## Patterns of Hearing Impairment as seen in patients coming for Audiological Assessment to the Kenyatta National Hospital

A dissertation in part fulfillment for the degree of Master of Medicine,

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## DECLARATION

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## Abstract

**Objective**: To study the Patterns of Hearing Impairment as seen in patients coming for Audiological Assessment to the ENT Department at Kenyatta National Hospital, Nairobi, Kenya.

Design: Descriptive cross-sectional survey.

Participants: Patients coming for Audiological Assessment to the ENT Department at Kenyatta National Hospital, Nairobi.

Main outcome measure: Hearing impairment, defined as average of audiometric threshold values of more than 25 dB HL at the frequencies 0.5, 1, 2 and 4 kHz.

Methods and materials: A total of 231 patients were enrolled. A brief history was taken from each patient and otoscopy done. Audiological assessment - Pure Tone Audiometry (PTA), play audiometry or Auditory Brainstem Response (ABR), was carried out for each participant.

Results: There were 121 (52.4%) males and 110 (47.6%) females in the study. The youngest patient was four months old and the oldest was 96 years old with a median age of 24 years. Hearing Loss was found to be profound in 31.6%, moderate in 23.8%, severe in 17.3% and mild in 10% patients. Normal hearing was found in 17.3% of the patients. Sensori-neural hearing loss was found in 50.6%; conductive hearing loss was 18.6% and mixed hearing loss in 13.5%. The causes of HL encountered were CSOM (21.6%), head injury (3%), and ototoxicity due to medication (17.8%).

Conclusion: Most of the affected patients (72.7%) had disabling hearing loss. The most common type of HL was sensori-neural at 50.6%. The age group most affected was below 10 years (23.4%). Overall, Chronic Suppurative Otitis Media was the most common cause of HL (21.6%).