

Hospital Topics

Modes of Admission to Hospital: A Survey of Emergency Admissions to a General Medical Unit

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Summary

In a survey of the modes of referral and disposal of "acute patients" to a general medical unit during the period 1 February 1968 to 31 July 1970 only 1,432 out of 3,455 were referred by general practitioners. There was a high incidence of self-referral to hospital, and this trend was on the increase. A large percentage of self-referred patients came from their homes, and 65-77% of these arrived by ambulance ordered by themselves.

Introduction

Until recently it has been thought that patients with acute illness were referred to hospital by their family doctors. From our experience of receiving "acute medical emergencies" in several medical units at Glasgow Western Infirmary this is no longer invariably true. We undertook the present study to assess the method of referral of patients to one of the four acute general medical units in this hospital over 30 months. The survey is subdivided into five six-month periods.

Methods

The unit comprises two 18-bedded wards, and patients are admitted every fourth day. All emergency cases are seen and examined by the medical staff in the receiving area—in this case adjacent to the two wards—where it is decided whether or not these patients are to be admitted to the wards or sent home.

Before arriving in the receiving area each patient is allocated a case sheet giving details of birth, address, etc. Subsequently a folder is issued to contain the records of the patient's examination, whether or not admission to the wards is decided on. All patients seen at this unit in each of five consecutive six-month periods were grouped as follows:

NON-EMERGENCY CASES

Arranged Patients (A).—Patients seen previously at medical out-patient departments or seen on non-urgent domiciliary visits by consultant staff.

Patients transferred (T) to the unit from other medical or surgical wards.

ACUTE CASES

These have been divided into three categories:

Referred Patients (PL).—Patients seen by their family doctor, who contacted the ward by telephone, discussed the case with a member of the medical staff, and arranged the admission, sending a letter with the patient.

Referred Patients (L).—Patients seen by their family doctor, who advised them to "go to hospital" and gave them a brief letter of introduction to the hospital (usually addressed to the "Receiving Hall") but made no attempt to inform the ward of their imminent arrival.

Self-Referred Patients (SR).—Patients arriving in hospital after developing acute symptoms in the street or at work when an ambulance might be ordered by a passer-by, a shopkeeper, a householder, or the Police; also patients developing symptoms at home, and sometimes ordering an ambulance on their own initiative without seeking medical advice.

Each patient was further classified as admitted to the ward (I) or discharged home (D). In the last two six-month periods the method of transport to the hospital was noted for all self-referred patients, and many of them were asked to give the reason for self-referral.

Results

A general breakdown of all admissions to the unit over the 30-month period is shown in Table I. The total numbers of "non-acute" patients do not vary much and remain low throughout the study period. There is, however, a gradual increase in the number of "acute" patients who arrive at the receiving hall. This increase is due to the self-referred patients, as the number of patients referred by general practitioners has fallen from 273 (44.1%) in the first six-month period to 223 (31.2%) in the fifth six-month period ($\chi^2 = 23.11$; D.F. 1; $P < 0.0005$; PL > non-PL). Self-referred patients have increased from 287 (46.4%) to 435 (60.9%) ($\chi^2 = 28.3$; D.F. 1; $P < 0.0005$; R > non-R) (Table I).

A retrospective study of the six-month period before the beginning of the present study confirms the impression (see Chart) of a real increase in self-referral of patients. A slight peak during period 4 was due to the large number of "acute" patients seen during the influenza epidemic (December 1969-January 1970).

The disposal of "acute" patients who arrived at the receiving hall is shown in Table II. Of the patients referred by family doctors between 83 and 95% were admitted to the wards. The patient who was discharged home had usually been referred only for a second opinion and not for admission. Of the self-referred patients (SR) between 33 and 39% were admitted to the wards, thus leaving a large number who were allowed home.

Contrary to popular belief a large percentage (77.7-81.1) of the self-referred patients actually developed their symptoms

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while in their homes (Table III). Of these, 65.1-75.5% came to hospital by ambulances which they ordered of their own accord (Table IV). Often these patients had trivial complaints, and two-thirds of those who came by ambulance were discharged home. Patients who developed acute illness

TABLE I—General Breakdown of All Patients Seen at the Unit

	No. of Patients in Six-Month Periods					
	1	2	3	4	5	
Acute	PL... ..	273 (44.1%)	228 (35.9%)	222 (32.7%)	241 (29.9%)	223 (31.2%)
	SR... ..	287 (46.4%)	359 (56.5%)	402 (59.1%)	481 (59.6%)	435 (60.9%)
	L... ..	59 (9.5%)	48 (7.6%)	56 (8.2%)	85 (10.5%)	56 (7.9%)
Total	619	635	680	807	714	
Non-acute	A... ..	65	92	68	59	56
	T... ..	52	45	40	56	41
Total	117	137	108	115	97	

PL = Phone call + letter from G.P. L = Letter from G.P. only. SR = Self-referral. A = Arranged admissions. T = Transferred patients.

TABLE II—Disposal of "Acute" Patients

	% of Patients Admitted (I) or Discharged (D)										
	I		D		I		D		I		D
PL	83	17	86	14	88	12	87	13	95	5	5
SR	35	65	33	67	39	61	37	63	33	67	67
L	24	76	56	44	61	39	62	38	52	48	48
Six months	1		2		3		4		5		

TABLE III—Place at which Self-referred Patients Developed Symptoms

Six-month Period	No. who Developed Symptoms in Street or at Work	No. who Developed Symptoms at Home	Total
4	107 (22.25%)	374 (77.75%)	481
5	82 (18.85%)	353 (81.15%)	435

TABLE IV—Number of Self-referred Patients who Arrived from their Homes by Ambulances

Six-month Period	No. of Self-referred Patients who came from Home	No. of Patients who Ordered Ambulances	No. of Ambulance Patients who were Admitted
4	374	290 (77.54%)	99 (34.1%)
5	353	230 (65.15%)	69 (30.0%)

in the street or at work usually arrived by ambulance or were brought in by the Police; during periods 4 and 5 a total of 189 patients arrived in this way, and 22.1% of these were admitted to the wards.

During the last two six-month periods 402 of the 727 patients (or their relatives) who came from their homes were asked the reason for their self-referral to hospital. These patients were personally interviewed on 48 randomly allocated emergency days. The reasons given were: (a) that the family doctor was not available on telephoning his surgery or home (7.9%), (b) that on telephoning the family doctor the patient was told to go direct to the hospital (3.2%), (c) belief that the appointment system would mean delay in seeing the family doctor (15.1%), (d) belief that their symptoms were severe and that an attempt to contact the family doctor would result in delaying treatment (18.2%), (e) belief that the family doctor (or deputy) was not available after surgery hours (30.3%), and (f) a variety of reasons such as wanting a "second opinion," "having no family doctor," expressing lack of confidence in the family doctor or offering no explanation (25.1%).

Discussion

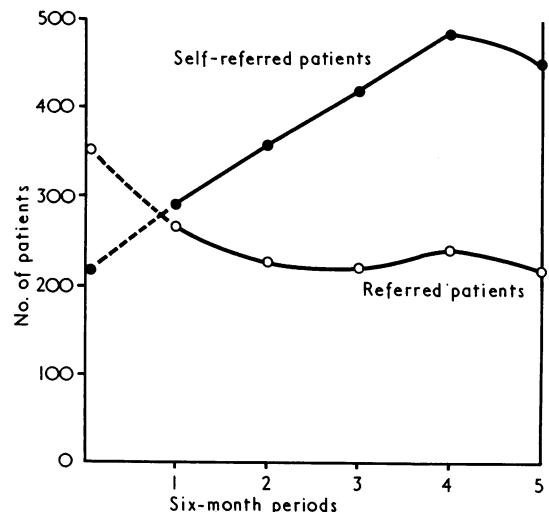
A survey of medical emergency admissions over a fairly long period endorses the view that a large percentage of patients arrive at hospital without previously seeing their family

doctors. Clearly, this percentage is constantly increasing; up to 60% of these patients are sent home after examination. Often they have trivial complaints and do not require medical attention in the hospital. The brunt of the work load falls on the junior staff. In the first instance these patients are usually received at the hospital by a preregistration doctor and later seen by a more senior doctor. Interrogation, examination, and documentation of this large number of self-referred patients on emergency days is time-consuming and often diverts the medical staff's attention from the really ill patients, not to mention wasting the time of administrative and medical records staff. All the records are collected and filed in the records cabinets, and the space occupied by these files must be considerable in an already overcrowded records office.

Perhaps the most surprising finding was the liberal use of ambulance services by the self-referred patients (Table IV). Up to 77% of the patients who came from home arrived by ambulance ordered by themselves, and most of them were discharged home. Not infrequently these patients had arrived in their bedclothes and without shoes, and hospital staff had no choice but to send them back by ambulance. This increased the work of the ambulance services and might cause great delay in transporting other patients; in any case this form of wastage of ambulance service is uneconomic.

Up to 39% of self-referred patients were ill enough to need admission and often presented problems. Lack of knowledge of patients' past illnesses and past and present medication was especially felt in the case of those who were unconscious and those who had poisoned themselves with "unknown" tablets.

The other type of referred patients (L) also arrived completely unannounced, and in many cases a considerable time (up to 36 hours) had elapsed between the visit to the family doctor and arrival at hospital. About half of these required admission to wards. Of those who were discharged, many were referred to medical outpatient departments. This form of referral to the acute receiving units is rather unsatis-



Number of referred patients (PL) and self-referred patients (SR) during the 30-month period. Interrupted lines represent six months' retrospective study.

factory, and probably direct referral of such patients to medical outpatient departments would save much time and energy.

Self-referral is an increasing problem for the reasons stated. The explanations given for self-referral are very varied. Many patients believe that family doctors are not available after

surgery hours or that self-referral to hospital would hasten treatment; in several instances the patient was unable to contact the family doctor (7.9%) or on doing so was directed to hospital (3.2%). It is unlikely that any emergency service can be organized to be ideal to all concerned, but there does seem to be a disturbing trend in the receiving of "acute" cases. This may be peculiar to the Glasgow Western Area, though the general impression is that it may be a widespread urban problem.

The most satisfactory method of emergency admission is where the patient has been referred by his own family doctor and full discussion on a doctor-to-doctor basis has taken place

between the general practitioner and the hospital junior physician. This kind of referral, however, is slowly decreasing (see Chart). This transfer of decision regarding referral of patients to hospital out of the family doctor's hands into the patient's is to be regretted when one considers what should be the role of the family doctor and the function of the hospital in the community.

I wish to thank Dr. J. D. Olav Kerr, consultant physician in charge of wards, for his encouragement and helpful advice in the preparation of this paper. I am grateful to Miss M. Galbraith, the unit secretary, for her help with the case records.

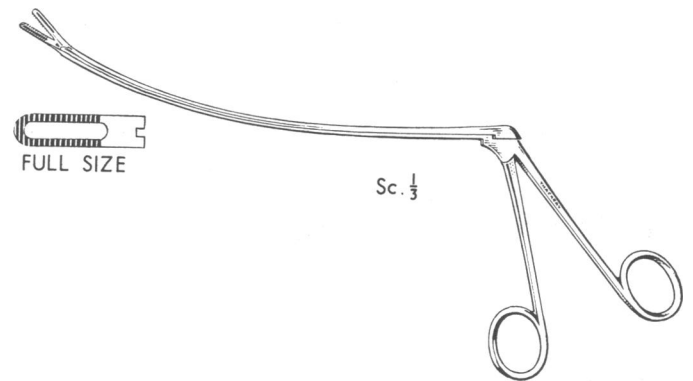
New Appliances

New Endarterectomy Forceps

Mr. PETER MARTIN, consultant surgeon, Chelmsford Hospital, Essex, writes: During the operation of endarterectomy the sequestrum is loosened by some form of stripper and a suitable instrument for its extraction is necessary. Desjardins's forceps have been used by many but the jaws on this instrument are not strong enough for this purpose, and if the sequestrum is adherent over a small segment it cannot be removed.

Because of this Messrs. Thackray were asked to make an instrument on the same lines as Desjardins's forceps but with a different hinge mechanism and also with a suitable curve in the shaft. This they have done (see Fig.), and for the past two years we have been using this instrument and find it of great value for the purpose for which it was designed. The grip on the sequestrum is strong and, furthermore, it will readily avulse an attached portion of

the diseased intima at the proximal end of the artery being treated. The use of this instrument has facilitated the whole operation considerably.



Arterial Sling Tourniquet: New Method of Clamping Vessels

Mr. D. C. DUNN, lately of St. Albans City Hospital, now at the Department of Surgery, Addenbrooke's Hospital, Cambridge CB2 2AH, writes: The vascular clamps at present in general use are very satisfactory for normal vessels but are

traumatic to arteriosclerotic arteries. As most arterial surgery is carried out on such diseased vessels there is a need for a more gentle method of temporary vascular occlusion. Clamps have been devised to overcome these difficulties, but usually they are difficult to manufacture and are expensive. This note describes a device which is very simple, gentle to arteriosclerotic arteries, easy to use, and inexpensive to manufacture.

During direct arterial surgery it is standard practice to pass

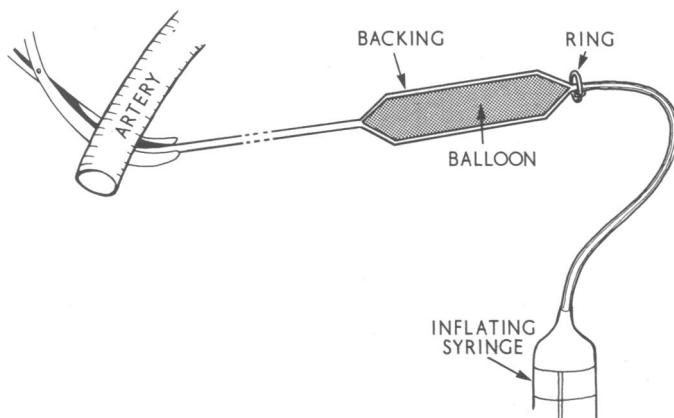


FIG. 1.—Construction of the tourniquet and the method of applying it round an artery.

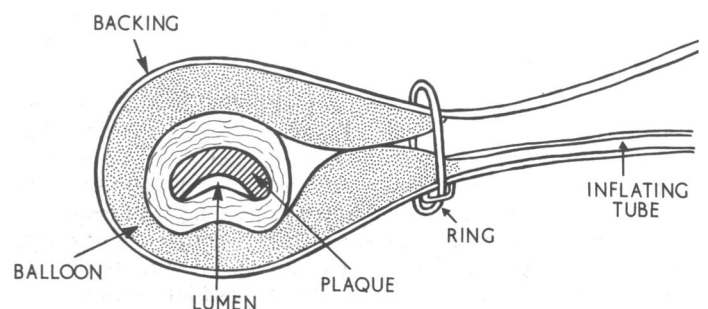


FIG. 2.—Tourniquet applied round an arteriosclerotic artery. Inflation pushes the soft part of the arterial wall into the hard plaque, occluding the lumen.