatin-Associated Ototoxicity

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SUPPLEMENTARY FILE 2: AUDIOLOGICAL PROCEDURE, MOTIVATION AND EQUIPMENT

Audiological Procedure	Motivation	Equipment
1. Case history interview	<ul style="list-style-type: none"> Allowed for accessing information on the presence of self-reported auditory and otologic symptoms such as tinnitus, otalgia and hearing difficulties as well as medical and family history of hearing loss. 	Case History questionnaire
2. Otoscope Examination	<ul style="list-style-type: none"> Determine the status of the tympanic membrane and the external ear [1]. 	Agine otoscope
3. Tympanometry	<ul style="list-style-type: none"> Evaluate the integrity of middle ear functionality [2]. 	GSI Tymstar V2 Impedance meter
4. Ipsilateral and contralateral acoustic reflex thresholds	<ul style="list-style-type: none"> Provide information about the functioning of the middle ear and the sensory, neural, and motor pathways associated with the reflex arc [2]. 	GSI Tymstar V2 Impedance meter
5. Pure tone audiometry (air)	<ul style="list-style-type: none"> Determine the type and degree of hearing loss [2]. 	Conducted in a sound proof booth, using the twin channel Madsen Astera.

<p>and bone conduction)</p>	<ul style="list-style-type: none"> • Pure tone air conduction thresholds were obtained bilaterally at the following frequencies: 125, 250, 500, 1000, 2000, 4000, 8000, 9000, 10000, 11200, 12500, 14000, 16000, 18000 and 20000 Hz, while bone conduction thresholds were obtained bilaterally at 250, 500, 1000, 2000 and 4000Hz. 	
<p>6. Speech audiometry</p>	<ul style="list-style-type: none"> • Speech reception threshold (SRT) testing was used for the confirmation of pure tone thresholds which, alerts the audiologist to invalid pure tone results [2]. Word recognition score (WRS) testing was conducted to measure how well the listener could understand speech as a function of the ability to differentiate sounds under optimum circumstances. The score is intended to be a measure of the clarity with which the patient hears speech [2]. 	<p>Speech audiometry was conducted using live voice monitoring in a sound proof booth, using the Madsen Astera. Speech lists used include the Digits test for SRT and the CID W-22 Auditory test word list for English speaking participants, while an isiZulu wordlist collated in the Discipline of Audiology, was used for isiZulu speakers, during word recognition score testing.</p>

<p>7. Distortion Product Oto-acoustic emission</p>	<ul style="list-style-type: none"> OAEs are sensitive to hearing losses, resulting from outer hair cell damage. OAE results assist with the differentiation of cochlear vs. retro-cochlear disorders [3]. 	<p>Maico Oto-acoustic emission</p>
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References

1. Martin F, Clark J: **Introduction to audiology**, 10th ed edn. Pearson; 2009.
2. Gelfand SA: **Essentials of Audiology**, Fourth edn. New York: Thieme Publishers; 2016.
3. Robinette MS, Glatke TJ: **Otoacoustic emissions**. In: *Audiology diagnosis*. Edited by Roeser RJ, Valente M, Hosford-Dunn H. New York: Thieme Medical Publishers; 2000: 503-526.