Hospital Readmissions for Patients with Mental Illness in Canada

Nawaf Madi, Helen Zhao and Jerry Fang Li

In-patient hospital mental health services represent a fraction of the spectrum of services in place for those who seek treatment for a mental illness. It is often when the conditions of the illness become most severe that in-patient hospital services are sought. Hospitalization is an important means of stabilizing deteriorating psychiatric conditions, of re-establishing discontinued regimens of prescribed medication and of helping to transition individuals to outpatient and community-based services. Hospitalizations for mental illness impose a high cost in terms of healthcare expenditures (Jacobs et al. 2006) and a disruptive burden on the personal and professional lives of the individuals suffering from mental illness. Many such individuals experience a "revolving door" of multiple re-hospitalizations.

This article provides information on the patterns of one-year readmissions (for any reason) to acute care hospitals in Canada among patients with mental illness as the most responsible diagnosis in their index admission during 2002–2003. It is based on data from the Hospital Morbidity Database and Hospital Mental Health Database of the Canadian Institute for Health Information (CIHI). Readmissions were deemed if the individual had more than one episode of hospitalization during the period 2002–2003 to 2003–2004.

Readmissions to Acute Care Hospitals

In 2003–2004, 37.0% of patients with mental illness discharged from acute care hospitals were readmitted within a period of one year, compared with 27.3% of patients discharged with a non-mental illness (CIHI 2006). The findings also suggest that the probabilities of readmission were higher among older individuals and among individuals who had longer stays in hospital (Table 1).

Although other settings (such as community and primary care) may be more regularly used in the treatment of mental illness, for those whose mental illness requires hospital care, multiple hospitalizations are not uncommon. Those whose primary diagnosis was a mental illness had a higher probability (15.0%) of being readmitted more than once within a year of an index discharge than those with a non-mental illness (9.9%).

Table 1. One-year acute care hospital readmission rates for mental illness and non-mental illness, Canada, 2003–2004

	Mental Illness as Most Responsible Diagnosis (%)	Non-Mental Illness as Most Responsible Diagnosis (%)
Age group (yr)		
0–14	26.5	18.0
15–24	33.5	18.1
25–44	37.5	16.5
45–64	38.8	28.5
65+	38.7	40.7
Gender		
Female	38.3	24.9
Male	35.5	31.0
Length of stay (d)		
1–2	32.7	21.5
3–5	37.0	23.8
6–13	39.3	37.8
14 +	38.1	44.6
Overall	37.0	27.3

Sources: Discharge Abstract Database and Hospital Morbidity Database 2002–2003 and 2003–2004, CIHI.

Unplanned readmissions for mental illness to hospital are generally considered undesirable events that often indicate relapse. Although not necessarily a reflection on the quality of the hospital care, they may reflect on the effectiveness of the system of mental healthcare as a whole (Lyons et al. 1997). For instance, hospital readmission rates for mental illness have been linked to the adequacy of discharge planning and transitional services (Nelson et al. 2000), the availability and access to community and outpatient treatment services (Romansky et al. 2003), the availability of social and family support systems (Dyck et al. 2002), patient characteristics such as treatment-refractory illnesses (Dinakar et al. 2002), the adherence to prescribed medications (Lieberman et al. 2005) and the co-occurrence of substance-related disorders (Haywood et al. 1995).

Co-occurring Disorders and Dual Diagnoses

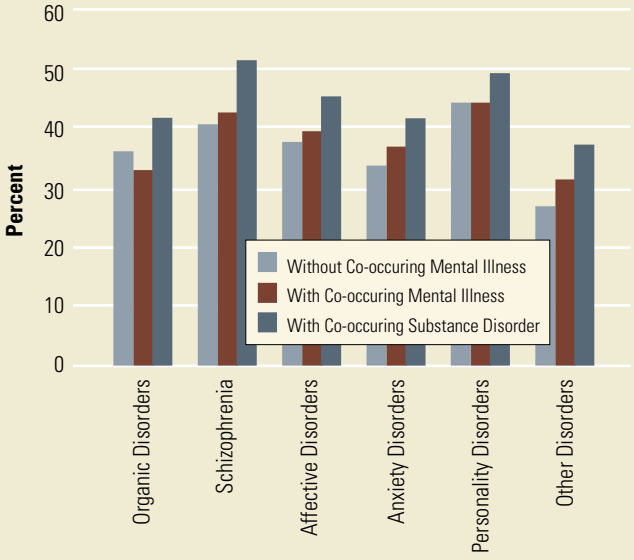
Variations in the probability of readmission were evident not only across age and length of hospital stay (see Table 1), but also across diagnosis categories. Probabilities were highest among those diagnosed with schizophrenia and personality disorders, and lowest among those with "other" disorders (which included disorders of childhood and psychological development) (Figure 1). In most diagnosis categories, individuals with a co-occurring mental illness diagnosis had higher rates of readmission than those without (see Figure 1). However, readmission rates were higher across all diagnosis categories for the subset of individuals with a dual diagnosis, that is, those with a co-occurring diagnosis of a substance-related disorder (see Figure 1).

The association between dual diagnosis and readmission to hospital appeared to be greatest for individuals who were diagnosed with schizophrenia. Over half of these individuals were readmitted within a year of index discharge. Alcohol and illicit drug use have been demonstrated to compromise the efficacy of schizophrenia treatment by degrading the impact of antipsychotic medications (Brunette et al. 2006) and have been associated with reduced adherence to regimens of medication use (Oehl et al. 2000) and rehabilitation (Coodin et al. 2004).

A comparison of individuals with and without a co-occurring substance-related disorder was conducted to explore its role in hospital readmissions. The comparison focused on individuals whose primary diagnosis was schizophrenia and controlled for age, gender and length of initial hospital stay. The analyses were based on data for individuals over the age of 14 years. The result indicated that the risk of readmission among individuals diagnosed with schizophrenia and a co-occurring substance disorder was 53.3%. This was 14.2% higher than the risk among those diagnosed with schizophrenia but no substance disorder.

These and other figures on hospital readmissions allude to the magnitude of the challenges present in the treatment of the most severe mental illnesses. With the aim of healthy social re-assimilation often foremost, seamless integration of services and comprehensive treatment approaches are needed to reduce costly re-hospitalizations. For instance, in addition to patient-specific transitional and community care after discharge from hospital, concurrent treatment of mental illness and substance-related disorders has been shown to be effective for patients whose deleterious mental health conditions might precipitate readmissions and multiple hospitalizations (Minkoff 2001). HQ

Figure 1. One-year acute care hospital readmission rates for patient with most responsible diagnosis of mental illness in index episode by condition and co-occurring disorder, Canada, 2003–2004



Note: Disorder categories are based on discharge diagnoses. Sources: Discharge Abstract Database and Hospital Morbidity Database 2002–2003 and 2003–2004, CIHI.

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About the Authors

Nawaf Madi, PhD, is the program lead for Mental Health and Addictions at CIHI. He has worked on a number of mental health and psychiatric rehabilitation initiatives in Canada and the United States.

Helen Zhao, MD, MSc, is the senior analyst for Mental Health and Addictions at CIHI. Previously, she was a pediatrician in China and a senior regulatory affairs consultant at a leading healthcare company. She has conducted epidemiology research with Statistics Canada and CIHI.

Jerry Fang Li, BSc, MSc, is the analyst for Mental Health and Addictions at CIHI, and is responsible for data analysis and management of the Hospital Mental Health Database.

Please address all correspondences to: Nawaf Madi, Canadian Institute for Health Information, 495 Richmond Rd., Suite 600, Ottawa, Ontario, Canada, K2A 4H6, nmadi@cihi.ca.