DISEASE PATTERN AND FATALITY AMONG PATIENTS TREATED AT DHQ HOSPITAL, FAISALABAD

Pages with reference to book, From 52 To 53

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ABSTRACT

A pilot study was undertaken to assess the pattern of diseases, fatality and some other ratios among the patients treated at District Headquarters Hospital, Faisalabad during 1984. Out of 4,506 in-patients, maximum admissions 1,196 (26.54%) were of gastrointestinal diseases followed by795 (17.64%) cases of injuries. Overall fatality was found to be6,35%. Te highest case fatality was found in the infectious diseases group, while maximum of the total deaths (20.98%) occurred due to injuries. Consistency in provisional and final diagnosis was found in 86.20% of total oases. The annual turnover was 41 patients per bed per year (JPMA 43: 52, 1993).

INTRODUCTION

Urbanization, industrialization and pollution especially in developing countries is probably creating a new disease pattern in the communities. Occupational diseases, injuries and accidents are gaining more and more importance. in this situation morbidity statistics become more important and provide information about fatal and non-fatal illnesses. Grant[1] emphasized the need of health statistics for public health workers whereas Ahmed and Smythe[2] described hospital based study, the only available approximation of community needs. A pilot study was undertaken to assess the pattern of diseases, fatality caused by them and some other ratios from record of patients treated at District Headquarters Hospital, Faisalabad. The hospital consists of 504 beds[3], covering a 3.56 million population[4] of district Faisalabad while the number of hospital beds in the district was 1,246 during the study year 1984.

The specific objectives of the study were:

i) to find out relative frequency of different diseases; ii) to determine case fatality rate; iii) to study the consistency in provisional and final diagnosis and iv) to determine annual turnover, i.e., discharges per year per bed.

METHODOLOGY

The universe of this pilot study contained all surgical and medical beds of District Headquarters Hospital Faisalabad during 1984. Thirty-three percent of these beds were included in .the sample. The data regarding sex, provisional diagnosis, final diagnosis, date of admission, date of discharge and outcome of treatment, of in-patients were collected from the hospital records (bed head tickets) and compiled for presentation and statistical analysis. Case fatality rate was determined by the following formula[5]:

$$\text{case fatality rate (cFR)} = \frac{\text{No. of deaths due a particular far disease}}{\text{No. of cases of the same disease}} \times 100$$

RESULTS

Of the total 4,506 patients, 2,678 were males and 1,828 females, with 1,196(26.54%) having gastrointestinal diseases, this being the highest among all the disease groups, followed by 795 (17.64%) patients with injuries. Of 2,678 male patients, 675 (25.21%) had gastrointestinal diseases and 569 (21.25%) injuries as against 521 (28.50%) and 226(12.36%) of 1,828 female patients in the respective disease groups. Relative occurrence of genitourinary tract, cardiovascular system and respiratory cases were 548 (12.16%), 339 (7.52%) and 296 (6.57%) respectively (Table I).

TABLE I. Distribution of patients by disease groups and sex.

Disease group	Male (2,678) %	Female (1,828) %	Total (4,506) %
Gastrointestinal tract	25.21	28.50	26.54
Injuries	21.25	12.36	17.64
Genitourinary tract	13.67	9.96	12.16
Cardiovascular system	6.72	8.70	7.52
Respiratory	6.31	6.95	6.57
Central nervous system	6.68	4.65	5.86
Endocrines	1.68	4.54	2.84
Infectious	2.76	1.53	2.27
Congenital anomalies	1.05	3.66	2.11
Miscellaneous	12.43	14.50	13.27
Not known	2.24	4.65	3.22
Total	100	100	100

Figures in parenthesis indicate total number of cases.

The overall fatality was 6.35%. The highest case fatality rate was found to be 24.5 1% in infectious diseases group followed by 10.92%, 9.80%, 7.55% in cardiovascular diseases, respiratory diseases and injuries group respectively whereas maximum of total deaths i.e., 20.98% occurred due to injuries (Table II).

TABLE II. Outcome of treatment among disease group of patients.

Disease group	Improved %	Lama %	Expired %	Not known %	Total %
Gastrointestinal tract (1,196)	76.09	15.64	4.93	3.34	100
Injuries (795)	73.96	15.60	7.55	2.89	100
Genitourinary tract (548)	80.66	13.14	2.55	3.65	100
Cardiovascular system (339)	53.39	29.79	10.92	5.90	100
Respiratory (296)	55.74	28.38	9.80	6.08	100
Central nervous system (264)	64.39	23.86	7.20	4.55	100
Endocrines (128)	68.75	25.78	3.91	1.56	100
Infectious (102)	56.86	16.67	24.51	1.96	100
Congenital anomalies (95)	86.32	8.42	3.16	2.10	100
Miscellaneous (598)	69.40	21.07	3.01	6.52	100
Not known (145)	36.55	34.48	11.73	17.24	100
Total (4,506)	69.95	19.20	6.35	4.50	100

Figures in parenthesis indicate total number of cases.

The consistency in provisional and final diagnosis was 86.20% of total cases (Table III).

TABLE III. Consistency in provisional and final diagnosis.

Group	Patients	
	No.	%
Provisional and final diagnosis same	3,884	86.20
Provisional and final diagnosis different	137	3.04
Final diagnosis not specified	340	7.54
No diagnosis	145	3.22
Total	4,506	100

The annual turnover (the number of patients per bed per year) was 41 while average stay of patients at hospital was 7.52 days.

DISCUSSION

The present study shows that gastrointestinal diseases are most prevalent in the area mounting to 26.54% of total admissions. This could be due to usual ingestion of adulterated food and poor quality of drinking water. The injuries group which includes accidents and homicidal cases is second in frequency and accounts for 17.64% of total cases. As Faisalabad is the third largest city of Pakistan after Karachi and Lahore, with a population[4] of 1.10 million, the thickly populated industrial area where road traffic is also a big problem may possibly be the reason for the second high admission rate of injuries cases. The high case fatality (24.51%) caused byinfectious diseases including tetanus and gangrene as welt as maximum of the total deaths (20.98%) due to injuries, is in accordance with the government statistics for Faisalabad district[3]. Both these figures are alarming. A consistency of 86.20 percent in provisional and final diagnosis of the total cases is very encouraging. However, diagnostic inaccuracy may probably be affected by the training, skills and interests of the attending physician, advances in medical knowledge of pathogenesis, differences in the availability and use of special investigations. The turnover of the patients (41) in the present study is an extremely high figure as compared to many other institutions and countries of the world where it ranges from 22 to 28 patients[3,6-9] per bed per year. The reason may be that the patients are discharged early than required to meet the shortage of beds. This is also supported by the average duration of hospital stay, 7.52 days as compared to the available figure 12.4 days[7] for Jinnah Postgraduate Medical Centre, Karachi. The recommendations requiring immediate attention by the authorities, are training of doctors according to relative occurrence of diseases, more facilities at emergency care unit, hospital beds according to population requirement and improvement in case recording and maintenance of morbidity data.

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