Potentially Inappropriate Use of Antipsychotics in Long-Term Care

Name	Potentially Inappropriate Use of Antipsychotics in Long-Term Care
Short/Other Names	Percentage of Residents on Antipsychotics Without a Diagnosis of Psychosis
Description	This indicator looks at how many long-term care residents are taking antipsychotic drugs without a diagnosis of psychosis. These drugs are sometimes used to manage behaviours in residents who have dementia. Careful monitoring is required, as such use raises concerns about safety and quality of care.
Interpretation	Lower is better; it means that a lower percentage of long-term care residents received antipsychotic medication without a diagnosis of psychosis.
HSP Framework Dimension	Health System Outputs: Appropriate and effective
Areas of Need	Living With Illness, Disability or Reduced Function
Geographic Coverage	Newfoundland and Labrador, New Brunswick, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon
Reporting Level /Disaggregation	Province/Territory, Region, Facility, Corporation, Sector (residential and hospital-based continuing care)
Indicator Results	Accessing Indicator Results on Your Health System: In Depth (PDF)

Identifying Information

Name	Potentially Inappropriate Use of Antipsychotics in Long-Term Care
Short/Other Names	Percentage of Residents on Antipsychotics Without a Diagnosis of Psychosis

Indicator Description and Calculation

Description	This indicator looks at how many long-term care residents are taking antipsychotic drugs without a diagnosis of psychosis. These drugs are sometimes used to manage behaviours in residents who have dementia. Careful monitoring is required, as such use raises concerns about safety and quality of care.
Calculation: Description	This indicator examines the percentage of residents on antipsychotics without a diagnosis of psychosis. It is calculated by dividing the number of residents who received antipsychotic medication by the number of all residents with valid assessments (excluding those with schizophrenia, Huntington's chorea, delusions and hallucinations, and end-of-life residents) within the applicable time period. Unit of Analysis: Resident
Calculation: Geographic Assignment	Place of service
Calculation: Type of Measurement	Percentage or proportion
Calculation: Adjustment Applied	The following covariates are used in risk adjustment: Individual Covariates: Motor agitation; moderate/impaired decision-making problem; long-term memory problem; Cognitive Performance Scale (CPS); combination Alzheimer's disease/other dementia; age younger than 65 Facility-Level Stratification: Case Mix Index (CMI)
Calculation: Method of Adjustment	Stratification, Direct Standardization, Indirect Standardization; **Standard Population:** 3,000 facilities in 6 U.S. states and 92 residential care facilities and continuing care hospitals in Ontario and Nova Scotia

Denominator	**Description:**
	Residents with valid assessments
	
	Inclusions:
	
	1. Residents with valid assessments. To be considered valid, the target assessment must
	   a. Be the latest assessment in the quarter
	   b. Be carried out more than 92 days after the Admission Date
	   c. Not be an Admission Full Assessment
	
	Exclusions:
	
	1. Residents who are end-stage disease (J5c = 1) or receiving hospice care (P1ao = 1)
	2. Residents who have a diagnosis of schizophrenia (I1ii = 1) or Huntington's chorea (I1x = 1), or those experiencing hallucinations (J1i = 1) or delusions (J1e = 1)

Description:
Residents who received antipsychotic medication on their target assessment

Inclusions:

Numerator

1. Residents with valid assessments. To be considered valid, the target assessment must
    a. Be the latest assessment in the quarter
    b. Be carried out more than 92 days after the Admission Date
    c. Not be an Admission Full Assessment
2. Residents who received antipsychotic medication on one or more days in the week before their target assessment (O4a = 1, 2, 3, 4, 5, 6 or 7)

Exclusions:

1. Residents who are end-stage disease (J5c = 1) or receiving hospice care (P1ao = 1)
2. Residents who have a diagnosis of schizophrenia (I1ii = 1) or Huntington's chorea (I1x = 1), or those experiencing hallucinations (J1i = 1) or delusions (J1e = 1)

Background, Interpretation and Benchmarks

Rationale	CCRS quality indicators were developed by interRAI (www.interrai.org), an international research network, to provide organizations with measures of quality across key domains, including physical and cognitive function, safety and quality of life. Each indicator is adjusted for resident characteristics that are related to the outcome and independent of quality of care. The indicators can be used by quality leaders to drive continuous improvement efforts. They are also used to communicate with key stakeholders through report cards and accountability agreements.
Interpretation	Lower is better; it means that a lower percentage of long-term care residents received antipsychotic medication without a diagnosis of psychosis.
HSP Framework Dimension	Health System Outputs: Appropriate and effective
Areas of Need	Living With Illness, Disability or Reduced Function
Targets /Benchmarks	CIHI: None Health Quality Ontario (external): 19% for long-term care

References

Canadian Institute for Health Information. *CCRS Quality Indicators Risk Adjustment Methodology (PDF)*. 2013.

Canadian Institute for Health Information. *When a Nursing Home Is Home: How Do Canadian Nursing Homes Measure Up on Quality? (PDF)* 2013.

Health Quality Ontario. *Long-Term Care Benchmarking Resource Guide (PDF)*. 2013.

Health Quality Ontario. *Results From Health Quality Ontario's Benchmark Setting for Long-Term Care Indicators (PDF)*. 2017.

Health Quality Ontario. Health Quality Ontario Indicator Library. Accessed October 4, 2017.

Hirdes JP, Mitchell L, Maxwell CJ, White N. Beyond the "iron lungs of gerontology": Using evidence to shape the future of nursing homes in Canada . *Canadian Journal on Aging*. 2011.

Hirdes JP, Poss JW, Caldarelli H, et al. An evaluation of data quality in Canada's Continuing Care Reporting System (CCRS): Secondary analyses of Ontario data submitted between 1996 and 2011. *BMC Medical Informatics and Decision Making*. 2013.

Jones RN, Hirdes JP, Poss JW, et al. Adjustment of nursing home quality indicators. *BMC Health Services Research*. 2010.

Availability of Data Sources and Results

Data Sources	CCRS
Available Data Years	**Type of Year:** Fiscal **First Available Year:** 2010 **Last Available Year:** 2019
Geographic Coverage	Newfoundland and Labrador, New Brunswick, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon
Reporting Level /Disaggregation	Province/Territory, Region, Facility, Corporation, Sector (residential and hospital-based continuing care)

Result Updates

Update Frequency	Every year
Indicator Results	**Web Tool:** Your Health System: In Depth **URL:** Accessing Indicator Results on Your Health System: In Depth (PDF)
Updates	Residents who have been coded as experiencing delusions have been excluded from the calculation of the numerator and denominator for this indicator.

Quality Statement

This measure uses data collected by long-term care facilities using the Resident Assessment Instrument–Minimum Data Set 2.0 (RAI-MDS 2.0) and submitted to the Continuing Care Reporting System (CCRS). Users should be cautious when interpreting results from CCRS because the CCRS frame does not currently contain all facilities in all provinces and territories that make up the CCRS population of interest; thus the population covered by CCRS may not be representative of all continuing care facilities across Canada.

Some jurisdictions have implemented or are in the process of implementing the new interRAI Long-Term Care Facilities (LTCF), the next-generation clinical assessment instrument for long-term care. Data collected using this assessment instrument will be submitted to the Integrated interRAI Reporting System (IRRS). Results for these jurisdictions as of the fiscal year of interRAI LTCF implementation are not available at this time. Historical results based on the RAI-MDS 2.0 are available.

Caveats and Limitations

Coverage is incomplete for some fiscal years in the following jurisdictions:

- Saskatchewan (implemented and started collecting data using the interRAI LTCF in 2019–2020)
- Manitoba (includes all facilities in Winnipeg Regional Health Authority only)
- New Brunswick (implemented and started collecting data using the interRAI LTCF in 2017–2018)
- Nova Scotia

Indicators are risk-adjusted to control for potential confounding factors.

Trending Issues

Since 2003, the number of facilities and jurisdictions submitting to CCRS has been increasing. With the addition of new jurisdictions, it is possible that differences in care practices may affect indicator rates; however, changes to the underlying population would be controlled for using risk adjustment. There is also evidence to suggest that trending and use of data from the entire time series is not an issue and that data quality is consistent over time (Hirdes et al., 2013).

The CCRS quality indicators use 4 rolling quarters of data for calculations in order to have a sufficient number of assessments for risk adjustment. Since residents are assessed on a quarterly basis, each resident can contribute to the indicator up to 4 times.

Comments

Data for this indicator is also available in the Quick Stats tool, which includes results in both the residential and hospital-based continuing care sectors: https://www.cihi.ca/en/quick-stats.

Indicator results are also available on

- Your Health System: In Brief (http://yourhealthsystem.cihi.ca/inbrief/?lang=en#!/indicators/008/potentially-inappropriate-medication-in-long-term-care)