

# An Audit of Otorhinolaryngological Practice in a Tertiary Institution in the Niger Delta Region of Nigeria.

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## ABSTRACT

**Background;** The Niger Delta University Teaching Hospital (NDUTH) is a young tertiary hospital with recently established department in various specialties. In spite of this it caters for the health needs of a lot of the patients in Bayelsa state and its environs. The aim of this study therefore is to audit the otorhinolaryngological (ORL) practice in this centre with the aim of establishing the pattern of ORL disease which is useful for the planning of effective ORL services

**Patients and methods:** This is a retrospective study of patients that presented to the ear, nose and throat department of NDUTH from January 2007 to December 2011. The patient's folders and clinic records were the source of data.

**Results:** There were 2,275 patients seen within the period under study. The age ranged from 3months to 80 years. Patients who were in the 21-30 year age group (21.1%) were the most frequently seen. There were 1,150(50.55%) males and 1,125(49.45%) females with a male female ratio of 1.02:1. The adults were 1,725(75.82%) while the children were 550(24.18%). Otologic conditions ranked highest in the clinic presentations with wax impaction being the commonest ear disorder encountered. There were about 573 (25.19%) procedures done within this period. Aural syringing was the commonest procedure. There was no major theatre procedures carried out.

**Conclusion:** The otorhinolaryngologic practice in the centre is growing and otologic

diseases appear to be the most common conditions seen. There is therefore need to equip both the theatre and clinic so as to offer effective care. Audiological services also are relevant for the rehabilitation of these patients in view of the considerable number with hearing loss. The ORL practice here appears quite elementary. Therefore there is a need to vigorously equip the department

## INTRODUCTION

There has been an improvement in ORL (otorhinolaryngology) practice generally in the country in the last decade with more centers being established and offering this specialized practice. In 1998, there were few practicing ORL surgeons in Nigeria, about 32, estimated to be 1 ORL surgeon per 3 million of the population.<sup>1</sup> The statistics has doubled a decade after<sup>2,3</sup> however; otolaryngology practice in developing countries has remained inadequate<sup>4</sup>

In the Niger delta region of the country, there are no available published data however, there are even fewer ORL surgeons and residents in training with inadequate diagnostic and therapeutic facilities.

Niger Delta University teaching hospital is located presently in its temporary site at Okolobiri. It caters for the health needs of majority of the riverine areas of Bayelsa state and its environs. Up until about a year ago, it was the only institution offering ORL services in the state.

In the previous years, the hospital was functioning as a general hospital before it was

upgraded and at that time the ORL department was manned only by the ENT trained nurse with a visiting medical officer with basic training in ORL.

With the up grading to a teaching hospital, there has been an improvement, with two ORL surgeons in addition and prospects for more nurses.

Due to the fact that the centre is growing, an audit of the prevailing ORL disease pattern will be useful in planning effective ORL service delivery. It is on this background that this study seeks to evaluate the profile of ORL practice in the NDUTH.

## PATIENTS AND METHODS

This was a 5 year descriptive retrospective study from January 2007 to December 2011 of patients that presented to the otorhinolaryngology (ORL) department of NDUTH within this period. The patients' folder and the clinic records were the source of data. The age, sex, clinical presentations and management were analyzed. Results were presented in simple descriptive tables.

## RESULTS

The total number of patients seen over the period of the study was 2,275.

The year 2011 recorded the highest number of patients 640 with about 78.13% of this being new cases. The year 2007 had the least number of cases. Table 1.

The age range was from 3months to 80 years. The average age was 48years.

The age group 21-30 were most commonly seen 480(21.10%) while the patients aged 71+ were

**Table 1: Yearly distribution of patients**

Year	Number of patients	New	Old
2007	300	160	140
2008	335	168	167
2009	480	350	130
2010	520	480	40
2011	640	500	140
Total	2275	1658	617

**Table 2; Age distribution**

Age(yrs)	Number of patients	Percentage (%)
0-10	380	16.70
11-20	350	15.38
21-30	480	21.10
31-40	365	16.04
41-50	250	11.00
51-60	200	8.79
61-70	150	6.59
71+	100	4.40
Total	2,275	100

Pattern of diseases: The spectrum of ORL disease presentation is as shown in table 3.

Otology: Case 2.144(94.24%) were the commonest presentation followed by Rhinology: 74 (3.25%) and Laryngology: 42 (1.85%) cases.

Wax impaction was the commonest condition seen 580 (25.49%). This was followed by otitis externa and CSOM. 19.78% and 18.46% respectively. Table 3.

Disease condition	Number of patients	Percentage(%)
<b>Otology</b>		
Chronic suppurative otitis media	420	18.46
Acute otitis media	250	10.99
Wax impaction	580	25.49
Otitis externa	450	19.78
Tinnitus	130	5.71
Aural polyp	10	0.44
Preauricular sinus	5	0.22
Sensorineural hearing loss	160	7.03
Otitis media with effusion	100	4.40
Foreign body insertion	20	0.88
Traumatic Tympanic membranep perforation	19	0.84
<b>Rhinology</b>		
Nasal polyps	12	0.53
Epistaxis	10	0.44
Obstructive adenoiditis	15	0.66
Nasopharyngeal cancer	2	0.09
Foreign body insertion	15	0.66
Chronic rhinosinusitis	20	0.88
<b>Laryngology</b>		
Pharyngotonsillitis	25	1.10
Laryngeal cancer	2	0.09
Chronic laryngitis	15	0.66
Others		
Injuries from road traffic accidents	10	0.44
Gunshot injuries	5	0.22
Total	2,275	100

Treatment procedures: The number of procedures done was 573 (25.19%). Commonest was aural syringing followed by

**Table 4: Procedures Done**

Procedures	Number
Polypectomy	8
Foreign body extraction	35
Aural syringing	500
Excision biopsy	2
Pure tone audiometry	20
Nasalpacking	8
Total	573

Majority of these procedures were done within years 2009 -2011. The only procedures done between 2007 and 2008 were mainly syringing.

The patients that presented with obstructive adenotonsillar hypertrophy were referred to UPTH for evaluation and surgery so also were those with chronic sinusitis and nasal polyps requiring surgeries. The patients seen with cancers of both the nasopharynx and the larynx were referred out for surgery and chemo radiation.

The personnel in the last 2 years comprised 2 ORL surgeons and 2 ORL trained nurses, there are no residents. In the Previous years it was just one ORL trained nurse with a visiting medical officer.

## DISCUSSION

The prevalence of ORL diseases seen in the hospital tends to be increasing. This is shown in yearly trend of patients who presented to the hospital. In 2007, the total number of patients was 300 with 140 of them being old cases. However from 2009, there was an appreciable increase with majority of the patients being new cases. This surge in patient attendance could be attributed to availability of personnel as it coincided with the period when a visiting medical officer was recruited. The last two years of the study also recorded a significant increase in patient attendance of 520 and 640 respectively which also coincided with the commencement of services by an ORL surgeon.

The study showed that the population of the patients was mainly comprised of adults 1,725(75.82%) while children comprised

24.18%. This is in contrast to other works where the proportion of children were found to be highest.<sup>5</sup>

The age group 21-30 was the highest population 21.10% of patients seen in contrast to a work done by Eziyi et al in Ife where the age group 0-9 years were most affected<sup>5</sup>. The explanation could be that the most prevalent disease they found was suppurative otitis media which is commonly found in children unlike the wax impaction found in this study.

The audit shows high prevalence of otologic disorders in agreement with some earlier works<sup>5-7</sup>. The finding of wax impaction as the commonest disorder (25.49%) agrees with findings by other researchers<sup>8,9</sup> who found otitis externa as the commonest condition (19.78%) while chronic suppurative otitis media was also one of the top ranking conditions 18.46% comparable with the findings of a study by Salisu Kano<sup>10</sup>. Rhinologic and laryngologic conditions ranked as the second and third predominant pattern of ORL disease. This is similar to the finding of Eziyi et al, though they had higher values in terms of percentage of patients seen in these groups in contrast to the lower values of 3.23% and 1.85% respectively seen in this study<sup>5</sup>.

There was a dearth of procedures from this audit in contrast to the report from another centre<sup>6</sup>. The paucity of procedures from this audit can be explained by the limitation of personnel and manpower gaps.

It was found as expected that more procedures were carried out when the ORL surgeons joined the workforce. This increase in procedures and services can be further increased while the number of referrals to other centre's can be reduced through the provision of requisite infrastructure for ORL surgical procedures.

Majority of the procedures largely aural syringing were done in the outpatient clinic. This was also because of lack of facilities in the theatre for major procedures. This resulted in the referral of patients that presented with conditions requiring major theatre procedures to the

University of Port Harcourt teaching hospital; however few of the foreign bodies were extracted in the theatre.

The ENT ward is yet to be properly established because there is only one ENT trained nurse and considering that the specialty has its peculiar areas of nursing, this is not enough to meet the expected demand for patient care.

The result of this audit has identified areas of need in the ORL services and recommends therefore that emphasis should be placed on equipping both the clinic and theatre with the capacity for otology services and procedures in order to meet the needs of majority of the patients who had otologic diseases.

The establishment of a good audiology clinic to provide significant services for the hearing impaired will improve the quality of ORL services in the hospital.

The training, retraining and recruitment of more ORL surgeons and nurses is also required to scale up and improve the quality and effectiveness of ORL services in this institution.

In conclusion there is need to equip and therefore improve the otorhinolaryngologic

practice in this institution both for the training health and medical power as well as the improvement of patient care.

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