The Pattern of Admissions in the Medical Wards of Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi

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SUMMARY

Objective: To determine the pattern of admissions in the adult medical wards of the Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi from December 1990 to December 1992 with particular focus on age, sex ratio, prevalence of local illnesses and duration of sojourn in hospital.
Method: A retrospective analysis was done using the admissions register and folders of patients seen during the period. Results have been presented in tables and histograms.
Results: The mean age at admission was 39 years, while 14.4% of cases were in the age group of 41 – 50 years and 61 – 70 years. Diabetes was the commonest indication for admission followed by congestive cardiac failure. The mean duration of sojourn in hospital was 12 days, while most (20.8%) cases were admitted for 11 –15 days followed by 20.3% of cases for 6 – 10 days. Despite the fact that the analysis spanned for only 2 years compared with longer duration in other studies, our findings were similar to those from other centres.
Conclusion: In Nnewi, South-East of Nigeria, almost half (46.9%) of all medical admissions were due to chronic medical illnesses namely Diabetes, CCF, hypertension and CVA. This may reflect the fact that most cases of infections are treated at the primary and secondary care levels.

Key Words: *Medical Admission, Diseases Pattern, Age and Sex Distribution*

INTRODUCTION

Nnamdi Azikiwe University Teaching Hospital Nnewi was formerly the General Hospital Nnewi. In December 1988, it was renamed Anambra State University Teaching Hospital (ASUTECH) under the Anambra State Government. In 1991, it was named after the first President of the Federal Republic of Nigeria, the Rt. Hon. Dr. Nnamdi Azikiwe, hence the new nomenclature - Nnamdi Azikiwe University Teaching Hospital (NAUTH). In September 1992, it was taken over by the Federal Government of Nigeria and consequently joined the ranks of Federal Teaching Hospitals in Nigeria.

The pattern of admissions and discharges in any hospital is an extremely important epidemiological instrument in view of its implications on patient care, incidence of disease, staff development and deployment, mortality pattern as well as an overall evaluation of the essential drug-list and equipments in that hospital.

Lauckner, Rankin and Adi[1] analysed the pattern of admission at the University College Hospital (UCH), Ibadan from January to December 1958. They showed that the commonest indication for admissions over this period was Diabetes Mellitus. Osuafor[2] in a study of the pattern of admission at the Park Lane General Hospital Enugu, over six years period (1984 - 1989) showed that the commonest indication for admission in the Medical Wards was Diabetes Mellitus, followed by Congestive Cardiac Failure. To our knowledge, there has been no study of the trend at the NAUTH Nnewi. This was what informed this present retrospective analysis.

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This study of the pattern of admissions to the medical wards of the NAUTH, Nnewi was done to determine the age and sex incidence, major indications for admission and the duration of sojourn in hospital.

MATERIALS AND METHODS

The register of admissions and discharges in the medical wards from December 1990 to December 1992 was used for the analysis. The data extracted from these registers include age, sex, date of admission, date of discharge and diagnosis. Where the diagnosis was in doubt, the case note was collected from the Medical Records Unit to determine the diagnosis.

The data were then analysed to determine the age, sex and disease pattern and duration of sojourn in hospital. If a patient was admitted more than once for the same diagnosis, only the initial entry was used for the analysis.

RESULTS

Of the 530 patients analysed, males accounted for 279 (52.6%); and females for 251 (47.4%) giving an M/F ratio of 1.1:1.

Fig 1 summarises the age distribution. The peak ages were in the range 21 - 30 years (14.9%), 41 - 50 years (14.5%). The ages of 74 patients (14%) were recorded as "adults". About 197 (31.2%) of the patients were aged 40 years or below.

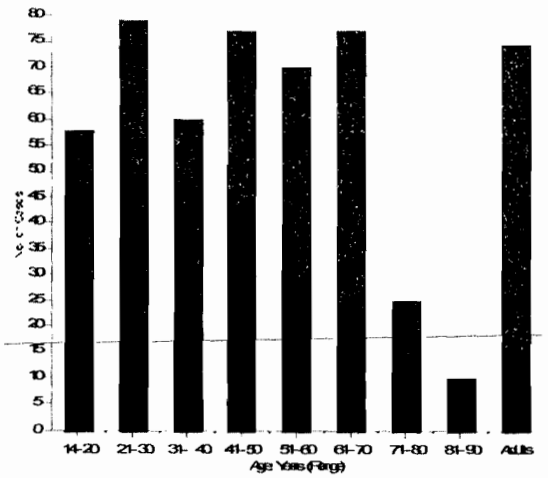

Fig. 1: Age Mode

Table 1 summarises the principal diagnosis of the patients. The three leading diagnoses were diabetes mellitus, which accounted for 88 (16.6%) cases; congestive cardiac failure, which accounted for 65 (12.3%) cases; and hypertension (unclassified), which accounted for 56 (10.6%) cases.

Table 1: Major Indications For Admissions

Diseases	No of Cases	%
Diabetes Mellitus	88	16.6
Congestive Cardiac Failure	65	12.3
Hypertension	56	10.6
Cardio-Vascular Accidents	39	7.4
Acute Hepatitis	37	7.0
Lobar Pneumonia	35	6.6
Malaria	32	6.0
Anaemia	27	5.1
Liver Cirrhosis	16	3.0
Chronic Renal Failure	15	2.8
Nephrotic Syndrome	12	2.3
Bronchial Asthma	12	2.3
Pulmonary Tuberculosis	11	2.1
Peptic Ulcer Disease	11	2.1
Typhoid Fever	11	2.1
Cholestasis of unknown cause	9	1.7
Sickle Cell Disease	7	1.3
Meningitis	7	1.3
Intra-Abdominal Malignancy	7	1.3
Amoebic Liver Disease	6	1.1
Epilepsy	6	1.1
Liver Failure	6	1.1
Primary Liver Carcinoma	5	0.9
Cor-Pulmonale	5	0.9
Leukaemia	5	0.9
Total	530	100

Table 2 summarises the duration of sojourn in hospital. Majority of the patients [323 or 61%] stayed between 1 - 15 days in the hospital.

Table 2: Duration Of Sojourn In Hospital

Duration of Stay (Days)	No of Cases	%
1-5	105	19.8
6-10	108	20.4
11-15	110	20.8
16-20	48	9.1
21-25	48	9.1
26-30	31	5.9
31-35	18	3.3
36-40	25	4.7
41-45	18	3.3
46-50	5	0.9
51-55	6	1.1
56-60	2	0.4
61-65	2	0.4
≥66	4	0.8
Total	530	100

DISCUSSION

The pattern of admission in a hospital is of utmost importance in terms of the epidemiology of diseases in that environment as well as in the provision of equipment, drugs and manpower in such health institutions. The admission pattern in this study, showed a preponderance of males as was the case in Ibadan by Lauckner, Ranken and Adi[1]. These workers postulated that the male preponderance "reflects the men's better educational standard and greater willingness to come to hospital". Are men indeed more willing than women to go to hospital or is it a greater tendency for men to be admitted in hospital? Osuafor[2] in an analysis of the pattern of Medical Admissions at the Park Lane General Hospital (PLGH) Enugu over two years (1986 - 87), found a male preponderance M:F (1.45:1), and a similar trend for the surgical ward 1.6:1. The admission in the paediatric ward in the same hospital showed a m:f ratio of 1.2:1. An analysis of the out-patient attendance by the same author[2] over two (2) years (1986 - 88) in different hospitals revealed the following:

CLINIC/HOSPITAL	M:F
GOPD/PLGH, Enugu	0.7:1
GOPD/UNTH, Enugu	0.8:1
GOPD/General Hospital, Abakaliki	1:1
GOPD/NAUTH, Nnewi	1:1.2

Thus, all these series showed a female preponderance in the out-patient clinic, except at Abakaliki where the M & F incidence were equal. In fact, Odigwe and Esin[3] also observed female preponderance in their out-patient cardiovascular cases in Calabar while more males were admitted. One would therefore suggest that since more females attend the out-patient clinics, it may be partly due to better overall self-discipline and inclination by women more than men to attend the hospitals; and also because the women traditionally bring their sick children to hospital, they (the women) would use that opportunity to present their medical problems early enough, thus they get treated. In that case, the tendency for them to present later with complications, thus necessitating admissions, will be minimized. This is in contrast to the men who would usually shy away from going to the hospital presumably, because they are busy in the farm or with their business enterprises. In addition, men are wont to present other philosophical explanations for their illness even after scientific explanations. These men default in their clinic appointments and, thus, present late with complications, and even then, many accept admission reluctantly. They would also press for early discharge as soon as they notice the slightest improvement.

Another explanation for the male preponderance in the in-patient admissions in this country may be related to our socio-cultural values in which a higher premium is placed on the importance of male sex, unlike the situation in advanced countries. Thus, in Nigeria, if a male is sick and if he happens to be the only one

in the midst of female siblings, the parents, especially the mothers, are more anxious and inclined to send him to hospital and press for his admission. His survival is crucial to the survival of the family lineage. This might have contributed to the male preponderance in our admissions.

The age distribution shows that most patients were 70 years or below with the peaks in the 21 to 30, 41 to 50 and the 61 to 70 year age groups. Unlike in Lauckner et al's series[1] where 80% were aged below 40 years, only 31.7% of our cases were 40 years and below. We have not observed reluctance by older people to come to hospital as suggested by Lauckner et al[1]. Instead one would suggest that young people in a commercial town such as Nnewi, who are in "hurry to catch up", might in fact be more reluctant to come in for admission. This may account for the age disparity between UCH and NAUTH. Furthermore, the observation at Ibadan was made at least 38 years ago. That view could hardly be tenable now.

The commonest diagnosis of Diabetes Mellitus followed by Congestive Cardiac Failure is similar to that of Lauckner et al[1], and the findings of Osuafor[2] at the Park Lane General Hospital, Enugu. The overall spectrum of diseases in the environment is fairly well reflected by Table 1. However, unlike the situation at UCH where tuberculosis accounted for 14.3% of the admission and a specific ward is allocated for the treatment, at Nnewi it accounted for 2.1% of cases. This is because most cases of smear-positive patients at Nnewi are referred to the General Hospital Onitsha, which runs a free treatment programme for TB.

The observation from this analysis of the importance of hypertension and its sequels as important causes of morbidity and mortality, as was also shown by Lauckner et al[1], Osuafor[2] Odigwe and Esin[3], Uzodike et al[4]; and diabetes mellitus as supported by Lauckner et al[1] underscores their public health importance and calls for relentless public health education for our people in preventive aspects of these diseases and early detection of hypertension by provision of sphygmomanometer in our public health institutions. This simple equipment (which has now become expensive) has continued to remain a luxury in general hospitals and even in Teaching Hospitals. For instance, Osuafor[2] has shown that it was only in 2.7% of cases that Blood Pressure was measured in the adult General Out-Patient Clinics at PLGH, Enugu; 2.5% at the General Hospital Abakaliki, and 34.2% of cases at UNTH, Enugu, over a two-year period (1987 - 1988) due to the unavailability of sphygmomanometers in those hospitals. Also, the importance of keeping clinic appointments by patients can never be over-emphasized.

The default rate of our patients in this country has been lamented by Uzodike[4], and Osuafor[5]. The fact that our patients, including some educated ones, 'expect miracle' for diseases such as Diabetes and Systemic Hypertension, and believe that herbalists and necromancers can cure these diseases calls for concerted action on health education by Health Workers at every level.

Finally, the government must do everything possible to stabilize the currency. It is only then that essential drugs and equipment can be provided, and industrial action and brain drain minimized. These will ensure maximum productivity in the health sector, thus, leading to a healthy and wealthy nation.

CONCLUSION

This study reveals that in Nnewi, South-East of Nigeria, almost half (46.9%) of all medical admissions were due to chronic medical illnesses namely diabetes mellitus, congestive cardiac failure, hypertension and cardio-vascular accidents. That there are few infective illnesses in this series may reflect the fact that most cases of infections are treated at the primary and secondary health care levels.

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