

# The Central African Journal of Medicine



*Editor:*

MICHAEL GELFAND, C.B.E., M.D., F.R.C.P.

*Assistant Editor:*

JOSEPH RITCHKEN, M.D.

---

**Volume Nineteen**  
**JANUARY - DECEMBER**  
**1973**

---

REFERENCES

BELDING, D. S. (1965) *Textbook of Parasitology*. Appleton-Century-Crofts. N.Y. 3rd Edition. p. 461.  
 CAPRON, A. AND ROSE, R. (1962) *Bull. de la Soc. Exotique*, **55**, 765.  
 ELSDON-DEW, R. (1964) *S. Afr. med. J.*, **38**, 974.  
 GOLDSMID, J. M. (1968) *Trans. R. Soc. trop. Med. Hyg.*, **62**, 619.  
 GRAHAM, C. F. (1941) *Am. J. Trop. Med.*, **21**, 159.  
 MAZZOTTI, L. (1944) *Rev. Inst. Salub. y. enferm. trop.* **5**, 283.  
 MOSSOP, R. T. (1973). *C. Afr. J. Med.* **19**, 2, 31.  
 PAWLOWSKI, Z. AND SCHULTZ, M. G. (1971) *Adv. in Parasitology*, **10**, 267.  
 SCHULTZ, M. G., HALTERMAN, L. G., RICH, A. B. AND MARTIN, G. A. (1969) *J. Am. Vet. Med. Ass.*, **155**, 1708.  
 SCHULTZ, M. G., HERMOS, J. A. AND STEELE, J. H. (1970). *U.S. Public Health Reports*. **85**, 2.  
 STOLL, N. R. (1947) *J. Parasitology*, **33**, 1.  
 THORNTON, H. AND GOLDSMID, J. M. (1969) *C. Afr. J. Med.* **15**, 47.  
 VERSTER, A. (1967) *Z. f. Parasitenkunde*, **29**, 313.

PATIENTS AND METHODS

A prospective survey was carried out of patients discharged from hospital during the five month period from 30th January, 1969 to 26th June, 1969 who were given appointments to attend one of two specific clinics weekly one to four weeks after discharge. Only the attendance at the first out-patient appointment was considered.

The patients were drawn from the medical unit of one of four medical consultants practising at Harare Hospital. On discharge they were informed of their appointments by the nursing staff and were given an appointment card with details of the diagnosis and treatment.

Those who attended on the wrong day and those who were known to have died or to have been readmitted in the interim formed a miscellaneous group of 16 patients who will not be discussed further.

New diabetic patients were considered separately because of their attendance at a special diabetic clinic held twice monthly.

Eighteen months after the completion of the survey the notes of these patients were re-examined and a record made of readmission or death as reported in the notes. One set of notes could not be traced.

RESULTS

Table I indicates the rate of turnover of patients in the unit in question. The total number of patients discharged home from the medical unit during the period under consideration was 481 and of these 263 (55 per cent.) were new patients who were asked to return to out-patients for follow-up. Thus roughly half of all discharges fulfilled the criteria for this survey.

Table I

TURNOVER OF PATIENTS IN THE UNIT FOR THE FIVE MONTH PERIOD FROM FEBRUARY, 1969 TO JUNE, 1969.

Total Discharges Home	Total New Appointments	% Appointments
481	263	55 %

Table II

ATTENDANCES RELATED TO PATIENTS' SEX

Sex	Attendances	Non-Attendances	% Attendance
Male	75	71	51%
Female	40	47	46%
Total	115	118	49%

Male to Female ratio = 146 to 87 = 1.7 to 1.

## A Follow-up Survey of Out-patients in a Medical Clinic for Africans at Harare Hospital in Rhodesia

BY

SIRJE A. MAAR,

M.B., B.S. (LOND.), B.SC., M.R.C.P. (U.K.)  
Physician, Umtali General Hospital

INTRODUCTION

It was an early impression when commencing work in a medical unit at Harare Hospital that a large proportion of patients failed to return to the out-patient clinic on discharge from hospital despite the chronic or serious nature of their disease. An attempt was therefore made to assess the magnitude of the problem, it seeming both of interest and importance to the practising physician at Harare Hospital to know more exactly the likelihood of a patient returning for follow-up care, especially where circumstances may force an early discharge due to pressure on beds. These estimations seemed relevant when considering the African patient who usually has no regular private practitioner and relies more heavily on the hospital or clinic. It must also be considered in relation to the costs of modern in-patient care and treatment which may be considered wasted if patients are not followed up. In these cases re-admission may involve further intensive therapy and expenditure which could have been prevented. These thoughts initiated a five months' survey of return attendances which will be compared to similar problems in other areas.

The results set out in Tables II-VII confirm the impression of a remarkably poor reattendance rate after discharge from hospital. In fact the attendance rate was 49 per cent., as out of 233 patients, 115 attended and 118 failed to attend.

Table II shows attendances related to patients' sex and although a male to female preponderance of 1,7 to 1 is demonstrated, the attendance rates for males and females were of the same order, being 51 per cent. and 46 per cent. respectively (Chi square test not significant).

Table III

ATTENDANCES RELATED TO CLINIC DAYS

Day	Sex of Patient	Attendances	Non-Attendances	% Attendance
Monday	Male	33	42	44%
	Female	16	22	42%
		49	64	43%
Thursday	Male	42	29	59%
	Female	24	25	49%
		66	54	55%
TOTAL		115	118	49%

Table III shows attendances related to clinic days and again the attendance is of the order of 50 per cent. Apparent differences such as a lower male attendance for Monday clinics (44 per cent.) than for Thursday clinics (59 per cent.) are not statistically significant (Chi square test).

Table IV

ATTENDANCES RELATED TO TIME PERIOD BETWEEN DISCHARGE AND NEXT OUT-PATIENT APPOINTMENT

Period in weeks	Attendances	Non-Attendances	% Attendance
1	18	13	58%
2	36	38	49%
3	13	16	45%
4	42	49	46%
Unspecified	6	2	
Total	115	118	49%

Table IV relates attendances to the time period between discharges and the next out-patient appointment and Table V relates attendances to the month of the out-patient appointment. Neither factor has a significant effect on attendance.

Thus the attendance rate of 49 per cent. is unaffected by factors such as sex differences, preference for a particular clinic day, the time lapsing before out-patient attendance or the month of the appointment.

Table V

ATTENDANCES RELATED TO THE MONTH OF THE OUT-PATIENT APPOINTMENT

Month	Attendances	Non-Attendances	% Attendance
February	8	14	36%
March	15	21	42%
April	26	24	52%
May	34	31	52%
June	26	19	58%
July	6	9	40%
TOTAL	115	118	49%

Table VI relates out-patient attendance to the discharge diagnosis. The diagnoses are classified under systems affected and in order of prevalence. Twenty-five double diagnoses were made and the group of 14 diabetics have been added, making a total of 272 diagnoses in 247 patients. This represents an analysis of the major conditions treated, diseases of the respiratory system representing the highest prevalence (27 per cent.), followed by those of the cardio-vascular system (18,7 per cent.) and the central nervous system (8 per cent.). The respiratory group consisted mainly of patients with asthma, pneumonia or lung abscess, whereas in the cardio-vascular group, Secretary of Health for his permission to publish. congestive cardiac failure patients with either rheumatic heart disease or hypertensive heart disease predominate. The central nervous system group has a preponderance of epileptics and of males (4,5 to 1 compared to the average male to female ratio of 1,7 to 1), but the apparently higher attendance rate (64 per cent. compared to the average of 49 per cent.) is not statistically significant.

Of the small series of new diabetics discharged in this five month period, 13 out of 14 reattended on the expected date showing a considerably higher attendance rate than other groups. Reasons for this will be discussed.

Table VII relates attendance to readmission or death 18 months later. It is shown that only 12 per cent. of the patients in this study had been readmitted and that three per cent. had died in this time. Attendance or non-attendance at the first out-patient appointment appears to have little bearing on the likelihood of re-admission or death

Table VI  
OUT-PATIENT ATTENDANCE RELATED TO DISCHARGE DIAGNOSIS

System Involved	No. of Patients	% Patients	Attendances	Non-Attendances	% Attendance
Respiratory	74	27%	30	44	41%
Cardiovascular	51	18,7%	27	24	53%
C.N.S.	22	8%	14	8	64%
Hepatic	20	7,4%	12	8	60%
Haematological Reticuloses	19	7%	11	8	58%
Alimentary	17	6,2%	11	6	65%
Renal	16	5,9%	9	7	56%
Diabetes	14	5,2%	13	1	93%
Rheumatic	13	4,8%	6	7	46%
Pyrexias	12	4,4%	6	6	50%
Miscellaneous	14	5,2%	3	11	22%
TOTAL	272	99,8%	142	130	52%

N.B. 25 double diagnoses were made and 14 diabetics included making a total of 272 diagnoses in 247 patients.

Table VII  
ATTENDANCES RELATED TO RE-ADMISSION OR DEATH WITHIN 18 MONTHS

	Number	%	Attendances	Non-Attendances	% Attendance
Not Admitted	197	85%	94	103	48%
Re-Admitted	28	12%	16	12	57%
Deaths	7	3%	4	3	57%
TOTAL	232	100%	114	118	49%

18 months later. Thus, of the 28 patients re-admitted, 16 had attended out-patients at the required time and so had four patients of the total of seven patients who died.

#### DISCUSSION

The attendance rate of 49 per cent. reported in this series is lower than any reported in the literature. Generally out-patient attendance has varied from 65 per cent. to 100 per cent. Factors which have been shown to affect attendance include distance from the hospital (Chamberlain, *et al.* 1966, and Fendall 1965), transport and access to the telephone (Alpert, 1964), individual attention and a remediable condition (Richardson *et al.*, 1964). Ill-health or well-being on a clinic day may itself affect out-patient attendance (Redhead and Reid 1963). Attendances can also be increased by individual efforts and enthusiasm, e.g. Turner, (1962), who achieved a 90 per cent. attendance rate for patients with tuberculosis in the Nyeri District of Kenya by meticulous follow-up methods. Similarly in Rhodesia, the follow-up rate for patients with tuberculosis at the end of 18 months was 85 per cent. (Westwater, personal communication).

Factors which may have reduced attendance here include distance from the hospital, financial difficulties involved in travel, failure of communication due to language barriers, attendance at another medical centre and a more fatalistic attitude to disease among the African population. The higher attendance of diabetics in this series may reflect the particular interest of the physician running the diabetic clinic, leading to a better explanation and understanding of the disease. It has also been suggested that diabetic Africans tend to be of a higher social grade (Gelfand and Forbes, 1963).

Examination of Table VI listing the prevalence of disease in this group of patients as a whole is of interest, in that the spectrum of disease correlates well with the diseases encountered in the out-patient department in the Groote Schuur Hospital (Nel, 1964) and differs from the West Indies (Montgomery, 1969), where there is a higher incidence of diabetes, coronary artery disease and rheumatic disorders and England (Priest, 1962) where 23,8 per cent. of out-patient referrals have no organic disease. The list of diseases also gives some indication of how

many patients (estimated as 153 of the total 233) would require continued medical surveillance. The strain of such increasing loads, estimated at 360 per year for this clinic alone would pose impossible burdens on the facilities and staff available.

How important is careful follow-up for the average patient discharged from hospital? Other series have stressed the risks in terms of mortality and morbidity of ex-hospital patients (Ferguson, 1961), but the prophylactic effect of out-patient care for ex-hospital patients has not been well established. In this series the records failed to demonstrate an advantage in terms of re-admission or death within 18 months, but the figures are incomplete as factual analysis of the fate of all patients was outside the scope of this survey.

In conclusion it has been shown that 49 per cent of ex-hospital patients failed to follow the advice of their medical attendants in terms of after care. These are the numerical facts of the problem. The questions which remain unanswered are how far each medical attendant should strive to provide effective after care for the chronic sick in the community, whether such care can be shown to be effective in maintaining the health of such patients in the community and to what extent the onus of seeking such medical care should rest with the patient rather than his attendant.

#### SUMMARY

In a prospective study of 233 medical patients discharged from a medical unit of Harare Hospital, only 115 (49 per cent.) attended for their follow-up appointments. Reasons for this are discussed in relation to social factors, discharge diagnosis and re-admission 18 months later.

#### ACKNOWLEDGMENTS

I wish to thank Dr. J. I. Forbes, Dr. S. Cornthwaite, Dr. W. Castle and Mr. D. R. Barley for their help with this paper and the Secretary of Health for his permission to publish.

#### REFERENCES

- ALPERT, J. J. (1964), *Pediatrics*, **34**, 127.  
CHAMBERLAIN, J., ACHESON, R. M., BUTTERFIELD, W. J. H. AND BLANEY, R. (1966), *Medical Care*, **4**, 81.  
FENDALL, N. R. E. (1965), *J. Tropical Medicine and Hygiene*, **68**, 12.  
FERGUSON, T. (1961), *Brit. Med. J.* **1**, 1242 and **2**, 5234.  
GELFAND, M. AND FORBES, J. I., (1963), *S. Afr. Med. J.* **37**, 1208.  
MONTGOMERY, R. D. (1969), *W. Ind. Med. J.* **8**, 119.  
NEL, B. M., (1964) *S. Af. Med. J.*, **38**, 827.  
PRIEST, W. M. (1962), *Lancet*, **2**, 1043.  
REDHEAD, I. H. AND REID, J. J. A. (1963), *Lancet*, **1**, 159.  
RICHARDSON, W. P., HIGGINS, A. C. AND AMES, R. G. (1964) *Amer. J. Pub. Health*, **54**, 1177.  
TURNER, P. P. (1962), *Tubercle*, **43**, 76.  
WESTWATER, M. L., (1971) (Personal Communication)



This work is licensed under a  
Creative Commons  
Attribution – NonCommercial - NoDerivs 3.0 License.

To view a copy of the license please see:  
<http://creativecommons.org/licenses/by-nc-nd/3.0/>

This is a download from the BLDS Digital Library on OpenDocs  
<http://opendocs.ids.ac.uk/opendocs/>