Analysis of Episodes of Involuntary Re-admission in Ireland (2007-2010)

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Abstract

Objectives: Initial examination of data held by the Mental Health Commission indicated a number of patients having repeated involuntary readmissions (defined as patients having three or more involuntary episodes in a calendar year). The Commission sought more empirical analysis of the data relating to these patients, to determine if there were any trends or commonality regarding their demographic characteristics, length of episode, and diagnoses.

Methods: From 1 November 2006 the Mental Health Commission has been notified of all involuntary admissions in Ireland under the Mental Health Act (2001). From this national database information on patients who have had three or more involuntary admissions per year was analysed.

Results: In the period studied there has been an overall reduction in the number of voluntary and involuntary admissions to Irish psychiatric hospitals and units. However, the use of involuntary admission remains constant at around 10% of all admissions. Seven percent (n=569) of involuntary admission orders in this four year period relate to two percent (n=121) of all involuntary patients. Patients who have experienced repeated involuntary admissions are predominantly male (59%), often have a diagnosis of schizophrenia, or schizotypal and delusional disorders (57%), or mania (20%), are in the age band 22-64 (80%) and more often live in rural counties.

Conclusions: Potential appears to exist to significantly reduce the number of involuntary admissions by focusing on the care given to patients who are repeatedly re-admitted. More analysis is needed of voluntary and involuntary re-admissions if inpatient facilities are to be effectively configured.

Key words: Involuntary re-admissions; national data; legislation.

Introduction

Analysis of rates of involuntary admission for patients with a mental disorder across the European Union (EU) show the rates vary remarkably.[1] The available year of data collection varied from country to country over a period from 1998 to 2000 and it was acknowledged that data collection procedures varied from country to country. Rates of involuntary admission for mental disorder in EU countries ranged from six per 100,000 of population in Portugal to 218 per 100,000 of population in Finland. The findings suggest that the variations may be due to the influence of different legal frameworks and procedures. Time series analysis suggests an overall tendency towards more or less stable quotas in most EU states. Ireland reported a 1999 rate of 74 involuntary admissions per 100,000 of total population in 1999 in the EU study and in 2010 a rate of 46.04 was reported by the Mental Health Commission.[2]

An American study evaluated adult inpatients with schizophrenia or schizoaffective disorder (n=262) at hospital discharge and three months later to assess hospital readmission.[3] Early readmission was associated with four or more previous hospitalisations (85.7% vs. 57.7%, p=0.004), comorbid substance use disorder (60.3% vs. 35.5%, p=0.0006), major depression (40.6% vs. 26.8%, p=0.04), absence of a family meeting with inpatient staff (58.2% vs. 41.8%, p=0.02), and prescription of a conventional rather than an atypical antipsychotic medication (93.7% vs. 83.8%, p=0.045). Staff had correctly predicted that twelve of the 63 readmitted patients would be rehospitalised. Staff tended to overestimate the risk of rehospitalisation in patients with a poor therapeutic alliance, low global function, or initial involuntary admission and to underestimate the risk in patients with alcohol use disorders or four or more previous psychiatric hospitalisations.

A systematic review of the literature on the outcome of acute hospitalisation for adult general psychiatric patients admitted involuntarily as compared to patients admitted voluntarily showed that length of stay, readmission risk and risk of involuntary readmission were at least equal or greater for involuntary patients than for voluntary patients.[4] The studies came mostly from North American and European countries. Involuntary patients showed no increased mortality, but did have higher suicide rates than voluntary patients.

There have been a number of studies using national registers that investigated factors predicting readmission to psychiatric hospitals and the interval between readmissions. These were in Finland (early 1990s),[5] Israel (1978-1992)[6] and Ireland (2001-2005).[7] In the Finnish study, factors found to predict readmission were

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length of stay and diagnosis. Patients with a diagnosis of psychosis or personality disorder were readmitted twice as often as patients with an organic disorder, and patients admitted voluntarily had more repeated readmissions than the patients admitted involuntarily. In the Irish study the strongest predictors of readmission were age, primary diagnosis, gender and having a secondary diagnosis. The Israeli study found a strong association of involuntary legal status at first admission with involuntary status at second admission and with the number of involuntary admissions over time.

Fifteen per cent of the cohort in a study in New South Wales, Australia[8] was in the Mental Health Review Tribunal (MHRT) system for the full period from their initial contact with the MHRT in 2003. These individuals also accounted for one-third of all the MHRT hearings examined. The authors relate this to the severe and intractable nature of the mental conditions of some individuals appearing before the MHRT and highlight the high workload created for the MHRT by such a modest proportion of clients. Further data is available on the wider Australian mental health tribunal systems[9] that shows the effect of involuntary readmission on the resources of the tribunal. However care is needed when making cross national comparisons as the legislative basis for review by a mental health tribunal can differ. For example the Irish legislation has no mechanism for ad hoc requests for a review by a patient or by concerned others.

Initial examination of data held by Ireland's Mental Health Commission indicated a number of patients having repeated involuntary readmissions (defined as patients having three or more involuntary episodes in a calendar year). The present study examines data relating to these patients' demographic characteristics, length of episode, and diagnoses.

Methods

The Mental Health Act 2001 commenced fully in Ireland on 1 November 2006. From this date new legal procedures were introduced in Ireland for involuntary admission. The 2001 Act introduced provisions for a system of free legal representation for adults and independent reviews during an episode of involuntary admission. Reviews are completed by a mental health tribunal at various stages during each episode of detention. Under the 2001 Act the detention periods last up to 21 days, then renewal orders can be made for periods of up to three months, then up to six months and thereafter for periods of up to 12 months. The Mental Health Commission is informed of each involuntary admission and renewal order and has developed an information system, called System for Involuntary Admission and Tribunals (SIAT), to hold and process the data. The Commission uses this information to arrange legal representation and an independent review by a three person mental health tribunal within 21 days of the date of the making of an order. Involuntary admission procedures for children differ from those for adults and are dealt with in other sections of the Act. The 2001 Act has provisions for two methods of initiating an episode of involuntary admission for an adult; an Involuntary Admission Order for up to 21 days, (Form 6) and a Certificate & Admission Order to detain a Voluntary Patient (Adult), (Form 13) which also detains a patient for up to 21 days. In the four year period, 2007-2010 there have been 8,108 episodes of involuntary admission.[2] An episode of involuntary admission is defined by the Commission as a patient's unbroken period of involuntary admission. If the period is broken by discharge or regrading to voluntary status then the episode ends, and should another involuntary admission subsequently reoccur that will count as a new episode.

Over the three year period 2007-2010, available from Health Research Board reports, there has been a six percent decrease in all types of admission to psychiatric units and hospitals.[10] Their figures show overall a reduction in the use of admission to Irish psychiatric hospitals and units (-six percent), both voluntary and involuntary, with use of involuntary orders accounting for eight percent of all admissions.

This study used data from the Mental Health Commission System for Involuntary Admission and Tribunals (SIAT), which has a complete listing of all involuntary orders notified to the Commission in Ireland since November 2006. It is a statutory requirement that these orders be notified to the Commission.

Cases where three or more episodes of involuntary admission occurred in a calendar year during the four-year period 2007-2010 were chosen for detailed analysis. There were 121 patients (two percent of total patients in the period) in this category and they had 569 episodes (seven percent of total involuntary episodes in the period). The Mental Health Commission does not receive individualised information on the voluntary admission of adults; therefore analysis of voluntary admissions relating to the 121 patients is not included in this paper.

Results

Table 1 below shows the number of patients who had one or more episodes of involuntary admission in the four year period 2007-2010. For example in 2007 there were 1,581 patients who had

Table 1. Episodes of Involuntary Admission (Adults)

	Column A One Episode	Column B Two Episodes	Column C Three Episodes	Column D Four or More Episodes
No. of patients 2007	1,581	206	34	5
No. of patients 2008	1,483	201	29	7
No. of patients 2009	1,574	174	24	7
No. of patients 2010	1,553	161	16	7
Total	6,191	742	103	26

Figures include all Involuntary Admission Orders for up to 21 days, (Form 6) and all Certificates & Admission Orders to detain Voluntary Patients, (Form 13).

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Table 2. ICD 10 Diagnostic Group (Coded At Close Of Episode)

ICD-10 diagnostic groups	ICD-10 Code	Total Number of Patients	(%)
1. Organic Disorders	F00-F09	11	9%
2. Alcoholic Disorders	F10	3	2%
3. Other Drug Disorders	F11-F19, F55	1	1%
4. Schizophrenia, Schizotypal and Delusional Disorders	F20-F29	69	57%
5. Depressive Disorders	F31.3, F31.4, F31.5, F32, F33, F34.1, F34.8, F34.9	9	7%
6. Mania	F30, F31.0, F31.1, F31.2, F31.6, F31.7, F31.8, F31.9, F34.0	24	20%
7. Neuroses	F40-F48	1	1%
8. Eating Disorders	F50	0	0%
9. Personality and Behavioural Disorders	F60-F69	2	2%
10. Intellectual Disability	F70-F79	1	1%
TOTAL		121	100%

one episode of involuntary admission, 206 patients had two episodes, 34 had three episodes, and five had four or more episodes of involuntary admission.

Table 1 above shows that in the four-year period 2007-2010 there were 103 instances of patients having three involuntary episodes and 26 instances of patients having four or more involuntary episodes, i.e. all instances from Columns C and D.. When the episodes in columns C and D were further analysed it emerged that these related to 121 patients. Each of these 121 patients had a minimum of three or more episodes of involuntary admission in any given year in the four-year period. Some had many more, as they had further involuntary admissions in subsequent years. Further analysis shows this group of patients incurred a total of 569 involuntary episodes in the period, i.e. seven percent of total episodes in the period were incurred by two percent of all involuntary patients in the four-year period. There were 40 patients who had three episodes, 32 patients had four and 49 patients had five or more episodes in the four year period 2007-2010.

Analysis of the method used to initiate each of the 569 involuntary episodes shows that an Involuntary Admission Order for up to 21 days, (Form 6) was used in 383 (67%) episodes, a Certificate & Admission Order to detain a Voluntary Patient (Form 13) was used in 175 (31%) episodes and 11 (two percent) were episodes that were open at date of commencement of the 2001 Act that became the subject of transitional procedures.

Further analysis was undertaken of those 121 patients who had three or more episodes of involuntary admission in the four-year period from 2007-2010, and showed that 58.5% were male, 41.5% female. Fifteen per cent were aged 22 to 30 inclusive; 50% were aged 31 to 50 inclusive; 15% aged 61 to 64 inclusive, and 20% were aged over 65.

Analysis was undertaken of rate of three or more episodes of involuntary admission per 100,000 by county of home address for the 121 patients studied. Counties Laois, Kilkenny, Carlow and Cavan had no patients who had three or more involuntary admissions in years 2007-2010. The average ratio was 2.85 and three counties, Donegal, Westmeath and Longford, had more than double that at 5.82 and above.

Table 2 above shows that patients diagnosed with Schizophrenia, Schizotypal and Delusional Disorders (57%) and patients diagnosed with Mania (20%) appear to be at greater risk of experiencing repeated involuntary readmissions. This finding is in keeping with findings in other studies.[6]

Analysis of each involuntary episode was undertaken to determine if revocation was by a mental health tribunal or by the responsible consultant psychiatrist. This shows that twenty three episodes where revoked by a mental health tribunal (four percent) and 93% were revoked by the responsible consultant psychiatrist. Twelve (two percent) were still open at time of reporting, one had been revoked as the result of a judgment in the High Court and 13 had not been renewed by the responsible consultant psychiatrist and thus expired. The Mental Health Commission's Annual Reports show that 10% of orders were revoked by the mental health tribunal in the same period.

Table 3. Length of Involuntary Episodes (n=569) for 121 Patients Studied

Length of Involuntary Episodes	% of Repeated Involuntary Episodes	Cumulative %
Ten days or less	19%	19%
11 to 21 days	35%	54%
21 to 30 days	9%	63%
31 to 90 days	21%	84%
91 to 365 days	14%	98%
More than 365 days	2%	100%

* For episodes still open, date of report was used to calculate length (28/02/2011).

Table 3 above shows that in the four-year period analysed 54% of involuntary episodes relating to the 121 patients studied lasted 21 days or less; 30% lasted between 21 and 90 days; and 16% last 91 days or more. These episodes accumulated in total 31,676 bed days in the four year period.

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Discussion of findings

There has been an overall reduction in the number of admissions to Irish psychiatric hospitals and units since commencement of the Mental Health Act 2001 in November 2006. However the use of involuntary admission orders has remained at around eight percent of all admissions in each year. Seven percent (n=569) of all involuntary orders over the four year period 2007-2010 relate to two percent (n=121) of patients who have had repeated involuntary admissions, defined in this study as three or more in a calendar year. This study shows that patients who experience repeated involuntary readmission are predominantly male (59%), often have a diagnosis of schizophrenia or schizotypal and delusional disorders (57%), or mania (20%), are in the age band 22-64 (80%) and often live in rural counties.

Repeat involuntary admissions of the 121 patients studied accounted for 31,676 bed days in the four year period studied, 2007-2010. This equates to an average of 65 bed days per year for each patient in the study. As in-patient units are acute facilities where demand for beds is always high, these figures deserve further attention. Analysis of the number of voluntary admissions in the period for these patients is also required and would assist further evaluation, as it is clear from this study that many of the patients who have repeated involuntary admission also have a significant number of voluntary admissions -31% (n=175) of the repeat episodes were initiated by an admission order to detain a voluntary patient. Potential appears to exist to further reduce the number of involuntary admissions to acute facilities if the inpatient and community care of patients who are prone to repeated involuntary readmission could be evaluated at a local level, with a view to better maintaining them in the community. The current study shows 54% of involuntary episodes relate to patients who experience repeated involuntary readmission lasting for 21 days or less. Further evaluation could usefully examine the care they received during their admission, planning for discharge and their care following discharge. A recent Irish study found risk of involuntary readmission is highest at one year following discharge and may be associated with recovery style.[11] Recovery style was measured using the Recovery Style Questionnaire (RSQ)[12] and broadly classified as 'integrative' or 'sealing over'. Integrative recovery style is characterized by acknowledgement of the illness and active attempts to cope, whereas a sealing over style is characterized by cognitive and behavioural avoidance. Persons with a sealing over style may require more support following discharge to promote insight and coping skills. If these individuals are more readily identified, resources can be targeted to provide them with such support with the aim of preventing readmissions.

Conclusions

The Mental Health Commission has had an information system (SIAT) since November 2006 that monitors the number of involuntary admissions in Ireland. SIAT data is now available as a result of the notification of involuntary admission orders by hospitals and acute units to the Mental Health Commission under the Mental Health Act 2001. SIAT data shows a significant cohort of patients in receipt of forms of inpatient or community mental health services that has resulted in them experiencing repeated episodes of involuntary readmission. These findings will be of interest to those reconfiguring mental health services as a result of the closure of institutions. Should the extent of repeated episodes of involuntary readmission be reduced, resources expended in reviewing these orders at Mental Health Tribunals could be reinvested in preventative and recovery focused services. It is acknowledged that this study has not been able to analyse the extent of repeated episodes of voluntary readmission, which may provide further information on bed usage by these patients. It is recommended that the feasibility of putting in place a national system that monitors the extent of repeated episodes of voluntary readmission be examined. Future studies would then be in a position to correlate information on voluntary readmissions with information from the Mental Health Commission's system for notification of involuntary orders and provide more details on service utilisation.

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Conflict of Interest

None.

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