

Problems of drug abuse, HIV and AIDS: the burden of care in one general practice

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SUMMARY. Responsibility for many of the problems of intravenous drug abuse and human immunodeficiency virus (HIV) infection lies with community care agencies, such as general practitioners, community psychiatric and district nurses and drug agencies. It is in general practice that this burden is most clearly observed, given that general practitioners are in charge of the day-to-day care of patients. In an attempt to quantify this workload in an inner city practice with 11 200 patients, data were gathered from several sources relating to drug use and HIV infection. The study identified 432 patients who had consulted with problems of drug abuse and/or HIV infection over the period 1981–90. Among this group of patients 161 (37%) were HIV antibody positive. Among 191 drug abusers who were still registered with the practice in 1990 dihydrocodeine was the most commonly prescribed substitute treatment (130 patients) and only nine patients were prescribed methadone. Forty seven per cent of drug users continued to inject drugs occasionally. However, analysis of urine samples revealed that there was a shift away from injecting mainly heroin to multiple drug use, including benzodiazepines, usually originating from prescribed sources. Drug abusers who were HIV positive consulted their general practitioner significantly more often over one year than those who were not (mean 24.9 versus 15.8 consultations, $P < 0.01$). However, there was no significant difference between these two groups in terms of days spent in hospital. A total of 61 patients were referred to a community psychiatric nurse over an eight month period. At the end of the period the nurse had maintained professional contact with 59% of these patients.

In order to tackle this workload in the community, resources should be channelled towards primary care, especially in areas with high levels of drug misuse and HIV seroprevalence. The practical difficulties associated with caring for intravenous drug users can be surmounted through increased knowledge of diverse patterns of drug use, and target-specific maintenance prescribing.

Keywords: drug abuse; HIV; AIDS; GP responsibility; workload.

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Introduction

COMMUNITY facilities have been the focus of rapid development of services for drug users in the past 10 years, made more urgent by the development of human immunodeficiency virus (HIV) infection in this group. Various official reports and projects have drawn attention to the urgent need for a wide variety of health care facilities for what seems to be a rapidly expanding group of young people choosing to neglect or abuse themselves through the use of illegally imported drugs or inappropriately obtained prescribed drugs.¹⁻⁴ However, although these reports tell us about new cases of emerging drug abuse in different regions they tell us little about the ongoing needs of patients or their families.

It is possible that some of the difficulties presented by manipulative drug users and the demand created by patients who become dependent on primary care services for their drugs are underestimated by secondary care facilities. Individual general practitioners or practices may become over burdened with a large caseload owing to their geographical position in housing estates where large numbers of patients seeking therapy are present. It has been suggested that as the medical system gains more experience in dealing with patients with HIV infection and the acquired immunodeficiency syndrome infection (AIDS) the burden of care will shift away from hospital based services.⁵ Further, policy seems to be moving in the direction of increasingly liberal prescribing for drug users backed up by support from secondary care agencies.⁶ This increasing involvement of general practice in the problems of drug users not in close contact with secondary care services may be of importance in controlling the HIV epidemic as drug injecting and needle sharing remains common among this group who are thus at risk of infection. Therefore, there is an urgent need for information about the problems associated with drug dependency and HIV/AIDS in general practice.

Most studies to date have sought information about the contact general practitioners have with patients infected with HIV in terms of doctors' attitudes, information and facilities for coping with such patients.⁷⁻¹⁴ This study attempts to outline the range of clinical services provided by one group practice in Edinburgh for large numbers of HIV infected individuals, most of whom are intravenous drug users. The general practice is situated in an inner city housing estate suffering social and economic deprivation. It has approximately 11 200 registered patients and seven partners. A number of HIV infected individuals, with no history of intravenous drug use, are cared for in the practice. However, the present study is primarily concerned with the problems of HIV and AIDS as they relate to intravenous drug users. Quantitative data relating to those other infected individuals are provided in order to indicate the total workload experienced as a result of HIV and AIDS. Our attempts to elicit curative treatments or to relate outcome to therapy have been described in other studies.¹⁵ A community psychiatric nurse is employed in the study practice and provides support and counselling for drug users.

Method

In January 1991 all patients who had consulted the practice over the period 1981–90 with problems of intravenous drug abuse or HIV infection were identified from records held by the Edin-

burgh drug addiction study. The patients' current general practitioner was determined by checking health board records. In addition, further information on general practice registration and the whereabouts of drug abusers was obtained from the Central Registry office. Intravenous drug users are routinely registered with the Central Registry by the research team. The office informs the study if an individual moves away or dies. In addition, general practitioners notify the Home Office when a drug addict abusing drugs in the controlled drug category registers with the practice. Such individuals subsequently join the Home Office addicts index. For this study the addicts index was used to provide quantitative information regarding the study group. For all patients identified, patterns of drug abuse, current injecting behaviour and sexual preferences were determined from medical case notes and during face-to-face interviews with research staff.

All HIV test results for these patients were available from the records held by the Edinburgh drug addiction study. HIV-antibody testing had been carried out by the Regional Virus Laboratory at the City Hospital, Edinburgh and serum samples had been subjected to enzyme-linked immunosorbent assay, seropositivity being confirmed by western blot analysis. For the purpose of this study the most recent HIV test result was considered.

In order to describe the particular workload experienced by the practice those patients registered with the practice at the time of study were considered as a separate group. The drugs that were being prescribed in 1990 for the patients known to have used illegal substances by intravenous injection were determined by examining the medical case records. Drugs which seemed to be prescribed either as a substitute for those previously abused, or for HIV and AIDS prophylaxis were included (multiple antibiotics and antifungal agents were excluded). On occasion drug users are requested to provide a urine sample for analysis, in order to determine which drugs have been used recently. Results of urine analyses carried out in the period 1981–90 and recorded in the medical notes were examined to determine which drugs were frequently detected (substance detected in 75% of samples or more), occasionally detected (25–74% of samples) and rarely detected (less than 25% of samples).

For the intravenous drug users the number of consultations with a general practitioner for the 12 month period ending December 1990 was recorded and information on hospital attendances and reason for referral was obtained from the general practice records.

Details of the drug users interviewed by the community psychiatric nurse over the eight month period from September 1990 were obtained from clinical records kept by the nurse.

Data were analysed using *t*-tests for independent samples.

Results

A total of 432 patients (298 males, 134 females) consulting with problems relating to intravenous drug abuse or HIV infection were entered into the study: 404 intravenous drug users (279 males, 125 females), 22 'at risk' sexual partners of HIV infected intravenous drug users, four HIV infected homosexuals and two children infected with HIV through vertical transmission. Of the 432 patients, 161 were known to be HIV antibody positive (37.3%), including 150 of the 404 drug users and five female sexual partners. The age range of the 404 drug users was 18–53 years (mean 29 years); 115 (27.5%) were aged 26–30 years.

General practice registration

Of the total 404 known drug users 191 (47.3%) were still registered with the study practice in 1990. Thirty three had died

by the end of 1990 (17 with HIV infection). Among the remaining 180 patients who had changed doctor for various reasons, 60 were known to be HIV antibody positive. Most of the 180 patients who had changed doctor (107, 59.4%) had remained within the Lothian health board area. Twelve patients were living elsewhere in Scotland, six in London, 11 in other parts of the UK, two in the United States of America, one in Africa and two had spent the whole of 1990 in prison. The remaining 39 patients had been lost to follow up.

Drug taking

One hundred and twenty two of the 371 known intravenous drug users who were still alive (32.9%) were listed in the Home Office index of addicts. Of the 191 patients registered with the practice in 1990 and who were known to have used drugs by injection, the majority were receiving prescribed drugs: 130 patients were prescribed dihydrocodeine (mean weekly dose 124 tablets (30 mg each), range 28–280 tablets); 36 patients diazepam (mean weekly dose 44 tablets (10 mg each), range 14–96 tablets); 65 patients triazolam (mean weekly dose 25 tablets (250 µg each), range 14–60 tablets); and 47 patients temazepam (mean weekly dose 32 tablets (20 mg each), range 10–98 tablets). In addition, nine patients were receiving methadone mixture 1 mg/ml and 19 pentamidine. Twenty seven intravenous drug users were being prescribed zidovudine.

Analysis of 600 samples (at least one from each drug user) revealed the wide range of substances used by the 404 known drug users (they are given in alphabetical order).

Frequently detected: amphetamines; buprenorphine; cannabis; cyclizine; diazepam; dihydrocodeine; methadone; temazepam; triazolam.

Occasionally detected: amitriptyline; dextropropoxyphene; dipipanone; heroin; morphine; phentermine.

Rarely detected: 3,4-methylenedioxymetamphetamine (ecstasy); anabolic steroids; cocaine; codeine; dextromethorphan doxycycline; ephedrine; nortriptyline; phenobarbitone; phenothiazines; phenylpropanolamine; phenytoin; prilocaine; quinine.

Ninety of the 191 patients were known to have injected drugs during 1990, including three who had been abstinent from injecting drugs at follow up in 1988. Forty patients (20.9%) had been in prison during part of 1990.

Consultations with a general practitioner and hospital attendances

For the group of 191 patients still registered with the practice and known to be intravenous drug users, 3717 consultations took place with a general practitioner during 1990 (mean 19.5, range 0–58). For the 73 patients in this group who were HIV positive the mean number of consultations was 24.9 (range 0–58), while for the remaining 118 patients the mean was 15.8 (range 0–53) consultations. An independent sample *t*-test revealed this to be a significant difference ($P < 0.01$).

Of the group of 191 drug users, 26 patients were admitted to hospital on 48 occasions during 1990 for a total of 425 days (mean 16.3, range 2–101). For the 21 patients in this group who were HIV positive the mean number of days in hospital was 18.7 (range 2–101) and for the remaining five patients the mean was 6.4 (range 2–19). This difference is not statistically significant.

Forty drug using patients had been referred to hospital on 69 separate occasions in 1990; a total of 76 reasons for referral were recorded (Table 1). The largest single category was violence and trauma, followed by AIDS related illness and HIV related chest problems.

Consultations with the community psychiatric nurse

Over the eight month period from September 1990 a total of 61 drug using patients were referred to the community psychiatric nurse, a mean of 7.6 referrals per month. Of the 61 patients eight (13.1%) were HIV positive. The nurse referred nine patients (14.8%) to the local community drug problems services group for further care. At the end of the eight month period the nurse had maintained professional contact with 36 patients (59.0%).

Table 1. Reasons for the 69 hospital referrals in the group of 40 patients.

	% of reasons for referral (n = 76)
Violence/trauma	27.6
AIDS related illness including candidiasis, diarrhoea	21.1
HIV related chest problems including pneumonia caused by <i>Pneumocystis carinii</i> and tuberculosis	21.1
Non-HIV related infections	6.6
Drug related or detoxification	5.3
Surgery including skin grafting	3.9
Convulsions	3.9
Parasuicide	3.9
Depression	2.6
Dental problems	1.3
Alcohol problems	1.3
Tumour	1.3

n = total number of reasons for referral.

Discussion

In attempting to quantify the nature of the demands made on primary care services by drug users and/or patients with HIV infection, the study presented here has outlined the general areas in which services are currently being used. It is, however, important to realize the nature of the consultation and that the involvement does not stop with the drug user or infected individual but in primary care involves the whole family from grandparents to children. The long duration of drug problems, for example, affecting any one individual is nowhere felt more constantly than in general practice where responsibility for an individual patient is continuous, prolonged, and at times overwhelming.

The study practice is based in an area of social and economic deprivation. A drug using community is highly dynamic, in that members often move house many times per year, mainly for social reasons. As a result of moving outwith catchment areas or because of being 'struck off' by general practitioners drug users may also change doctors many times per year. The high number of drug users in this study who changed doctors reflects the dynamic status of this group.

During the year ending March 1991, the consultation rate among the practice population as a whole (11 200 patients) was 4.4 consultations per patient. The number of consultations conducted with drug abusing patients was 19.5 consultations per patient during 1990. Comparing these figures with a national average annual consultation rate of 4.7 per patient in 1989¹⁶ indicates that deprivation is not necessarily associated with increased medical consultation. However, problems of drug abuse evidently represent a major responsibility and often an immense burden for individual doctors and staff. Results from this study show that drug abusing patients who are HIV positive consult their general practitioner significantly more often than patients who are HIV negative. However, HIV positive patients did not

spend significantly more days in hospital, suggesting that the burden of care lies with primary care rather than hospital services.

A community psychiatric nurse is attached to the practice and works directly with drug users. The number of drug users who miss appointments with general practitioners is high. The community psychiatric nurse is able to make contact with drug users at drug agencies, and other medical centres and therefore ensures a higher rate of follow up. Furthermore, the nurse, acting as a liaison between the practice and community agencies, is able to ensure consistent care and support for patients while easing the burden and responsibility of the general practitioners themselves. Recently, the community psychiatric nurse has begun group and family therapy sessions for patients with drug dependency problems and this has proved rewarding. In a national survey of specialization by client group among community psychiatric nurses,¹⁷ only 4.7% were found to be actively involved with patients with HIV infection or AIDS. Work with patients with HIV infection or AIDS could benefit from greater involvement of community psychiatric nurses.

The drugs that were found to be prescribed in this study are somewhat different from those described in other assessments of management for drug users^{18,19} since there is a greater reliance on the short acting opiate dihydrocodeine as a substitute rather than the traditional use of methadone.^{20,21} The main benefits of dihydrocodeine are its rapid onset of action, its short half-life and its consequent attraction for many individuals not normally drawn into methadone treatment. It does not seem to have long term adverse effects and withdrawal, during detoxification, is not any more severe than from methadone. In tablet form it may be most appropriate for a recovering opiate addict, in terms of portability, likeness of form to drugs being most often abused, for example buprenorphine, and because it is less conspicuous than methadone elixir.

The results of urine toxicology display the variety of substances being used by the study population. The increasing use of benzodiazepines indicates a new trend in drug taking, not unique to Edinburgh, but of considerable concern. This trend away from illegal heroin to multiple drug use, usually originating from prescribed sources, is an important feature of a developing drug sub-culture. The sleeping pill triazolam was withdrawn from the market in October 1991 owing to concerns about its safety. Triazolam was one of the benzodiazepines most frequently abused by the study group, and we have since found that its sudden withdrawal had resounding effects, not only in terms of anxiety and frustration for those dependent on the drug, but also in terms of extra workload for the doctors and staff in the practice.

A comparatively small percentage of drug users in the practice were listed in the Home Office index of addicts (33%), illustrating the number of individuals abusing drugs which are not in the controlled drugs category. In Lothian region efforts are currently being made to establish drug databases which could identify and characterize these individuals. It is important to keep open discussion about the place, relevance and controls available for drug prescribing.

The HIV seroprevalence in this group of patients consulting with problems relating to intravenous drug abuse or HIV infection was 37%, compared with 51% in 1985²² and 64% in 1988.¹⁵ In the practice only one new seroconversion attributable to drug injecting has occurred since 1986, although an increasing number have been attributed to heterosexual transmission.^{23,24} This suggests that most HIV transmission occurred some years ago in a pattern similar to that in other European centres.^{25,26} The current decline in recorded HIV seroprevalence among intravenous drug users may be accounted for in a number

of ways. Risk taking behaviour in this group has been consistently decreasing since 1986 and this in itself may be explained by greater availability of clean injecting equipment and awareness of the threat of HIV infection.²⁷

Among the most pressing problems facing primary care at the moment are the practical difficulties associated with illegal or inappropriate drug use. These problems draw attention to deficiencies in the system designed for managing drug misuse. The second problem area concerns the management of patients with AIDS and advancing HIV infection in the community. Care for these patients is now operating on a grand scale — government working parties and large treatment and research units in hospitals have been established. It is important that the role of primary care in the management of HIV infection and AIDS continues to be recognized and that support is apportioned among deserving parties. Finally, the recognition of changing patterns of drug misuse problems²⁸ and the transmission and manifestation of HIV infection²⁹⁻³¹ should be used to alter medical strategies in order to prevent further spread of the HIV virus, and to educate and test appropriate groups of individuals.

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