

Information on co-morbidity on inpatient admissions

Dear Editor – The HRB would be delighted to include information on co-morbidity on inpatient admissions as suggested by Dixit and Payne (*Ir J Psych Med* 2008, 25(4)). We would be happy to do so were secondary or accompanying diagnoses supplied to us as our forms/systems allow. Unfortunately clinicians seldom if ever return co-morbid diagnostic information; indeed it is at times difficult enough to acquire a principal or preliminary diagnosis. It is understandable that diagnosticians may have difficulty in complex presentations in establishing a definitive diagnosis at or shortly after admission and for this reason the facility for assigning a preliminary diagnosis on admission is provided. Where a preliminary diagnosis is later superseded there is accommodation on the forms for a final discharge diagnosis. The HRB is most anxious to progress information systems in mental health services as recommended in A Vision for Change and is in the process of significant developments in this field in collaboration with HSE and other stakeholders (www.hrb.ie).

We would be delighted to present and review with psychiatrists (consultants and trainees) our activities in this area. Accordingly we would be happy to make presentations to such bodies or groups as are thought relevant - through the Irish Post Graduate Training Committee or the College of Psychiatrists in Ireland. Antoinette Daly, Dermot Walsh, Health Research Board, Dublin 2.

Antoinette Daly

Research Officer
Mental Health Research Unit
Health Research Board
An Bord Taighde Sláinte
Knockmaun House
42-47 Lower Mount Street
Dublin 2, Ireland.

Methadone and its effect on QTc prolongation

Dear Editor – Methadone is a synthetic opioid which has been successfully used in treating heroin addiction and chronic pain syndrome in palliative care for more than 30 years. Methadone maintenance programmes for heroin dependency has shown reduction in mortality and morbidity. It has shown direct reductions in addiction related crime and drug arrests.¹⁻³ Several case reports have highlighted methadone's association with QT prolongation and the risk of Torsades de Pointes, a potentially lethal ventricular tachycardia. Levacetylmethadol, a derivative of methadone was withdrawn from US markets in 2003 due to prolongation of QT interval and an association with Torsades de Pointes.⁴⁻⁶

Methadone delays cardiac repolarisation by blocking the rapid component of 1kr potassium channels, encoded for by human ether a-go-go related gene (hERG) or *KCNH2*. Methadone is metabolised by isoforms CYP3A4 and to a lesser extent by the isoenzyme CYP 2D6 of the hepatic cytochrome-P450-system. Several risk factors have been

identified as contributing to QT prolongation, including high methadone dose, structural or ischaemic heart disease, family history of sudden cardiac death, hypokalaemia, altered liver function and concurrent use of CYP3A4 inhibitors. Ingestion of cocaine and methadone can also contribute to QT prolongation.^{4,8}

Patients on methadone maintenance programmes are therefore automatically at risk of QT prolongation due to frequency of concomitant medical conditions, cocaine abuse and prescription of additional medications.⁹

Case No 1.

LH is a 29-year-old lady on the methadone maintenance programme for the past 10 years. She has a background history of ongoing heroin and cocaine addiction. She attends the drug treatment centre and is dispensed methadone 110mg daily. In addition, she has multiple medical problems including HIV, hepatitis C, pneumonia, pericarditis and bilateral lower limb ulcers. She requires regular antibiotic treatment and is currently prescribed clarithromycin. She is treated for depression with Sertraline (SSRI). LH presented to Accident and Emergency Department with fainting episodes, dizziness, shortness of breath, facial pallor and pyrexia. Her urine toxicology was positive for heroin, methadone and cocaine.

A 12 lead ECG showed QTc prolongation 540 msecs. She was treated successfully for a lower respiratory tract infection. Her methadone dose was gradually reduced from 110mg to 80mg. Her ECG showed reduction of QTc prolongation to 410 msecs. She was discharged and referred back to drug treatment services.

Case No 2.

ML is a 28-year-old gentleman on the methadone maintenance programme for the last 8 years. He has a background of heroin and cocaine addiction and also admits to abusing methadone. He is dispensed methadone 120mg daily. His medical history includes HIV, hepatitis C, pneumonia, chronic leg ulcers and deep vein thrombosis. He is prescribed fluoxetine for depression. He was prescribed ciprofloxacin for a lower respiratory tract infection. He presented to an Accident and Emergency department and was admitted medically with symptoms of chest pain, shortness of breath, cough, dizziness, tiredness and feeling faint. His urine toxicology was positive for heroin, methadone, cocaine and benzodiazepines. His 12 lead ECG showed QTc 490 msec. He was treated with co-amoxiclav for pneumonia. His methadone dose was reduced to 100mg once daily. His ECG then showed QTc 417 msec. He was discharged back to drug treatment services.

Discussion

Methadone induced QT prolongation is not an uncommon event and is associated with Torsades de Pointes, a life-threatening ventricular arrhythmia. Patients on the methadone maintenance programmes may have a history of abusing cocaine, tend to have additional medical problems, may also be taking additional medications (eg. CYP3A4 inhibitors) and are prone to experience electrolyte disturbances. These risk factors may act synergistically with methadone to prolong the QT interval. Heroin addicts sometimes faint whilst using recreational drugs and doctors might attribute these episodes of syncope to illicit drug use and thereby underestimate the incidence of Torsades de Pointes in this population.^{10,11}

Physician awareness and knowledge of the effects of methadone dose on QT prolongation and development of Torsades de Pointes is of huge importance. Patients on methadone would benefit from screening for cardiac risk factors. An electrocardiogram is deemed important in patients on high doses of methadone, an increasing methadone dose and if commencing QT prolonging medications.

Drug-drug interactions play a key role in the occurrence of QT interval drugs. Routine toxicology screening is invaluable to monitor for abusing cocaine and unreported methadone physicians need to enhance the monitoring of out at risk vulnerable population who lead a chaotic lifestyle and some without a general practitioner. Improved communication between drug treatment services, general practitioners, infectious disease clinics and cardiology department to ensure follow up and management of our at risk population.¹²

**Deirdre Hussey,
Catherine McCarthy,
Eamon Keenan,**
National Drug Treatment Centre,
Pearse Street,
Dublin, Ireland.

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Community placement planning for a long stay in-hospital population

Dear Editor – The policy report “Planning for the Future” recommended the increased transfer of patients from Psychiatric Hospitals to community-based care programmes services.¹ However, despite the increase in community alternatives in recent years, the provision of these services remains inadequate.^{2,3} Care in the community can only work for patients who are well enough to live and survive in the community, and consequently a systematic needs-assessment approach is essential for responsible and effective placement planning.⁴ Such planning requires multidimensional needs-assessment rather than just diagnosis-based approaches, as diagnosis alone is a poor predictor of patients’ needs as well

as their use of resources.⁵ In the present study, the institutional and community service requirements of patients from the inpatient facilities of an urban psychiatric hospital were assessed. In addition, patient preferences for long-term care and accommodation were elicited.

Method

St Brendan’s Hospital is a long-established public hospital offering long term and continuing care needs for people with high levels of psychiatric and social disability, as well as rehabilitation services for those with high levels of psychiatric need. Data on all current long-stay patients (n = 71) were analysed in the current study.

The Community Placement Questionnaire (CPQ) is a standardised scale completed by a multidisciplinary team member involved in the patient’s daily care.⁶ The CPQ is divided into two sections: 1) basic patient information, 2) factors associated with community placement, including the patient’s social functioning, problem behaviours, physical disability, and daytime activity levels. An overall index of the patient’s level of social functioning can be derived and patients can be classified into one of five categories ranging from very poor to high. A “Hard to Place” score can also be derived based on weightings applied to items and a score greater than 10 is judged as potentially “Hard to Place.” A number of studies have used the scale in Irish samples.⁷⁻⁹

Differences in proportions of categorical data were analysed using the binomial test, and associations between categories were assessed using χ^2 two tests. Comparisons between groups in relation to continuous data were performed using independent samples t-tests and all comparisons were two-tailed. Statistical significance was set at .05 for all comparisons.

Results

The sample of 71 patients comprised significantly ($p < .001$) more males (n = 52) than females (n=19), and was predominantly single (85%). Over two-thirds of patients were diagnosed with schizophrenia, and the average age was 51.9 years (sd = 11.9 years). The sample comprised 40 voluntary admissions (56%) and 31 (44%) compulsory detainees. The mean length of time in hospital was 95 months (sd = 101 months), and 53% percent were in the hospital for up to 5 years, 14% were in hospital for 6-10 years, and 33% were in hospital for over 10 years.

Social, behavioural and psychological functioning

Social functioning can be categorised into five categories and the sample was characterised by a low level of functioning, with the percentages falling into each category presented in *Table 1*, alongside comparative data from the UK.

The sample had significantly poorer social functioning than the both the validation sample of long-stay patients in the UK ($\chi^2(3) = 12.6$, $p < .01$) and community treated psychiatric patients ($\chi^2(3) = 71.2$, $p < .0001$).

In general, the patients were characterised by relatively high levels of behavioural (eg. stealing, inappropriate sexual behaviour, alcohol/ drug use, threatening behaviour) and psychological (eg. behaviour consequent on delusional beliefs, cognitive impairment) difficulties. Over one third of the patients (38%) had serious to very serious problems with socially unacceptable behaviours that could make placement difficult. For example, over one third of the patients were rated as having dangerous tendencies towards staff, and/

Table 1: Levels of social functioning among the sample and comparative data

Social functioning	Current study %	Hospital %	Community %
High	4	12	36
Moderate	21	36	40
Low	23	19	17
Poor/very poor	52	33	5

Hospital and community data from Clifford et al.¹¹

or other patients; nearly one quarter were rated as being in danger of self-harming. Of note, 29% of the sample had a serious history of violence (eg. assault), 5% had a history of other dangerous or criminal behaviour (eg. burglary, sexual assault) and 24% had been admitted to a special hospital. In past two years, it was necessary to contain 62% (n = 41) of patient on a locked ward or other secure environment. Reason for containment included assaulting a member of staff, assaulting other patients, assaulting family members, self-harm, and dangerous/threatening behaviour.

Physical and occupational functioning

Nearly three quarters of the patients had no disability (73%), and 11% had intermittent minor problems, 10% had a moderate disability, and only 6% had a serious disability. Sixty four (93%) had no impairment in mobility. Only two patients were not on medication, and nearly all patients required supervised medication administration by staff. Of note, 11% were reported as having major problems in administration, eg. refusing medication. Nearly all (97%) of the patients had no work experience outside of the hospital in the past two years, and only two participated in sheltered work or a work experience scheme. A majority of patients were rated as being unable/resistant to work (57%), with a further 29% rated as being able to only perform simple tasks such as light gardening, sweeping, washing up. A small number (7%) of patients were rated as being able to carry out sheltered work, such as printing, basic clerical work or factory tasks.

Community placement

Only 3% of the patients had no problems in relation to possible community placement, whereas 25% had moderate problems, 44% had serious problems, and 29% had very serious problems. Staff rated that the best long term placement for 40% of patients was to remain in hospital. In comparison to those rated as being appropriate for community placement, those recommended for placement in hospital were significantly older (mean difference = 8.8 years, $t = 3.2$, $p < .005$, 95% CI: 3.3 - 14.4) and had been in hospital longer (mean difference = 72 months, $t = 2.6$, $p < .05$, 95% CI: 16.6 - 126.9). They had more socially unacceptable behaviours (mean difference = 0.8, $t = 2.2$, $p < .05$, 95% CI: 0.1 - 1.6), more severe socially unacceptable behaviours ($\chi^2(1) = 3.9$, $p < .05$), more severe psychological impairments in their ability to function effectively ($\chi^2(1) = 3.8$, $p < .05$), and more severe danger to self or others ($\chi^2(1) = 5.8$, $p < .01$). For 91% of the patients recommended for placement in the community, there would be occasional requirement for treatment away from their placement (ie. on a locked ward, admission ward, or temporary transfer to rehabilitation unit).

There was a significant discrepancy ($\chi^2(6) = 132.8$, $p <$

Table 2: Comparison of staff recommendations and patient preferences for long-term placement

Long-terms placement	Staff %	Patients %
Hospital	40	9
Staffed home (high)	33	0
Rehabilitation unit	16	0
Staffed home (low)	5	46
With family	3	15
Hostel	3	13
Independent living	0	17

.001) between the staff recommendations and the patient preferences for long-term placement (see Table 2). Staff tended to recommended placements with higher levels of support whereas the patients preferred low levels of support. Of note, approximately one third (32%) of patients expressed a preference for independent living or living with family; staff did not recommend that any patient live independently and a family placement was rated as appropriate for only 3%.

Hard to place scores

Approximately two thirds of the sample (65%) was categorized as being hard to place according to the CPQ. In comparison to those not rated as "Hard to Place", the Hard to Place group were significantly younger (mean difference = 6.5 years, $t = 2.3$, $p = .03$, 95% CI: 1-12), were more likely to be a compulsory detainee ($\chi^2(1) = 24.7$, $p < .001$), had significantly more socially unacceptable behaviours (mean difference = 1.1, $t = 2.9$, $p = .004$, 95% CI: 0.4 - 1.8), were significantly more impaired function due to psychological problems (mean difference = 0.7, $t = 2.2$, $p = .03$, 95% CI: 0.7 -1.3), were more likely to be recommended high supported work environments ($\chi^2(1) = 7.1$, $p = .02$), were rated as being significantly more dangerous towards self or others ($\chi^2(4) = 18.5$, $p < .001$), had a more serious history of violence ($\chi^2(4) = 31.6$, $p < .001$), and in the past 2 years were more likely to have been contained in a secure environment ($\chi^2(2) = 13.6$, $p < .001$).

Discussion

Community placement of individuals with mental health problems needs to be informed by accurate information about the needs of currently hospitalised patients. The current study ascertained the current levels of functioning and placement needs of patients using CPQ. The information provided by the CPQ is congruent with recent recommendations by the Expert Group on Mental Health Policy, which state that care plans should reflect the service user's particular needs, goals and potential.¹⁰

The patients in the current study tended to be single, middle-aged males with schizophrenia; although they had low levels of physical disability, only 3% had work experience outside of the hospital in the past two years. The number of patients compulsorily detained (44%) in the sample was similar to that reported in a previous Irish study.⁹ Behavioural and psychological difficulties were present to a significant extent, and the patients had low levels of social functioning. Only 25% of patients were in the moderate to high social functioning category; this value is significantly lower than that reported in the UK research using the CPQ with both

hospitalized and community-based psychiatric patients.⁶

Patients were rated as posing a danger to self or others; nearly two thirds of the patients required containment in a secure environment in the past two years. In general, it appears as if the current sample are more dangerous to self and others than those reported in previous Irish studies using the CPQ.⁷⁻⁹ Staff recommended that a substantial number (40%) of patients should remain in hospital, and such patients were older, had been in hospital longer and had more severe social, psychological, and behavioural difficulties. Overall the findings suggest that the clinical profile of the patients is consistent with observations that long stay patients remaining in hospitals are more complex and higher risk.¹¹

A large proportion (approximately two thirds) of patients are likely to be hard to place in the community. These patients had a more serious history of violence and were rated as being a threat to self or others. The severity of the client population's history of dangerous behaviour raises concerns over the ease at which such patients can be safely placed in the community. Moving a patient to a lower level of security requires careful consideration of the patient's risk stratification and a variety of clinical criteria.¹²

The use of scales such as the CPQ for planning purposes is advantageous as it is based on systematic information; previous research reported that community placements were often not based on appropriate information.¹³ The CPQ provides a comprehensive assessment to optimise the fit between the care programme and the identified needs of the individual. Furthermore, the CPQ allows the patients state their accommodation preferences. Such information is in line with increased emphasis on including patient's preferences in treatment.¹⁴ There was a marked discrepancy between the patient preference and the staff recommendation: staff tended to recommended community placements with higher levels of support whereas the patients preferred low levels of supported employment. Of note, approximately one third of patients expressed a preference for independent living or living with family; staff did not recommend that any patient live independently and a family placement was rated as appropriate for only 3%.

This study looks at a unique population (eg. long-stay patients, step-down patients from Central Mental Hospital) from a single centre and the generalisability of findings may be limited. The findings of long-stay population's multiple disabilities and complex placement needs are similar to previous studies of hospitalised patients (eg. 6-9). However, the current sample of long stay patients may represent a more severely disabled sample with unique challenges. In the absence of comprehensive community services, it seems necessary at present that a substantial number of hospitalised patients remain in hospital.

Conclusion

The current study provides a profile of the abilities and needs of a long stay population to inform planning about discharge to the community. Such placement planning is essential if hospital closure is realised.

Angela Mohan,

St. Vincent's Hospital, Fairview, Dublin,

David Hevey, Amy Brogan,

School of Psychology,

Trinity College Dublin, Ireland

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