

How Acute is Acute Care in Winnipeg?

MANITOBA CENTRE FOR HEALTH POLICY AND EVALUATION



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Aside from surgery, there are many reasons why people are admitted to Winnipeg hospitals. Underscoring almost all of them is the fact that some kind of acute care is needed. In the days that follow admission, there are many reasons why patients remain in hospital. But for a good portion of them, needing acute care is not one of those reasons. In fact, a recent look at medical wards in these facilities shows only about 58% of days were acute.

Surprised? Well, you might be. It wasn't that long ago in Winnipeg that the media was filled with cries for more hospital beds. Meanwhile, it appears that many days in our city's acute care beds have been spent by people who don't need acute care.

To the Winnipeg Regional Health Authority (WRHA), such findings—among many in this report—are also of interest; hospital beds are one of their concerns: more? less? what kind? They collaborated with MCHPE on this study. A WRHA working group participated in all stages of the study, including design, evaluation of measures used, creation of criteria, interpretation of findings and review of this report.

Our focus was on patients who received care on acute medical wards (excludes surgery, obstetrics and psychiatry) at Winnipeg's six acute care hospitals in 1998/99. Among the questions asked: What proportion of admissions and days were acute? Where acute care was not needed, what level of *alternate* care was

required? What factors contributed to long stays in hospital? In addition, we looked at January 2-8, 1999, a week when the high number of patients with influenza-like illnesses put hospitals under intense pressure: What impact did this have?

The Assessment Tool

Step one was to assess the "appropriateness" of admissions and continued stays in hospital. As our "assessment tool," we used something designed specifically for this purpose: InterQual's 1999 Acute Care and Subacute Care Clinical Decision Support Criteria. *Subacute*, for those unfamiliar with the term, refers to patients whose conditions are not acute, but who are at risk of suddenly becoming worse, and so can't be discharged yet.

These criteria underwent thorough review by the physician and nursing members of the WRHA Working Group, as well as by three outside physicians. Were they suitable in the Winnipeg practise setting? Yes.

Working Group members—specifically representatives of WRHA's medicine program, personal care home (nursing home) program, and home care program—also developed a set of *Alternate Level of Care Criteria*. That is: if the patients didn't need acute care, what other care would have been more appropriate given their condition? For our study, three people—which we call *abstractors*—studied a sample of medical records at each of the six

Winnipeg acute care hospitals. Abstractors reviewed the day of admission to hospital and all subsequent days of stay, until a patient was no longer assessed as needing the services of an acute care setting. After such an assessment, an alternate level of care was assigned to any remaining days in hospital.

A total of 150 records were randomly selected for study from each of the six acute care hospitals, for a total of 900 records. Within this sample, 75 records of patients with stays longer than 30 days were again randomly selected for in-depth review of what keeps these long-stay patients in hospital.

Here is what we found in 1998/99.

Admissions

- Seventy-six per cent (76%) of medical admissions were assessed as acute (71% acute; 5% subacute). Another 19% needed the services provided in an observation unit on the day of admission (Fig. 1).
- On the day of admission, 5% of medical patients were assessed as requiring some alternate level of care. Specifically, the needs of 2% could have been met in the outpatient setting, 1% needed home care services, an additional 1% could have used the services of a long-term care facility, and the final 1% of admitted patients required palliative care (care for the terminally ill).
- Total acuteness—or *acuity*—on the day of admission to hospital ranged from 89% at the Health Sciences Centre to 55% at the Grace Hospital. In general, acuity on admission was greater at teaching hospitals (Health Sciences and St. Boniface) than at community hospitals.

Subsequent Days in Hospital

- For subsequent days in hospital—which refers to all days *after* the day of admission—total acuity was 55% (34% acute; 21% subacute) (Fig. 2). Another 3% required observation.
- Forty-two per cent (42%) of subsequent days in hospital were assessed as requiring an

alternate level of care rather than acute care. That 42% breaks down as follows: 29% required services provided in a long-term care facility (14% personal care home, 8% chronic care, 7% rehabilitation), 5% of hospital days required home care services, 3% required outpatient services, 3% required palliative care services, and the remaining 2% were assessed as requiring other services.

- Total acuity for subsequent days in hospital was about 18% higher in teaching hospitals than in community hospitals. Seven Oaks community hospital was an exception, with acuity levels close to those of the teaching hospitals.
- Among those patients assessed as acute or subacute on the day of admission, total acuity decreased over the next 29 days. By day 10, only 70% of these patients remaining in hospital were assessed as acute or subacute, and by day 30 the percentage was down to 50%.

Short-Stay Patients (1-30 days)

- Total acuity for subsequent days in hospital spent by short-stay patients was 73% (56% acute; 17% subacute).
- About 23% of subsequent days in hospital by short-stay patients required an alternate level of care. Days requiring out-of-hospital services totalled 15% (9% home care; 6% outpatient services), another 4% required a long-term care facility, 2% required a palliative care setting, and the remaining 2% were assigned to other categories.
- Total acuity for subsequent days in hospital by short-stay patients was highest at Seven Oaks Hospital (82%), followed closely by the teaching hospitals (80%). The lowest level was at Grace Hospital (42%).

Long-Stay Patients (over 30 days)

The medical records of a sample of long-stay patients were reviewed to find out what kept long-stay patients in hospital after they became non-acute.

- Patients awaiting placement (such as in a nursing home) accounted for 52% of non-acute days spent. Another 24% of non-acute days were spent by patients in rehabilitation; 9% were the result of in-hospital factors such as time spent waiting for diagnostic tests, treatments or procedures, and delays in response to consultations; 7% were spent by patients who required palliative care.

Impact of the Flu

During the week of January 2-8, 1999 the average daily number of medical inpatients with influenza-like illnesses increased 155% compared to a non-flu period.

- Total acuity for admissions during this week was 79% (76% acute; 3% subacute).
- Total acuity for patients in hospital during this week was 69% (38% acute; 31% subacute). During this week, 31% of patient-days required an alternate level of care—17% required some form of out-of-hospital services (9% home care; 8% outpatient

services), 8% required a long-term care facility, 5% required palliative care, and 1% required some other form of services.

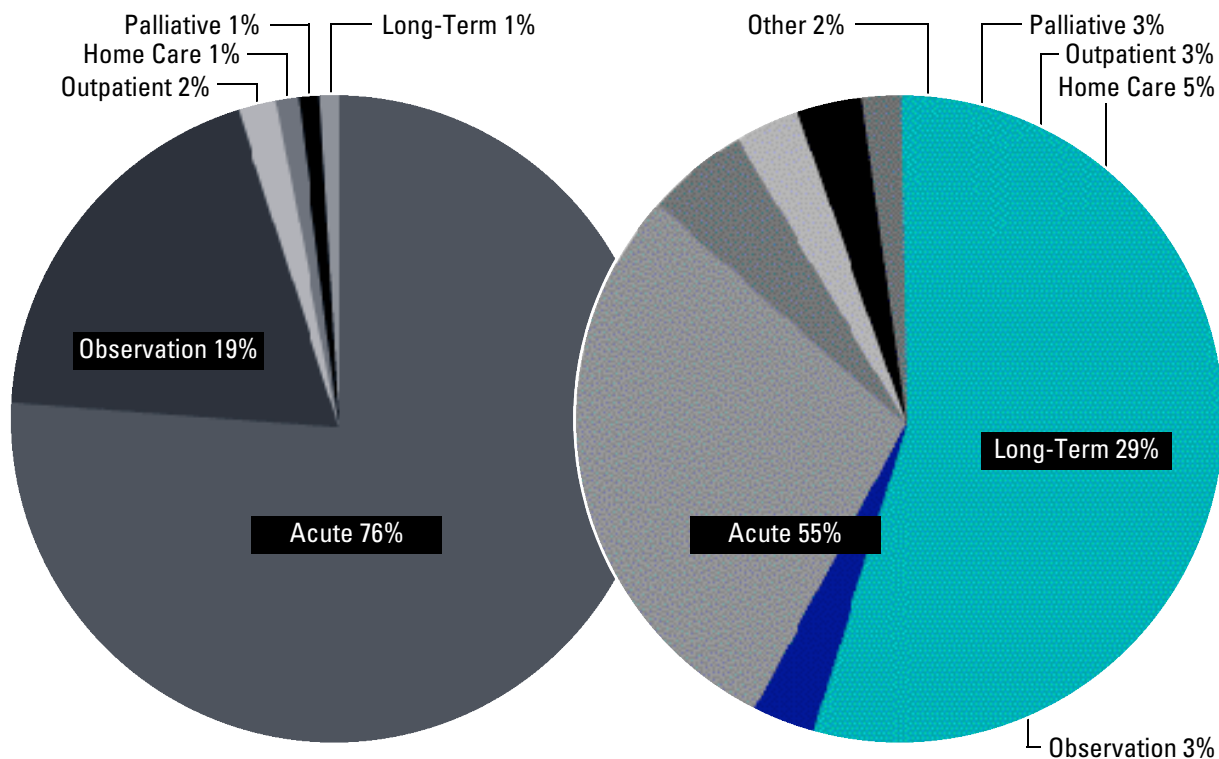
Good news/Bad news

Winnipeg hospitals appear to be very good at correctly determining when someone needs to be admitted for acute care. Total acuity on admission in 1998/99 was 76%. Another 19% were serious enough to require the services of an observation unit. Only 5% of admissions were non-acute.

But it seems there's a great deal of difference in admission practices between hospitals. For example, the percentage of acute admissions was quite high at the teaching hospitals—85 to 89%. It was much lower at the Victoria, Concordia and Grace hospitals—71% down to 55%. Highest to lowest, that's a 34% difference in acute admissions, which initially looks bad.

However, these community hospitals had a greater percentage of patients needing observation. For instance, 33% of admissions at the Grace needed observation. So *overall* 88% of

(1) Level of care at admission and (2) level of care for subsequent days in Winnipeg hospitals 1998/99



their admissions needed hospital care, only about 11% less than the highest hospital.

The reason for these admission differences we can't say. Nor can we say whether it is good or bad to have larger shares of patients in observation. MCHPE will be looking at this in an upcoming study.

Where findings are troubling is after admission: 42% of the total days on acute medical wards in Winnipeg hospitals were spent by patients who did not need acute care. While that percentage was lower at teaching hospitals, it was still quite high at 37%. That's not to say these patients didn't need some type of care—they did—just not the type of services provided in an acute care setting.

This appears to be especially true of long-stay patients—those in hospital more than 30 days. Since 1998/99, WRHA has undertaken major efforts to decrease the length of stays for long-stay patients. While they represent less than 5% of patients, they still consume more than a third of all Winnipeg hospital days. The largest proportion by far of non-acute medical days in hospital were spent by long-stay patients needing a long-term care facility. The majority of that stay was spent waiting—not only to be placed in a long-term facility, but as detailed in our report, *Long-Stay Patients in Winnipeg Acute Care Hospitals*, they often spent weeks prior to that just waiting to be approved for transfer.

And the problem isn't exclusive to long-stay patients. About 23% of days spent in hospital by short-stay patients were also non-acute. The bulk of these non-acute days were spent by patients assigned to outpatient and home care services. Again, it seems these patients spent extra days in hospital just waiting.

In the case of patients assigned as outpatients, they were kept in hospital awaiting diagnostic tests and procedures. Why keep them in hospital? Because under the current system, inpatients get diagnostic tests faster than outpatients. Therefore there is no

incentive to discharge non-acute stable patients because it means patients have to wait far longer for the tests they need. This bias in diagnostic testing needs to be changed to encourage, not discourage, earlier discharge.

Even more short-stay non-acute days were spent by patients waiting for home care to be arranged. Review of the referral process and factors contributing to delays—such as the inability to arrange home care on weekends—needs to be undertaken.

WRHA, in their efforts to free up beds, might want to consider using something like the InterQual assessment tool used in this study. But unlike this study, where acuity was assessed after discharge, it might be used to assess the acuteness of patients periodically *during* their stay. Consider the flu crisis of January 2-8, 1999: though pressure on Winnipeg hospitals was intense, practice patterns appear to have remained essentially unchanged. A usage review, say, at admission and by the 10th day of hospitalization, could ease high pressure periods and free up medical beds by helping to identify patients who would be better served by alternate levels of care.

In the end, there is good news and bad about acute care in Winnipeg. Good news: almost all patients admitted to medical wards do, in fact, need acute care; here the system appears to be working. Bad news: in the days following admission, the system has problems. A large portion of days in acute care beds—especially in community hospitals—have been used by patients who no longer needed that level of care. Good news: more beds aren't needed. Bad news: we need to make better use of the ones we've got.

Summary by RJ Currie, based on the report Acuity of Patients Hospitalized for Medical Conditions at Winnipeg Acute Care Hospitals, by Sharon Bruce, Carolyn DeCoster, Jan Trumble Waddell, Charles Burchill and Suzanne De Haney

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S101-750 Bannatyne Avenue, Winnipeg, Manitoba, Canada R3E 0W3.