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October 2000 Volume 93 No 7

Original Papers

**Drug Users Attending General Practice in Eastern Regional Health Authority (ERHA) Area**

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### Abstract

Dublin has an estimated 13460 opiate drug users. The role of general practice in providing care for this group has increased over the last four years. A Central Methadone Treatment List (CMTL) registers all clients currently on treatment. To obtain a social, demographic and drug using profile of opiate users attending general practitioners (GPs) for methadone maintenance. A cross sectional survey of opiate users attending general practice for methadone maintenance in the Dublin area in early 1999. Data was collected on 571 clients (62% of total number attending general practice), of whom 97% had used heroin in the past and 12% had never injected. Although clients had been receiving methadone maintenance in general practice for a mean of 14 months, 16% were still using heroin, of whom 31% were still injecting. The mean age of first drug use was 15.5 years and of first injecting was 19.4 years. Younger clients are starting both to use drugs and inject drugs at an earlier age. Record keeping was good, with most items of information present in over 70% of the charts surveyed. A total of 17% of clients recorded on the CMTL could not be traced to the GP recorded as providing care. Despite treatment with methadone maintenance, there is a high level of continued risk activity in this group. Furthermore, a trend towards earlier initiation to drug use is apparent. The CMTL registration process requires further exploration.

### Introduction

Dublin's problem with drug misuse began in the late 1970s affecting mainly young people living in deprived inner city areas<sup>1-3</sup>. This problem and its complications have caused significant morbidity<sup>4</sup>, reflected by increased workload for general practitioners<sup>5</sup> and hospitals<sup>6,7</sup>.

It has been previously estimated that Dublin, Ireland has between 3000 and 15000 drug users<sup>3</sup>. A recent study of the prevalence of opiate drug use in Dublin in 1996 estimates 13,460 or 21/1000 in the Dublin area were using opiates.<sup>8</sup>

Treatment facilities for drug addiction in Dublin have been provided since 1969. In the 1980s, a significant rise in drug misuse occurred. During this time, the Drug Treatment Centre (DTC) was opened. More recently, methadone maintenance programmes have been introduced. Currently, methadone maintenance is provided by the DTC, addiction centres and small community based projects (satellite clinics).

The role of general practice in providing methadone maintenance is getting increasing recognition<sup>9-11</sup>. In Ireland, the possible role for GPs in providing methadone treatment was first recognised by the National AIDS Strategy Committee in 1992<sup>12</sup>. A formal protocol for methadone prescribing by GPs was published in 1993<sup>13</sup>. The role of general practice was further recognised in 1996 with the appointment by the Eastern Health Board of three GP co-ordinators. In March 1996, the pilot of the protocol for treating stable methadone maintained patients in general practice began. In 1997, the Irish College of General Practitioners issued further guidelines on the management of drug misuse<sup>14</sup>. Together with the Eastern Health Board, it encouraged GPs to become involved in this work<sup>15</sup>. An updated protocol for the prescribing of methadone in general practice was published in 1997<sup>16</sup> and this was given statutory authority in 1998 through amended legislation<sup>17</sup>.

At the time of this study, 92 GPs were prescribing methadone in Ireland. Of these, 82 (89%) were in the Eastern Health Board area<sup>18</sup>.

In Ireland, little information exists as to the profile of drug users attending general practice for treatment. Therefore, the aims of this study were to obtain a social, demographic and drug using profile of drug users attending general practice for methadone maintenance and to describe the current process of care. The study also explored the impact of bloodborne viruses on this population (reported separately).

## **Methods**

### **Setting**

The area under study is the Eastern Regional Health Authority (ERHA), formerly known as the Eastern Health Board. It is the

largest health region in the Irish Republic<sup>9</sup>. The population living within the ERHA region is 1.3 million<sup>20</sup> – 36% of the national population. Geographically, it includes the counties Dublin, Kildare and Wicklow.

### **Subjects**

The Eastern Regional Health Authority holds a central register of drug users in treatment. Each name is accompanied by the name of the GP and pharmacist that the client attends. The identity of client, GP and pharmacist is confidential. To protect this confidentiality, only one member of the research team (JB) was allowed access to this register. All GPs prescribing methadone in the ERHA were invited to participate in the study. A follow up telephone call was made to each GP who had indicated an interest in participating, to outline in more detail the nature of the study. An appointment was made, at the GP's convenience, for the researcher (WC) to visit the practice and to review the records of drug users being prescribed methadone.

### **Data collection**

A data collection proforma was developed. This included questions to yield information on:

- demography
- drug service utilisation
- heroin use and illicit methadone use
- benzodiazepine use
- forensic history

A pilot study was performed in five practices between December 1998 and January 1999. Changes to the design of the proforma were necessary. However, these changes purely concerned layout and as a result, data so collected was eligible for inclusion in the final analysis.

### **Data analysis**

Statistical analysis was performed using Epi Info version 6.04b<sup>21</sup>.

Analytical techniques included chi squared test (with Yates correction in the case of small sample sizes) to determine the significance of associations between categorical variables. Odds ratios and their 95% confidence intervals were used to describe the relationship between subject characteristics. The Student's t-test was used to compare the difference in means of continuous variables. The Kruskal Wallis test was performed when the

distribution of a continuous variable was skewed (distributions compared by Bartlett's test for homogeneity of variance).

### **Ethics**

The Research Ethics Committee of the Irish College of General Practitioners granted approval for this study.

### **Results**

#### **Generalisability of study**

A total of 917 clients were registered with the Central Methadone Treatment List (CMTL) at 20th October 1998 as receiving methadone treatment from 89 GPs.

A total of 42 GPs (47% of those invited) participated in the study. Although these GPs had a total of 692 clients registered on the CMTL (75% of total), only 571 individuals were receiving treatment from these practices. This indicates that 121 of those registered as receiving methadone from their GPs by the CMTL (17% of total number) were unknown to the participating GPs.

A wide variation in data recording was noticed between all the respective items. Items which were recorded in more than 70% of records included: age, sex, time since last seen by GP, area of residence, current prescribed methadone use, duration of current prescribed methadone use, current heroin use, previous heroin use, HIV status, hepatitis B (HBV) status and hepatitis C (HCV) status.

Items that were recorded in less than 70% included: occupation, marital status, age of first injecting, illicit methadone use, alcohol use and cigarette smoking.

### **Demography**

The mean age was 28 years, 72% were male, 82% had never married and 30% had a forensic history documented in their chart. Males were significantly older than females (28.5 years compared to 27.0 years,  $p < 0.005$ ). The mean number of weeks since the clients had been seen by their GP was one.

The five postal areas with the largest numbers of clients were: Dublin 7 (88), Dublin 8 (78), Dublin 1 (55), Dublin 11 (54) and Dublin 22 (52). There was a significant difference in the mean age of clients from the respective areas ( $p < 0.001$ ), with Dublin 11 (25.1 years) having the youngest and Dublin 8 (30.6 years) having the oldest.

A total of 145 (49%) were unemployed. A total of 184 (79%) belonged to social class VI, 8 (3%) to social class V, 23 (10%) to social class IV, 8 (3%) to social class III, 8 (3%) to social class I and 1 to social class I.

A total of 235 (88%) used alcohol and 237 (96%) smoked tobacco.

## Drug use

### 1. Previous (more than three months)

A total of 555 (97%) had used heroin previously (see Table 1), but 78 (12%) had never injected. Illicit methadone use was recorded in 119 (21%) cases. The mean age of first drug use was 15.5 years and the mean age of first injecting was 19.4 years, indicating a delay of 3.9 years from first using to first injecting drugs.

**Table 1**

<b>Current and previous heroin use.</b>		
	<b>Current (less than three months)</b>	<b>Previous (more than three months)</b>
Using heroin but route not specified	49 (54%)	149 (27%)
Injecting heroin	28 (31%)	311 (56%)
Smoking / inhaling heroin	13 (14%)	92 (17%)
Skin popping heroin	1 (1%)	3 (1%)
Not using heroin	444 (78%)	6 (1%)
No record of heroin use	36 (6%)	10 (2%)
<b>Total</b>	<b>571 (100%)</b>	<b>571 (100%)</b>

It appears that young drug users are starting to use drugs at a significantly earlier age (see Table 2). The mean age of first drug use in those aged under 23 was 14.4 years, compared to 16.4 years in those aged over 32 ( $p < 0.01$ ).

**Table 2**

<b>Comparison of initiation to drug use and duration of treatment between age groups of drug users.</b>			
<b>*Current age (years)</b>	<b>Mean age of first drug use (years)</b>	<b>Delay between initiation and</b>	<b>Mean duration of current methadone maintenance</b>

			injecting (years)	treatment (months) <sup>c</sup>
	Any route <sup>a</sup> (n=200)	Injecting <sup>b</sup> (n=332)		
<23	14.4	17.4	3.0	10.6
23-26	15.9	19.2	3.3	17.0
27-32	16.3	21.0	4.7	13.0
>32	16.4	21.1	4.7	17.8

\*These age groups have been selected as they most closely approximate to the four quartiles.

**a** Kruskal Wallis H=11.65, three degrees of freedom, p<0.01.

**b** Kruskal Wallis H=36.39, three degrees of freedom, p<0.00001.

**c** Kruskal Wallis H=21.07, three degrees of freedom, p<0.0005.

More worryingly, however, it appears that young drug users are starting to inject at a significantly earlier age (see Table 2). The mean age of first injecting in those aged under 23 was 17.4 years; compared to 21.1 years in those aged over 32 (p<0.00001). Furthermore, the delay in progression from using any drugs to injecting drugs is 4.7 years in those aged over 32 but only 3.0 years in those aged under 23.

## 2. Current (less than three months)

The clients had been on methadone maintenance for a mean of 14 months. Young drug users had been on methadone maintenance for significantly less time (see Table 2, p<0.0005). A total of 91 (16%) were still using heroin, but only 3 (1%) were still using illicit methadone (see Table 1).

Heroin use appears to have decreased (see Table 1). The number using has fallen from 555 (97% of total where heroin use was recorded) to 91 (16%). The proportion that injects heroin has fallen to a greater extent than the proportion inhaling (see Table 1). In those cases where the route of heroin use was recorded, the proportion injecting has fallen from 77% to 67%.

Those who were currently abstinent from using heroin had been on methadone maintenance treatment for longer (14.9 months compared to 9.9 months, p<0.005). In addition, they were older (28.2 compared to 27.1 years), but not significantly so (p>0.05). Current abstinence from heroin use was not associated with: age gender, length of time since last attended GP, benzodiazepine prescribing, employment status, forensic history or bloodborne

virus status (see Table 3).

**Table 3.**

<b>Factors associated with current abstinence from heroin use.</b>					
<b>Factor</b>	<b>n</b>	<b>% abstinent from using heroin</b>	<b>Odds ratio</b>	<b>95% confidence interval</b>	<b>Chi<sup>2</sup> (p value)</b>
<b>Benzodiazepines prescribed</b>					
Ever	443	83	0.94	0.49-1.80	0.04 (>0.05)
Never	92	84	1.0		
<b>Employment status</b>					
Unemployed	139	81	0.88	0.46-1.67	0.19 (>0.05)
Employed	149	83	1.0		
<b>Forensic history</b>					
Yes	167	80	0.72	0.43-1.19	1.93 (>0.05)
No	368	85	1.0		
<b>HIV status</b>					
Positive	30	93	2.84	0.62-18.05	2.13 (>0.05)
Negative	314	83	1.0		
<b>HBV status</b>					
Positive	43	77	0.60	0.26-1.18	1.67 (>0.05)
Negative	273	85	1.0		
<b>HCV status</b>					
Positive	270	83	0.71	0.34-1.45	1.02 (>0.05)
Negative	102	88	1.0		
<b>Gender</b>					
Male	156	79	0.67	0.41-1.12	2.68 (>0.05)
Female	379	85	1.0		

### **Benzodiazepine prescribing**

Data was recorded on current (defined as within the previous three months) and previous (defined as more than three months ago) benzodiazepine prescribing. The number being prescribed this class of drug has fallen from 95 (17% of total) to 62 (11%), representing a 35% reduction. In addition, the number of patient being prescribed more than one drug of this class has fallen from 42 to 22 (48% reduction). Diazepam (41 cases), flurazepam (25 cases), zopiclone (8 cases) and flunitrazepam (8 cases) are the most commonly prescribed benzodiazepines.

## Discussion

Information on drug use in Dublin has been reported previously. A report by the Health Research Board<sup>22</sup> contains data on over 12,000 contacts with the drug treatment services recorded between 1990 and 1994. A report by Smyth *et al*<sup>23</sup> contains data on 733 attenders at the Drug Treatment Centre recorded between 1992 and 1997. Data on 3170 clients registered with the Central Methadone Treatment List has been reported by Comiskey<sup>8</sup>. A report by Bury *et al*<sup>24</sup> contains data on 98 clients considered stable enough for inclusion in a randomised controlled trial of methadone maintenance in general practice.

This report represents a sample of drug users attending general practice in the Eastern Regional Health Authority area in early 1999. The mean age in this cohort is older than the cohorts referred to above (see Table 4). The mean age of first injecting approximates to that reported recently by Bury *et al*<sup>24</sup> (see Table 4). Both the proportion of males and unemployment rate are lower than that reported previously (see Table 4).

**Table 4**

Comparisons with earlier studies from Ireland						
Subjects	Study period	n	% male	% unemployed	Mean age of first injecting (years)	Mean age (years)
All drug users <sup>22</sup>	1990-94	12848	74	82	not reported	25
Drug users attending Drug Treatment Centre <sup>23</sup>	1992-97	733	72	not reported	21	23
Drug users being discharged to GPs <sup>24</sup>	1996	98	76	62	19	33
All drug users <sup>8</sup>	1996	3170	70	not reported	not reported	27
Drug users attending GPs (this study)	1999	571	72	49	19.5	28



The proportion being prescribed benzodiazepines (11%) and the proportion with a documented forensic history (29%) are both lower than that reported previously<sup>24</sup> (49% and 68% respectively).

Comiskey reports that the five postal districts with the highest estimated prevalence of heroin use are: Dublin 8 (101/1000), Dublin 10 (107/1000), Dublin 1 (64/1000), Dublin 7 (50/1000) and Dublin 22 (50/1000). The five postal districts with the highest representation in our study are: Dublin 8 (20%), Dublin 10 (13%), Dublin 1 (eight percent), Dublin 11 (eight percent) and Dublin 22 (eight percent).

The Central Methadone Treatment List (CMTL) is a register of all those currently receiving methadone treatment. It contains patient data and a corresponding source for methadone treatment in each case. At the time this study was conducted, the CMTL indicated that the participating GPs were treating 692 patients. However, in the course of the practice visits, the participating GPs could only identify 571 patients as being in treatment. This represents a discrepancy of 121 (21%). Reasons for this should be explored in further research.

This study provides information that reflects process of care of drug users attending general practice for treatment. It appears that data recording varies considerably according to the item in question. In this regard, it is reassuring that data such as age, gender, date last seen by GP, area of residence, prescribed methadone treatment, duration of current treatment, current heroin use, previous heroin use and bloodborne virus status are all recorded in most charts. Furthermore, it is reassuring to note that most patients had been seen within one week of the practice visit by the researcher.

This study also provides information on issues of clinical interest for those involved in the care of this population. It would appear from this study that young drug users are starting to use drugs at an earlier age and inject drugs at an earlier age. In addition, the delay between using drugs and injecting is becoming shorter. This is supported by comparing the four age quartiles within this study and also by comparing this study with previous work in this area.

The mean age of this population is older than that reported in earlier studies. In addition, the population is positively skewed. This study provides data on drug users attending general practice, whereas the above have concentrated on populations attending other elements of the service. Hence, we may conclude that drug users attending general practice for methadone maintenance are older and are more likely to be currently

employed, than those attending other drug services. The geographical variation of illicit drug use appears to be consistent with other research, as is gender and age of initiation to injecting drug use.

Finally, one must remember that this population represents all those patients considered stable enough to receive methadone maintenance treatment from their GP. In this context, 16% still using heroin, of which 31% are still injecting, represents quite a significant level of continued risk activity. With little incentive for clients to admit drug use, it is possible that this data may even be an underestimate.

### **Acknowledgements**

#### **Funding**

This study was commissioned by the Eastern Regional Health Authority, through its funding of the HIV in Primary Care Research Unit at the Department of General Practice, University College Dublin, Ireland.

### **Acknowledgements**

The authors would like to acknowledge the work of the participating GPs whose help was invaluable in data collection. These included: Doctors

- Bay Ashcroft-Jones,
- Fiona Bradley,
- Brian Byrnes,
- Denis Corboy,
- Truls Christiansen,
- Edward Cox,
- Anthony Craig,
- Des Crowley,
- Muiris de Bhulbh,
- Ide Delargy,
- John Gilbert,
- Aidan Hampson,
- Mairead Hannon,
- Kieran Harkin,
- William Kavanagh,
- John Latham,
- Emer Loughrey,
- Anjum Madani,
- John McManus,
- Mairead McNeela,
- Cyril McNulty,
- Gerry Moran,

- Joseph Murphy,
- Robert Nelson,
- Niall O’Cleirigh,
- Austin O’Carroll,
- Philip O’Connell,
- Kevin O’Doherty,
- John O’Grady,
- Ken Olinger,
- Peter O’Sullivan,
- Robin Quigley,
- Catherine Quinn,
- John Ryan,
- John Synnott,
- John Tierney,
- Mark Wheeler,
- Maria Wilson, and
- Professor Thomas O’Dowd.

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