Appendix: Questionnaire

Please tick the appropriate box or give the necessary information in the space provided.

1. **Demographics:**

1.1. Race:

Black ☐ White ☐ Indian ☐ Coloured ☐ Other ☐

1.2. Gender:

Male ☐ Female ☐

1.3. Age:

20 – 25 ☐ 26 – 30 ☐ 31 – 35 ☐ 36 – 40 ☐ 41+ ☐

1.4. Years' experience working in cancer units:

0-5 years ☐ 6-10 years ☐ 11-15 years ☐ 16-20 years ☐ 21+ years ☐

1.5. Current workplace:

Public Hospital ☐ Private ☐ Other: ☐ Specify_____

1.6. Profession:

General Practitioner ☐ Nurse ☐ Audiologists ☐ Oncologist ☐

Pharmacist ☐ Other: ☐ Specify_____

1.7. Where did you obtain your degree and when?

_____

1.8. Does the cancer unit where you work provide ototoxicity monitoring?

Yes ☐ No ☐

1.9. Where did you learn about ototoxicity monitoring (tick all that apply)?

University programme ☐ On the job ☐ Own reading ☐

Conferences & workshops ☐

2. General perceptions towards ototoxicity monitoring

2.1. Ototoxicity is

(A) A side effect of medicine resulting in auditory and/or vestibular dysfunction resulting in hearing loss and disequilibrium
(B) A toxic reaction resulting from an interaction between two or more drugs
(C) Renal impairment due to medicine overdose
(D) A side effect of medicine resulting in severe skin rash
(E) Don't know

2.2. Signs of ototoxicity include

(A) Hearing loss
(B) Disequilibrium
(C) Renal impairment
(D) A and B
(E) A, B and C

2.3. Which of the following medicines used for cancer is likely to cause hearing loss:

(A) Ifosfamide
(B) Cisplatin
(C) Methotrexate
(D) A and B
(E) B and C

2.4. What proportion of patients receiving cisplatin chemotherapy would develop hearing loss

(A) 0%
(B) 25%
(C) 50%
(D) 75%
(E) 100%

2.5. What hearing loss configuration would ototoxicity likely cause?

(A) Flat
(B) High frequency
(C) Low frequency

2.6. How severe is the hearing loss likely to be?
(A) Mild
(B) Moderate
(C) Severe
(D) Profound

2.7. What impact do you think this hearing loss would have on their daily life?
(A) None
(B) Slight
(C) Moderate
(D) Severe

2.8. How likely is it that these patients will also develop tinnitus (ringing in ears)?
(A) unlikely
(B) slight
(C) moderate
(D) very

2.9. What impact do you think this tinnitus would have on their daily life?
(A) none
(B) slight
(C) moderate
(D) severe

2.10. Are these patients also likely to develop balance/vestibular problems?
(A) unlikely
(B) slight
(C) moderate
(D) very

2.11. What impact do you think these balance/vestibular problems would have on their daily life?
(A) None
(B) Slight
(C) Moderate
(D) Severe

2.12. What is the purpose of ototoxicity monitoring (select all that apply)?
(A) Early identification of hearing loss
(B) To terminate ototoxic treatment
(C) To adjust treatment dosages
(D) Improve quality of life post-treatment
(E) Provide appropriate and timely intervention

2.13. What benefits are there for the patient in ototoxicity monitoring (select all that apply)?
(A) Knowledge about ototoxic hearing loss
(B) Early identification of hearing loss

(C) Early intervention
(D) Other, please specify

2.14. Are you aware of any South African ototoxicity protocols or best practice guidelines regarding monitoring?
(A) Yes
(B) No
If yes, please specify protocols known
_____

3. Challenges

3.1. Is the referral process that leads to a patient receiving potentially ototoxic treatments being seen by Audiology a challenge?
(A) Yes
(B) No

3.2. How important is a baseline audiogram?
(A) not important
(B) somewhat important
(C) moderately important
(D) very important

3.3. Waiting lists vary. Are there any assurances or checks that are made to make sure the patient is seen before their first ototoxic treatments (e.g. chemotherapy/radiation/aminoglycosides), or do they just get the first available appointment?
(A) All oncology patients receive baseline assessments
(B) Only patients referred receive baseline assessments
(C) Patients do not receive baseline assessments
(D) Other, please specify

3.4. When these patients arrive at the audiology clinic, how informed do you think they are about the risk to their hearing from their treatment?
(A) uninformed
(B) slight
(C) moderately
(D) well

3.5. Where do you think most patients get this information?
(A) General practitioner
(B) Oncologist
(C) Nursing staff
(D) Pharmacists

(E) Other, please specify

3.6. Whose responsibility should it be to inform the patient about the potential risk to their hearing?
(A) General practitioners
(B) Oncologists
(C) Nursing staff
(D) Audiologists
(E) Pharmacists
(F) Other, please specify_____

3.7. What patient challenges are experienced?
(A) Patients too ill to attend the audiology clinic
(B) Patients tested in the wards due to poor immunity and isolation
(C) Environmental noise challenging when testing in ward environment
(D) Other, please specify_____

4. Monitoring Protocols (To be completed by Audiologists)

4.1. Does your Audiology department have ototoxicity monitoring protocols?
(A) Yes
(B) No
(C) Unsure

4.2. Are the protocols written down?
(A) Yes
(B) No
(C) Unsure

4.3. Is it compulsory to follow the protocols or are they just guidelines?
(A) Compulsory
(B) Guideline
(C) Unsure

4.4. How often are the protocols followed?
(A) never
(B) sometimes
(C) most of the time
(D) always

4.5. How much time is typically allocated for a first appointment with this type of patient?
(A) 0-30 minutes
(B) 30-60 minutes
(C) 60 -90 minutes
(D) 90-120 minutes

(E) 120 minutes+

4.6. What baseline audiometric data is typically collected (select all that apply)?
(A) Pure tone air conduction
(B) High frequency audiometry
(C) Distortion Product Oto-acoustic emissions
(D) Vestibular assessments, please specify_____

4.7. Where did this list or practice come from?
(A) Just what's done here/hospital protocol of unknown origin
(B) Hospital protocol of known origin, please specify
(C) Existing published protocol, please specify
(D) Protocol followed exactly
(E) Protocol is modified
(F) What is asked for by referring clinician

4.8. What factors influence what you measure?
(A) Clinical necessity
(B) Best practice
(C) Equipment owned by hospital/practice
(D) Equipment owned but not always available (e.g. being used).
(E) Available time for appointment
(F) Audiologist training or knowledge
(G) Other, please specify

4.9. After the first set of results is obtained, are reports sent to anyone? If so, who (select all relevant answers)?
(A) Oncologist
(B) Nursing staff
(C) Pharmacists
(D) Patient
(E) Other, please specify

4.10. How do you think this audiometric information is used by the referring clinician (select all relevant aspects)?
(A) Influences treatment choices
(B) Influences dosage choices
(C) Ensures oto-protective agents (e.g. N-acetylcysteine (ACC-200®) are prescribed
(D) Ensures follow-up appointment/referral with audiologist
(E) Ensures frequent visits to the audiologist

4.11. What serial monitoring audiometric data is typically collected (select all that apply)?
(A) Pure tone air conduction
(B) High frequency audiometry
(C) Distortion Product Oto-acoustic emissions

(D) Vestibular assessments, please specify_____

4.12. Who decides when the ototoxicity monitoring appointments stop?
(A) Oncologist
(B) Audiologist
(C) Pharmacist
(D) Other, please specify_____

4.13. How long after treatment should ototoxicity monitoring appointments stop?
(A) 3 months
(B) 6 months
(C) 12 months
(D) Immediate

5. Suggested improvements in ototoxicity monitoring

5.1. Do you think anything needs to be done at your DHB to improve ototoxicity monitoring practice or hearing and balance outcomes for patients receiving potentially ototoxic treatments?
(A) Yes, please specify
(B) No
(C) Unsure

5.2. Is there a need for greater instruction/awareness among health professionals?
(A) Yes
(B) No
(C) Unsure

5.3. Is there a need for greater instruction/awareness among oncologists?
(A) Yes
(B) No
(C) Unsure

5.4. Would you be in favour of a national ototoxicity monitoring protocol to be used by all hospitals?
(A) Yes
(B) No
(C) Unsure

5.5. If there was a national ototoxicity programme, would you follow it?
(A) Yes
(B) No
(C) Don’t know
(D) Would modify to suit my setting

5.6. Would having a national protocol make it easier for you to get that equipment (in terms of lobbying for it)?
   (A) Yes
   (B) No
   (C) Unsure

5.7. Would a novel monitoring approach (i.e. using mobile phone devices for monitoring) at the patient's bedside be beneficial?
   (A) Yes
   (B) No
   (C) Unsure

Thank you for taking the time to complete this questionnaire.