Analysis of care of HIV positive patients: hospital and general practice components

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Abstract

Fifty-seven HIV positive adults (mostly injecting drug users) attending two inner city Dublin general practices were followed for one year to identify the general practice and hospital components of their care. Many patients had advanced disease; during the year 10/57 (17.5%) died. The group made a median of seven visits to general practice (range 0-35) and two visits to hospital HIV clinics (range 0-21). A quarter of the group (14/57) was seen only in general practice and did not attend hospital; only two patients did not attend either the HIV Clinic or the GP during the year.
Hospital admission was needed for 15/57 (26.3%) patients on a total of 31 occasions with an average length of stay of 10 day per admission; 80% of these admissions were generated by 10 patients with AIDS. The indication for almost all admissions was serious physical illness or diagnostic or therapeutic procedure.
Patients with symptomatic or advanced HIV disease required a higher level of care than those with asymptomatic disease. It essential that the agencies involved in meeting this level of demand he adequately resourced and that they liaise closely.

Introduction

Little information is available on the hospital/general practice breakdown of the burden of medical care for HIV positive patients[1,2,3,4]. Clarke has described the barriers to GP involvement in the care of HIV positive patients, particularly intravenous drug users and concluded that difficulties about the role of primary and secondary care services relate to the 'ownership' of the patient[5]. Although the use of primary care services by intravenous drug users in Dublin has been described previously, the relative use of primary and secondary care services has not been described.[6]

This study aimed to establish the distribution of patient care by examining the continuum of care from general practice through HIV outpatient clinic to in-patient care for a group of patients identified through two Dublin inner-city general practices. At the time, St. James' Hospital provided the only specialist care for HIV disease in the city and all patients were followed up there. Since the development of symptomatic disease will obviously dictate much of the requirement for medical care, the progress of staging of the group was also a subject of this study.

The study practices have long experience of HIV and drug related problems because of their location in deprived parts of Dublin's inner-city. This has resulted in large numbers of intravenous drug users and HIV positive patients attending over the years[7,8]. The area's drugs problems are similar to those described in Edinburgh[9,10]. Both practices have strict policies of non-prescription of opiates to drug users; referrals to local drug treatment units are made for methadone maintenance or detoxification programmes.

Methods

All adult HIV positive patients attending the two general practices were identified. The group was followed from 1st Jan. 1992 for a one year period; information on disease progression and use of services was collected from hospital and general practice records during the study period. Data collection was primarily carried out by a medically qualified researcher with random cross checks on reliability and consistency of data by other doctors involved in the study.

The disease staging used is that of the Centre for Disease Control, Atlanta, pre 1993. Analysis was carried out using EpiInfo 5.01.

Results

The fifty-seven adults attending the two general practices included 42 men and 15 women and had a median age of 30 years (range 21-47 years): 40 had been intravenous drug users (IVDUs), 15 were homosexual, one was IVDU/homosexual and one had an unknown route of infection. Therefore, almost three-quarters of the patients were male and 71% gave IVDU as the prime risk forroute of infection. During the year, 20 patients are known to have injected drugs; two others possibly injected drugs.

Table 1 shows the staging of the group at the time of diagnosis, at the beginning of the study (Jan 92) and at the end of the study (Jan 93). Ten patients (17.5%) died during the year; eight had a diagnosis of AIDS at the time of death. Two other patients had had an AIDS defining illness. Of the 10 AIDS diagnoses, two had been made in 1992, four in 1991 and four prior to 1991. Pneumuocystis carinii pneumonia (PCP) was the single most common AIDS defining illness.

Table 1. Progress of staging during one year.

	II/III	IV	RIP	Unknown	Total
Stage at Diagnosis	51	5	0	1	57
Stage Jan 92	43	11	0	3	57
Stage Jan 93	38	7	10	2	57

Table 2 shows the differences in use of services between those in stages II/III and those in stage IV; the disease stage was unknown for three patients at the beginning of the study, so data are presented here for 54 patients. Patients in stage IV had higher rates for general practice contacts, OPD visits and hospital admissions. A significant proportion of the additional work in general practice was due to house calls to patients in stage IV, often during the course of terminal care.

The group made a median of seven general practice contact (surgery visits or house calls) during the year (range 0-35): Table 3 shows that 21 patients (36.8%) had 11 or more GP contacts.

Table 2. Contacts with GP & hospital by stage of disease (staging information not available on three patients) during one year.

	Stage at start of study	
	II/III (43 patients) Mean (median)	IV (11 patients) Mean (median)
Surgery visits	8.3 (6)	7.0 (7)
House calls	0.4 (0)	5.7 (1)
Total GP contacts	8.7 (6)	12.7 (9)
OPD attendances	3.4 (2)	8.3 (4)
Admissions	0.2 (0)	1.9 (2)

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Seven patients (12.3%) did not attend the GP during the year; six were in Stage II and one was stage unknown. A total of 127 additional GP contacts were made on behalf of members of the group where the patient was not seen (mean 2.2 contacts per patient). This was almost always to have a hospital prescription transcribed onto a General Medical Services prescription.

Table 3. HIV clinic visits, hospital admission and general practice visits during one year.

No. of Visits	0	1-5	6-10	11-20	>20	Total
HIV Clinic Visits	16	28	6	6	1	57
Hospital admissions	42	15	0	0	0	57
GP Contacts	7	16	13	13	8	57

Members of the group made a median of two visits to the HIV Clinic during the year (range 0-21). While the majority of patients made between one and five visits to the Clinic, seven (12.3%) made 11 or more visits. Sixteen patients (28%) did not attend the Clinic during the year; 15 of this group were in stage II or III and one was stage unknown.

Figure 1. GP and Hospital Visits

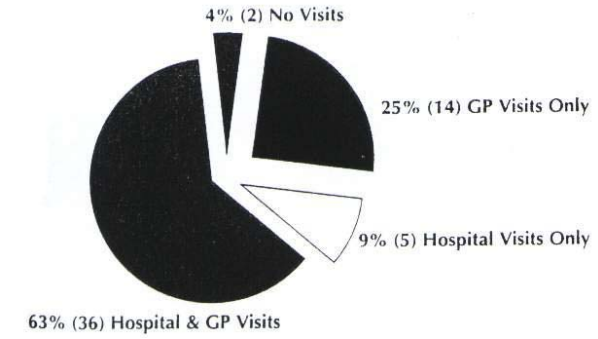

Figure 1 shows that 14 patients (24.6%) attended the GP only, while the majority attended both hospital and GP. Only two patients (3.5%) did not attend either hospital or GP during the year. Fifteen patients (26.3%) were admitted to hospital on 31 occasions with a total bed stay of 325 days (mean stay 10.5 days). Of the 31 admissions, 25 were generated by the ten patients with a diagnosis of AIDS.

The reasons for admission are listed in Table 4; a wide variety of problems was responsible including investigation of symptoms, therapeutic procedures, nursing care and interventions such as the insertion of percutaneous gastrostomy tubes (PEG) or Hickman catheters. During the year, 13 members of the group received zidovudine and two members of the group received DDI.

Discussion

This study examines the distribution of the workload involved in the care of patients between hospital and GP, identifies a significant proportion who depend on their GP alone for care of HIV problems and shows that those with advanced or terminal illness make great demands on available services and that this may not be the case for those with earlier stages of the disease.

Table 4. Reasons for admission to hospital.

	Number of admissions
Non-specific symptoms, not AIDS	3
Respiratory symptoms, not AIDS	4
Neurological symptoms, not AIDS	4
Diagnostic procedure	2
Treatment procedure	4
Insertion of central cannula	1
PEG insertion	1
Haematological abnormalities	2
Pneumocystis carinii pneumonia	1
Cytomegalovirus infection	2
Resistant Candida	2
Palliative care	2
Cryptosporidium	1
Acute urinary retention	1
Other	1
Total	31

Most patients attended the GP, and usually on a frequent basis; about a quarter of the group were admitted to hospital during the year but a further quarter had no hospital contacts and were only seen in general practice. Hospital admissions were primarily among those with advanced disease - 80% of admissions were for the ten patients with AIDS, but only two admissions were specifically for palliative care.

Disease monitoring, PCP prophylaxis, risk reduction and counselling are among the key services required by patients, and those who choose to exclusively attend general practice must have access to such care. With a quarter of the group - mostly asymptomatic patients - choosing to attend general practice only, a need clearly exists to ensure that GPs arc providing these services. This study included only the patients of two practices and its results must be interpreted with caution. However, the results suggest that liaison with hospital services, education programmes, GP facilitators in HIV disease and structured protocols for care arc among the strategies required for GPs to meet these demands[5,11,12]. By April 1994, Ireland was known to have 1465 HIV positive individuals, half of whom have been infected through injecting drug use[13] Many attend GPs who must he resourced and supported in providing care[14].

Demand for community based care by symptomatic patients was high, with a median of nine face-to-face contacts with GPs by patients in Stage IV during the year. Many of these patients were seriously or terminally ill but their care differs in many important respects from that of the more conventional terminally ill patient in general practice. Patients with advanced HIV disease may experience periods of relative well-being between episodes of severely disabling illness rather than the steady decline in health associated with other terminal illness. No account has been taken in this study of contacts with other primary health care team members; in the case of terminally ill patients, the involvement of Public Health Nurses was often very high, sometimes with visits several times per day. In some cases, members of the Hospice Home Care Team were also involved.

This study provides much information on the volume but not the nature of the work involved in the care of this patient group. Although data is available on the problems which prompted admission, no information is available on the problems dealt with in the GP's surgery or out-patient clinics. These issues of clinical content must be addressed for education and quality of care purposes.

Finally and perhaps most importantly, this study illustrates the

need for close and continuing contact between all involved in the care of these patients. Frequent contacts with multiple carers creates the potential for confusion, uncertainty about responsibilities and missed opportunities for diagnosis, monitoring and prevention. Clearly this must be avoided at all costs.

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