

Ontario Stroke Evaluation Report 2018

Stroke Care and Outcomes in Complex Continuing Care and Long-Term Care

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Background

Ontario is the most populous province in Canada with over 13 million people with health insurance that allows access to institutional-based care.¹

In Ontario, stroke patients follow one of six trajectories of care after an acute stroke or transient ischemic attack. The least common post-stroke trajectory involves direct transfer to complex continuing care (CCC) or long-term care (LTC) from acute inpatient care. An understanding of the complexity of the care and rehabilitation needs of an older stroke population living in CCC or LTC is needed to ensure optimal functional recovery and quality of life.^{2,3}

This report aimed to address this knowledge gap by describing: 1) the sociodemographic characteristics; 2) burden of care; 3) the nature and extent of rehabilitation therapy available; 4) provision of selected stroke best practices; 5) journeys to CCC and LTC and 6) outcomes for stroke survivors in these settings.

Data Sources and Methods

Data Sources:

- Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), Continuing Care Reporting System (CCRS) CCC and LTC database and National Rehabilitation Reporting System (NRS) database
- Registered Persons Database (RPDB)
- Ontario Drug Benefit (ODB) claims database
- Statistics Canada 2006 Census.

Cohort Creation:

The stroke cohort was created by linking stroke survivors discharged alive from Ontario acute hospitals (CIHI-DAD) between April 1, 2010 and March 31, 2015 and admitted to CCC or LTC within 180 days of the acute hospitalization discharge using an encrypted health card number. Stroke survivors were excluded if their length of stay (LOS) was less than 14 days.

Analyses:

Sociodemographics, clinical characteristics, burden of care, rehabilitation access and therapy time, stroke best practices and outcomes were calculated based on the components and selected scales included in the Resident Assessment Instrument-Minimum Data Set 2.0 (RAI-MDS 2.0) in the CCRS-CCC and LTC databases. Specifically, activities of daily living, cognition, depression, communication, social functioning, pain, medication use, falls and discharge disposition were included. Proportions or means/medians were calculated and results were presented at the provincial level by year.

Selected Report Exhibits

Ontario Stroke Evaluation Report 2018 Stroke Care and Outcomes in Complex Continuing Care and Long-Term Care



Selected Exhibits – World Stroke Congress 2018

Report Infographic - 2015 Highlights

CARE AND OUTCOMES OF STROKE SURVIVORS admitted to **complex continuing care** and **long-term care** in Ontario in 2015

About 1 in 5 stroke survivors are admitted to **complex continuing care (CCC)** or **long-term care (LTC)** after an acute stroke. Most don't return to the community. Access to more intensive rehabilitation might improve that outcome and optimize quality of life.



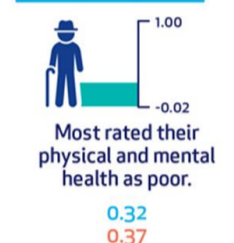
Characteristics of these stroke survivors



Their access to rehabilitation



Their quality of life



Key Recommendations

- ✓ Resource allocation and models of care for rehabilitation therapy and nursing restorative care should be reviewed to inform the appropriate delivery model for CCC and LTC.
- ✓ Local Health Integration Networks, Regional Stroke Networks and local stakeholders should continue efforts to increase access to inpatient rehabilitation for survivors of severe strokes and strengthen continuity of rehabilitation care through transition processes.
- ✓ Regional Stroke Networks and CCC/ LTC facilities should leverage existing stroke care resources to support ongoing training in secondary stroke prevention, fall prevention, pain management and highly prevalent post-stroke complications.
- ✓ A standardized measurement and reporting framework for rehabilitation across settings should be considered.

Key Conclusions

- ✓ Stroke survivors in CCC and LTC receive minimal rehabilitation. In CCC, this primarily consists of Physiotherapy (PT) and Occupational Therapy (OT). In LTC, this is primarily PT.
- ✓ Stroke survivors receiving inpatient rehabilitation prior to transition to CCC or LTC have a higher chance of discharge to the community.
- ✓ Screening of mood, cognitive functioning and assessment of pain were completed for all stroke survivors.
- ✓ Further research is needed to evaluate:
 - factors impacting transitions/discharges across the continuum of care, as well as readmissions
 - LTC role in stroke recovery and care
 - impact of the utilization of best practice resources in LTC
 - stroke care in LTC beyond the 90-day time frame
 - impacts of rehabilitation service levels in LTC.

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<https://www.ices.on.ca/Publications/Atlases-and-Reports/2018/Ontario-Stroke-Report-2018>



1. Statistics Canada. 2017. Ontario [Province] and Canada [Country] (table). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017. <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E> (accessed October 3, 2018).

2. Hall R, Khan F, O'Callaghan C et al. *Ontario Stroke Evaluation Report 2012: Prescribing System Solutions to Improve Stroke Outcomes*. Toronto, ON: Institute for Clinical Evaluative Sciences; 2012. Accessed November 15, 2017 at <https://www.ices.on.ca/~media/Files/Atlases-Reports/2012/Ontario-stroke-evaluation-report/Full-Report.ashx>

3. IBM Business Consulting Services. Ontario Stroke Strategy Monitoring and Evaluation Initiative: Final Report. April 1, 2005 [Unpublished].