ARMY MORBIDITY RECORDS NEED OR NUISANCE?

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SUMMARY: Records of in-patients morbidity should serve a number of important functions in the army; these include providing statistics for research and planning. However there has been some suggestion that the two 'information systems' which convey this data are ineffectual. This hypothesis was explored by examination of statistics gathered for the years 1969 to 1977. Deficiencies in both information systems were discovered. It is suggested that there should be some revision of the methods of collecting morbidity statistics.

Introduction

The Army Medical Services are faced with the problem of providing a comprehensive system of health care under resource restraints. This demands efficient use of facilities, one of which is the system of collecting and recording morbidity statistics. The stated objectives of morbidity information are:-

- a. To record details of diseases and treatment for immediate and future use.
- b. To indicate the probable case loads in hospitals and hospital departments.
- c. To provide material for medical research and statistics.
- d. To provide information to the responsible authorities dealing with pension claims and for the investigation of complaints and enquiries which may arise.

There are two systems of collection of in-patient data. One system uses the form F Med 14 to report discharge data. The other system uses the form AF W3166 to report the numbers of admissions by diagnosis.

The F Med 14 system records full patient details including discharge diagnosis. These details are stored by computerisation. This system is 'record linked' but has the disadvantage that delay tends to occur in accumulating the information. It may be that unusual occurrences are well reported in comparison to the more common illnesses.

The AF W3166 system records numerically by diagnosis all admissions to medical establishments with in-patient facilities. The completed AF W3166 for each district and command is normally received by Stats (G) 4 by the middle of the month following that to which it relates. The AF W3166 form was designed with an emphasis on infectious diseases. Furthermore the disease groupings are currently coded according to the International Classification of Diseases (ICD) 8th revision, whereas F Med 14 has used the 9th revision since 1979.

This paper describes some of the results of an investigation into the effectiveness of the F Med 14 and AF W3166 systems.

Methods

The total number of admissions recorded (AF W3166) together with deaths and discharges (F Med 14) for the years 1969 to 1977 have been tabulated (Table I). The ratio of F Med 14 returns to AF W3166 numbers is illustrated graphically (Fig 1).

Table I
British Army males recorded admissions (AF W3166) and
death and discharges (F Med 14) for 1969 to 1977

Year	AF W3166 recorded admissions (number)	F Med 14 death and discharges (number)
1969	40,441	36,260
1970	35,996	29,897
1971	35,274	28,221
1972	37,183	28,897
1973	34,418	26,763
1974	32,352	25,479
1975	33,403	25,053
1976	34,020	25,064
1977	31,625	22,598

Fig. 1 Ratio of F Med 14 returns to AF W3166 notifications.
British Army males 1969 to 1977

For the F Med 14 system, the numbers of deaths and discharges of British Army males for the years 1969 to 1977 were obtained. These are summated according to Chapter of the ICD (8th revision). Similarly recorded were the numbers of admissions according to AF W3166. The two sets of data are compared (Table II).

For the F Med 14 system the number of patients falling into each three-digit category of the ICD were examined. Diseases are recorded for which there is an average of more than 150 discharges per year, but for which there is no request for specific information on the AF W3166 form.

Results

Table I — Number of recorded admissions (AF W3166) and deaths and discharges (F Med 14) of British Army males for the period 1969 to 1977.

Table II — Number of in-patients of British Army males by ICD Chapter. AF W3166 and F Med 14 data compared for the period 1969 to 1977.

Table III — British Army male discharges and deaths for the period 1969 to 1977. Three digit ICD diagnoses for which there averaged more than 150 discharges and deaths per year and are currently reported by AF W3166 under 'All other diseases'.

Figure 1 — Ratio of F Med 14 returns to AF W3166 notifications for British Army males for the period 1969 to 1977.

Table II
British Army males in-patients by ICD chapter, AF W3166
and F Med 14 data compared for 1969 to 1977

ICD chapter	Disease group	Number of patients	
		AF W3166 data	F Med 14 data
I	Infectious and parasitic	18,483	16,008
II	Neoplasm	1,565	2,674
III	Endocrine, nutritional and metabolic	31	2,159
IV	Blood diseases	*	608
V	Mental disorders	7,993	6,808
VI	Nervous disorders	3,720	5,653
VII	Circulatory diseases	4,078	7,349
VIII	Respiratory diseases	42,949	46,269
IX	Diseases of digestive system	12,178	32,775
X	Genito-urinary diseases	*	7,657
XII	Skin diseases	9,058	13,034
XIII	Musculoskeletal diseases	7,428	20,636
XIV	Congenital abnormalities	*	1,209
XVI	Symptomatic	1,857	18,827
	'All other diseases'	134,658	Not applicable
	Accidents, poisoning, violence	71,010	68,330
Totals		315,008	249,696

*Information not requested for all diseases in these chapters by AF W3166 and therefore numbers included in 'all other diseases'

Table III
British Army male discharges and deaths for the period 1969 to 1977.
Three digit ICD diagnoses for which there averaged more than 150
discharges and deaths per year are currently reported on AF W3166
under 'All other diseases'

8th ICD number	Description/diagnosis	Average number discharges and deaths (1969 to 1977)
465	Acute urinary tract infection	1418
504	Deflected nasal septum	255
520	Disorders of tooth development	372
521	Disorders of hard tissues of teeth	488
522	Disorders of pulp and periapical tissue	301
525	Other disorders of teeth	387
535	Gastritis/duodenitis	201
536	Disorder of function of stomach	152
605	Redundant prepuce	182
725	Displacement intervertebral disc	249
729	Other diseases of joints	324
731	Synovitis/bursitis/tenosynovitis	157
733	Other diseases of muscle	219
782	Cardiovascular symptoms	150
783	Respiratory symptoms	185
785	Abdominal symptoms	701
786	Genito-urinary symptoms	156
793	Observation	159

Discussion

The declining number of British Army male admissions between the years 1969 to 1977 appears to have been accompanied by a drop in the proportion of admissions for which F Med 14 is completed. There are serious discrepancies between numbers reported for each ICD Chapter by the two different systems of morbidity recording. About 40 per cent of AF W3166 numbers are reported under 'All other diseases' category; the information specifically requested in the AF W3166 form does not telegraph information regarding several illnesses affecting large numbers of Army personnel.

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