



Wait Times for Priority Procedures in Canada, 2014

Technical Notes

Types of Care



Canadian Institute
for Health Information

Institut canadien
d'information sur la santé

The page features decorative wavy lines in grey and teal that flow across the top and sides, framing the central content area.

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Table of Contents

Waits for Hip Fracture Repair From Inpatient Admission.....	4
What's New?	4
Data Sources.....	4
Definitions	4
Methodology.....	5
Wait Time for Hip Fracture Repair Surgery From Emergency Department.....	7
Data Sources.....	7
Definitions	7
Methodology.....	7
Calculating the All-Canada Estimates	9
Part 1: Calculating All-Canada Percentage Meeting Benchmark	9
Part 2: Calculating All-Canada Median and 90th Percentile Waits.....	9

Waits for Hip Fracture Repair From Inpatient Admission

What's New?

The methodology used to calculate this indicator has been updated to align it with the most recent updates for the clinical administrative databases and the Canadian coding classification systems, as well as to improve data quality. New information is identified with a  icon.

Data Sources

This indicator includes patients discharged from April 1, 2013, to September 30, 2013, from acute care facilities that submit to the Discharge Abstract Database (DAD) at the Canadian Institute for Health Information (CIHI). Open-year data may not contain complete provincial/territorial submissions to CIHI. At the time of analysis, it is estimated that CIHI had received 99.5% of abstracts relative to the same time frame in 2012–2013. While overall completeness of submissions is high, there may be distinct analytical effects for provinces with slower submission time frames. Additionally, open-year data will not have been subjected to the full cycle of quality validations, at both CIHI and the submitting facilities. Hospitals may still add, delete or correct records.

Quebec wait times for hip fracture repair (HFR) are not included due to methodological differences in the data. For information on Quebec HFR wait times, see CIHI's report *Comparing Wait Times for Hip Fracture Repair in Quebec With Those in Other Jurisdictions*.

The methodology used for this report differs from that used in previous *Health Indicators* reports. As of 2009–2010, Time of Intervention is captured and allows for a more accurate estimate of wait times. For more information on the *Health Indicators* methodology, see <http://www.cihi.ca/indicators>.

Definitions

Benchmark: HFR within 48 hours (set by federal, provincial and territorial governments in December 2005)

After discussion with the provinces and recognizing the limitations of the data, this benchmark has been interpreted as follows:

$$\begin{array}{l} \text{Percentage Meeting} \\ \text{Benchmark of 48 Hours} \\ \text{From Inpatient} \\ \text{Admission} \end{array} = \frac{\begin{array}{l} \text{Number of hip fracture patients, age 18 and older, who} \\ \text{underwent HFR surgery within 48 hours of the time} \\ \text{of inpatient admission} \end{array}}{\begin{array}{l} \text{Total number of hip fracture patients, age 18 and older,} \\ \text{who received HFR surgery} \end{array}}$$

Inpatient HFR surgery wait segment/time: The number of hours the patient waited, from the time of first inpatient admission with a hip fracture (index admission) to the time the patient received HFR surgery

Note: Waits were calculated only for patients who had a surgical repair.

50th Percentile: The number of hours within which half of the patients in the sample received surgery and half were still waiting

90th Percentile: The number of hours within which 90% of the patients in the sample received surgery and 10% were still waiting

Methodology

Episode Building

The unit of analysis is an episode of acute care; patients may be admitted to one hospital and transferred to another for further treatment. Linking all admissions together into a single episode of care allows us to see the entire acute portion of the care pathway.

Linkage is done by

- Combining the first 10 digits of the Health Card Number, Gender and Province Issuing Health Care Number to create a unique identifier for each patient; and
- Identifying all relevant acute care admissions.

A transfer occurs when a patient is discharged from one acute facility and admitted to another within 24 hours.

Inclusions

- Males and females age 18 and older
- Any episode with
 - A diagnosis of hip fracture (ICD-10-CA code S72.0[^], S72.1[^] or S72.2[^]) that was coded as a main diagnosis (type M), pre-admit comorbidity (type 1) or service transfer (types W, X and Y); and

- HFR surgery that was not abandoned or done out-of hospital (CCI code 1.VA.74.^, 1.VA.53.^, 1.VC.74.^ or 1.SQ.53.^)

NEW

Note: In 2012, the CCI code 1.VA.53.PN-PN *Implantation of internal device, hip joint—robotics assisted approach [e.g. telemanipulation of tools]—dual component prosthetic device [femoral & acetabular]* was deactivated to separate the different robotic telemanipulation techniques.

Exclusions

- Invalid/unknown Health Card Number, Gender, Province Issuing Health Care Number, Admission Date/Time, Discharge Date/Time or Surgical Episode Date/Time

NEW

Note: In 2011–2012, the DAD introduced the valid value 9999 for unknown Admission/Discharge/Surgical Episode Date/Time. All abstracts with dates/times coded as 9999 are excluded.

- Potential and true duplicate discharges (as specified in *Data Quality Documentation—Current-Year Information*)
- Episodes of care where at least one hospitalization had a hip fracture coded as a post-admission (type 2) diagnosis

Time Calculations

- Time to surgery is calculated as time from initial inpatient admission for a hip fracture to start time of surgical episode for an HFR.

Wait Time for Hip Fracture Repair Surgery From Emergency Department

Data Sources

This indicator includes patients discharged from April 1, 2013, to September 30, 2013, from Ontario and Alberta emergency care facilities (based on the variable ED Visit Indicator) that submit to CIHI's National Ambulatory Care Reporting System (NACRS), as well as to the DAD, as indicated in the previous section.

Wait time registries in Newfoundland and Labrador and Prince Edward Island submitted wait time data directly to CIHI.

Definitions

Benchmark: HFR within 48 hours (set by federal, provincial and territorial governments in December 2005)

This benchmark has been interpreted as follows:

$$\begin{array}{l} \text{Percentage Meeting} \\ \text{Benchmark of 48 Hours} \\ \text{From ED Admission} \end{array} = \frac{\begin{array}{l} \text{Number of hip fracture patients, age 18 and older, who} \\ \text{underwent HFR surgery within 48 hours of the time} \\ \text{of admission to the emergency department (ED)} \end{array}}{\begin{array}{l} \text{Total number of hip fracture patients, age 18 and older,} \\ \text{who received HFR surgery} \end{array}}$$

Emergency department HFR surgery wait time: Measured in hours from the time of first registration in an ED with a hip fracture (index admission) to the time when HFR surgery was received

Note: Waits were calculated only for patients who had a surgical repair.

Methodology

The methodology for calculating ED wait times for HFR surgery links the acute care episodes defined above to ED visits in Ontario and Alberta. This ED data is not available for other provinces in NACRS.

Transfer/Episode Building: Linking Cases Across ED Visits and Acute Care

- Patients are identified in the DAD and NACRS using a personal identifier created using the first 10 digits of the Health Card Number, Gender and Province Issuing Health Care Number.

- The ED visit is considered related to the inpatient admission for hip fracture if the following conditions are met:
 - A patient is discharged from one ED and registered in another within 24 hours;
 - A patient is discharged from the ED 24 hours or less prior to the inpatient admission hour; and
 - A patient is discharged from one acute facility and admitted to another within 24 hours.

If more than one ED episode is linked to a single acute HFR episode, the ED episode with the latest Disposition Date/Time is selected.

Inclusion

- Unscheduled ED visits to an ED ambulatory care group

Exclusions

- Invalid/unknown Health Card Number, Gender, Province Issuing Health Care Number, Date/Time Patient Left ED, Disposition Date/Time, Registration Date/Time or Triage Date/Time

NEW

Note: According to the *NACRS Manual*, valid values for Date/Time Patient Left ED, Disposition Date/Time, Registration Date/Time and Triage Date/Time include 9999 for unknown date/time. All ED visits with dates/times coded as 9999 are excluded.

- Both Date/Time Patient Left ED and Disposition Date/Time are unknown/invalid
- Both Triage Date/Time and Registration Date/Time are unknown/invalid
- Potential and true duplicate ED visits (as specified in *Data Quality Documentation—Current-Year Information*)

Note: Acute care episodes were excluded if there were no matching ED visits, as the care pathway was incomplete.

Time Calculations

- Overall wait time was calculated from the time the patient was registered in the ED to the start time of the surgical repair in acute care.

Note: For wait time calculations involving multi-hospital stays, the total wait time is attributed to the province where the surgery was performed.

Calculating the All-Canada Estimates

Part 1: Calculating All-Canada Percentage Meeting Benchmark

The national percentage meeting benchmark estimates were calculated as follows:

$$\text{National Percentage Meeting Benchmark} = \frac{\text{Total patients meeting benchmark for each province}^*}{\text{Total procedures performed}}$$

Note

* Estimated by provincially submitted volumes and percentage meeting benchmark.

Part 2: Calculating All-Canada Median and 90th Percentile Waits

The national estimate for the 50th and 90th percentiles was calculated using a weighted average of provincial submissions. Weights were calculated using provincially submitted surgical volumes.

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Cette publication est aussi disponible en français sous le titre *Les temps d'attente pour les interventions prioritaires au Canada 2014 : notes techniques*.

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