ONTARIO STROKE REPORT CARD, 2011/12

Indicator No.	Care Continuum Category	Indicator[1]	Ontario FY 2011/12 (2010/11)	Variance Across LHINs (Min–Max)	Provincial Benchmark[2]	High Performer[3]	
						Sub-LHIN/Facility	LHIN
1	Public awareness and patient education	Proportion of patients who arrived at ED less than 3.5 hours from stroke symptom onset.	– (42.3%)	–	– (52.0%)	Elgin Sub-LHIN	2, 11
2	Prevention of stroke	Annual age- and sex-adjusted inpatient admission rate for stroke/TIA (per 1,000 population).	1.3 (1.3)	1.1–1.9	1.1 (1.1)	Ottawa Centre Sub-LHIN	6, 9, 11
3	Prevention of stroke	Risk-adjusted stroke/TIA mortality rate at 30 days (per 100 patients).	12.2 (14.3)	10.1–15.9	12.2 (14.3)	Humber River Regional Hospital – Finch	7
4	Prevention of stroke	Proportion of ischemic stroke/TIA patients with atrial fibrillation prescribed or recommended anticoagulant therapy on discharge from acute care.	– (72.1%)	–	– (86.0%)	Queensway-Carleton Hospital	None
5	Prevention of stroke	Proportion of ischemic stroke patients without atrial fibrillation who received carotid imaging prior to hospital discharge.	– (78.7%)	–	– (92.8%)	Markham Stouffville Hospital	5
6	Acute stroke management	Proportion of suspected stroke/TIA patients who received a brain CT/MRI scan within 24 hours of arrival at ED.	– (89.6%)	–	– (97.7%)	Cambridge Memorial Hospital	5, 7
7	Acute stroke management	Proportion of ischemic stroke patients who arrived at ED less than 3.5 hours from symptom onset and received acute thrombolytic therapy (tPA) (excluding those with contraindications).	– (32.4%)	–	– (61.2%)	Trillium Health Centre	None
8	Acute stroke management	Proportion of stroke/TIA patients treated on a stroke unit at any time during their inpatient stay.	– (38.3%)	–	– (87.5%)	North Bay General Hospital	None
9	Acute stroke management	Proportion of stroke (excluding TIA) patients with a documented initial dysphagia screening performed during admission to acute care.	– (64.8%)	–	– (83.7%)	Thunder Bay Regional Health Sciences Centre	14
10	Acute stroke management	Proportion of ALC days to total length of stay in acute care.	27.3% (32.5%)	19.7–39.1%	14.6% (14.0%)	Grey Bruce Health Services – Owen Sound	None
11	Acute stroke management	Proportion of acute stroke (excluding TIA) patients discharged from acute care and admitted to inpatient rehabilitation.	31.5% (30.7%)	24.0–39.1%	42.6% (42.3%)	Barrie and Area Sub-LHIN	14
12	Stroke rehabilitation	Proportion of stroke (excluding TIA) patients discharged from acute care who received a referral for outpatient rehabilitation.	– (5.9%)	–	– (12.1%)	Burlington Sub-LHIN	14, 13
13	Stroke rehabilitation	Median number of days between stroke (excluding TIA) onset and admission to stroke inpatient rehabilitation (RCG-1 and RCG-2).	10.0 (10.0)	7.0–15.0	6.5 (7.0)	Northumberland Hills Hospital	9, 12
14	Stroke rehabilitation	Rehabilitation therapy staff/bed ratio for inpatient stroke rehabilitation.	–	–	–	–	–
15	Stroke rehabilitation	Proportion of ALC days to total length of stay in inpatient rehabilitation (active + ALC) (RCG-1).	5.2% (6.3%)	0.0–10.5%	5.2% (6.3%)	William Osler Health System – Civic	5
16	Stroke rehabilitation	Median FIM efficiency for moderate stroke in inpatient rehabilitation (RCG-1).	0.8 (0.8)	0.5–1.1	1.1 (1.1)	Royal Victoria Regional Health Centre	9, 12
17	Stroke rehabilitation	Mean number of CCAC visits provided to stroke/TIA patients in 2010/11 and 2011/12.	5.7 (6.1)	4.0–10.9	7.9 (6.8)	South East CCAC	10, 12
18	Stroke rehabilitation	Proportion of patients admitted to inpatient rehabilitation with severe stroke (RPG = 1100 or 1110) (RCG-1).	31.6% (31.2%)	14.1–41.4%	48.6% (46.9%)	Brant Community Healthcare System – Brantford	None
19	Reintegration	Proportion of stroke/TIA patients discharged from acute care to LTC/CCC (excluding patients originating from LTC/CCC).	9.1% (9.8%)	4.5–13.1%	3.7% (4.7%)	Urban Guelph Sub-LHIN	None
20	Reintegration	Age- and sex-adjusted readmission rate at 30 days for patients with stroke/TIA for all diagnoses (per 100 patients).	8.0 (8.0)	7.0–9.0	8.0 (8.0)	Mackenzie Health – Mackenzie Richmond Hill Hospital	3, 11

[1] Facility-based analysis (excluding indicators 1, 2, 11, 12 and 19) for patients aged 18–108. Indicators 2, 3, 10, 11 and 13–20 are based on CIHI data. Data from the 2010/11 report card are displayed in brackets. Low rates are desired for indicators 2, 3, 10, 13, 15, 19 and 20.

[2] Provincial benchmarks were calculated using the ABC methodology and facility/sub-LHIN data, except for indicators 3, 15 and 20 where the provincial rate was used; the 2010/11 benchmarks are displayed in brackets. For the benchmarking methodology, see Weissman et al. *Journal of Evaluation in Clinical Practice* 1999; 5(3):269–81.

[3] High-performing acute care facilities include only high-volume institutions (those treating more than 100 strokes per year). High-performing rehabilitation facilities include sites with moderate to high volumes (those admitting more than 38 stroke patients per year). For indicators 1, 4–9 and 12, high performers from the 2010/11 report card are presented.

Hospital Service Accountability Agreement indicators, 2010/11

– Data not available

Local Health Integration Networks (LHINs)

1 Erie St. Clair	4 Hamilton Niagara Haldimand Brant	7 Toronto Central	10 South East	13 North East
2 South West	5 Central West	8 Central	11 Champlain	14 North West
3 Waterloo Wellington	6 Mississauga Halton	9 Central East	12 North Simcoe Muskoka	

Canadian Stroke Network
Réseau canadien contre les accidents cérébrovasculaires
ontario stroke network
Advancing the Ontario Stroke System
ICES Institute for Clinical Evaluative Sciences

ONTARIO STROKE REPORT CARD, 2011/12:
CENTRAL EAST LOCAL HEALTH INTEGRATION NETWORK

Poor performance[1] | Acceptable performance[2] | Exemplary performance[3] | Benchmark not available[4]

Indicator No.	Care Continuum Category	Indicator[5]	LHIN FY 2011/12 (2010/11)	Variance Within LHIN (Min–Max)	Provincial Benchmark[6]	High Performer[7]	
						Sub-LHIN/Facility	LHIN
1	Public awareness and patient education	Proportion of patients who arrived at ED less than 3.5 hours from stroke symptom onset.	– (39.0%)	–	– (52.0%)	Elgin Sub-LHIN	2, 11
2	Prevention of stroke	Annual age- and sex-adjusted inpatient admission rate for stroke/TIA (per 1,000 population).	1.1 (1.2)	1.1–1.3	1.1 (1.1)	Ottawa Centre Sub-LHIN	6, 9, 11
3	Prevention of stroke	Risk-adjusted stroke/TIA mortality rate at 30 days (per 100 patients).	11.6 (13.8)	0.0–23.2	12.2 (14.3)	Humber River Regional Hospital – Finch	7
4	Prevention of stroke	Proportion of ischemic stroke/TIA patients with atrial fibrillation prescribed or recommended anticoagulant therapy on discharge from acute care.	– (75.4%)	–	– (86.0%)	Queensway-Carleton Hospital	None
5	Prevention of stroke	Proportion of ischemic stroke patients without atrial fibrillation who received carotid imaging prior to hospital discharge.	– (73.1%)	–	– (92.8%)	Markham Stouffville Hospital	5
6	Acute stroke management	Proportion of suspected stroke/TIA patients who received a brain CT/MRI within 24 hours of arrival at ED.	– (88.2%)	–	– (97.7%)	Cambridge Memorial Hospital	5, 7
7	Acute stroke management	Proportion of ischemic stroke patients who arrived at ED less than 3.5 hours from symptom onset and received acute thrombolytic therapy (tPA) (excluding those with contraindications).	– (36.8%)	–	– (61.2%)	Trillium Health Centre	None
8	Acute stroke management	Proportion of stroke/TIA patients treated on a stroke unit at any time during their inpatient stay.	– (28.4%)	–	– (87.5%)	North Bay General Hospital	None
9	Acute stroke management	Proportion of stroke (excluding TIA) patients with a documented initial dysphagia screening performed during admission to acute care.	– (68.3%)	–	– (83.7%)	Thunder Bay Regional Health Sciences Centre	14
10	Acute stroke management	Proportion of ALC days to total length of stay in acute care.	23.5% (32.5%)	0.0–45.2%	14.6% (14.0%)	Grey Bruce Health Services – Owen Sound	None
11	Acute stroke management	Proportion of acute stroke (excluding TIA) patients discharged from acute care and admitted to inpatient rehabilitation.	35.9% (33.4%)	25.2–44.6%	42.6% (42.3%)	Barrie and Area Sub-LHIN	14
12	Stroke rehabilitation	Proportion of stroke (excluding TIA) patients discharged from acute care who received a referral for outpatient rehabilitation.	– (4.7%)	–	– (12.1%)	Burlington Sub-LHIN	14, 13
13	Stroke rehabilitation	Median number of days between stroke (excluding TIA) onset and admission to stroke inpatient rehabilitation (RCG-1 and RCG-2).	7.0 (7.0)	5.0–15.0	6.5 (7.0)	Northumberland Hills Hospital	9, 12
14	Stroke rehabilitation	Rehabilitation therapy staff/bed ratio for inpatient stroke rehabilitation.	–	–	–	–	–
15	Stroke rehabilitation	Proportion of ALC days to total length of stay in inpatient rehabilitation (Active + ALC) (RCG-1).	3.3% (3.7%)	0.0–6.8%	5.2% (6.3%)	William Osler Health System – Civic	5
16	Stroke rehabilitation	Median FIM efficiency for moderate stroke in inpatient rehabilitation (RCG-1).	1.1 (1.1)	0.7–1.7	1.1 (1.1)	Royal Victoria Regional Health Centre	9, 12
17	Stroke rehabilitation	Mean number of CCAC visits provided to stroke/TIA patients in 2010/11 and 2011/12.	5.3 (6.4)	n/a	7.9 (6.8)	South East CCAC	10, 12
18	Stroke rehabilitation	Proportion of patients admitted to inpatient rehabilitation with severe strokes (RPG = 1100 or 1110) (RCG-1).	38.9% (36.1%)	17.9–57.1%	48.6% (46.9%)	Brant Community Healthcare System – Brantford	None
19	Reintegration	Proportion of stroke/TIA patients discharged from acute care to LTC/CCC (excluding patients originating from LTC/CCC).	7.6% (8.7%)	4.6–10.1%	3.7% (4.7%)	Urban Guelph Sub-LHIN	None
20	Reintegration	Age- and sex-adjusted readmission rate at 30 days for patients with stroke/TIA for all diagnoses (per 100 patients).	8.4 (7.5)	0.0–23.3	8.0 (8.0)	Mackenzie Health – Mackenzie Richmond Hill Hospital	3, 11

[1] Performance below the 50th percentile.

[2] Performance at or above the 50th percentile and greater than 5% absolute/relative difference from the benchmark.

[3] Benchmark achieved or performance within 5% absolute/relative difference from the benchmark.

[4] Data not available or benchmark under development.

[5] Facility-based analysis (excluding indicators 1, 2, 11, 12 and 19) for patients aged 18–108. Indicators 2, 3, 10, 11 and 13–20 are based on CIHI data. Data from the 2010/11 report card are displayed in brackets. For indicators 1, 4–9 and 12, performance ratings from the 2010/11 report card are presented. Low rates are desired for indicators 2, 3, 10, 13, 15, 19 and 20.

[6] Provincial benchmarks were calculated using the ABC methodology and facility/sub-LHIN data, except for indicators 3, 15 and 20 where the provincial rate was used; 2010/11 benchmarks are displayed in brackets. For the benchmarking methodology, see Weissman et al. *Journal of Evaluation in Clinical Practice* 1999; 5(3):269-81.

[7] High-performing acute care facilities include only high-volume institutions (those treating more than 100 strokes per year). High-performing rehabilitation facilities include sites with moderate to high volumes (those admitting more than 38 stroke patients per year). For indicators 1, 4–9 and 12, high performers from the 2010/11 report card are presented.

Hospital Service Accountability Agreement indicators, 2010/11

– Data not available n/a = Not applicable

Canadian Stroke Network
Réseau canadien contre les accidents cérébrovasculaires
ontario stroke network
Advancing the Ontario Stroke System
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ONTARIO STROKE REPORT CARD, 2011/12:
SECONDARY PREVENTION CLINICS

CENTRAL EAST LOCAL HEALTH INTEGRATION NETWORK

Indicator No.	Care Continuum Category	Indicator[1]	Central East LHIN	Ontario	LHIN Variance[2] (Min–Max)	Ontario Variance[3] (Min–Max)	High Performer[4]	
							Facility	LHIN
1	Prevention of stroke	Proportion of ED visits for a suspected or confirmed stroke/TIA where the patient was discharged and had an initial SPC visit.	**16.6%**	21.3%	**1.5–36.9%**	4.7–29.7%	Queensway-Carleton Hospital	14, 11
2	Prevention of stroke	Proportion of emergent and urgent SPC visits where the patient was seen within recommended guidelines (24 hours and 72 hours, respectively).	**13.8%**	16.0%	**0.0–17.9%**	3.5–27.9%	Niagara Health System – Greater Niagara General	4, 13
3	Prevention of stroke	Proportion of SPC visits where ischemic stroke/TIA patients had vascular imaging ordered or completed prior to or during the visit.	**98.0%**	92.7%	**93.6–99.4%**	85.1–99.5%	Brant Community Healthcare System – Willet Grey Bruce Health Services – Owen Sound	11, 9
4	Prevention of stroke	Proportion of SPC visits where ischemic stroke/TIA patients with atrial fibrillation were prescribed and/or recommended anticoagulant therapy prior to or during the visit.	**89.3%**	80.1%	**86.7–92.3%**	57.4–89.3%	Toronto Western Hospital	9, 7
5	Prevention of stroke	Proportion of initial SPC visits where cognitive screening was performed.	**2.5%**	10.4%	**0.0–10.5%**	0.2–46.6%	Pembroke Regional Hospital	6, 7

[1] Facility-based analysis for patients aged 18–108. High rates are desired for all indicators.

[2] Variance within the LHIN (i.e., across facilities).

[3] Variance across the 14 LHINs.

[4] Restricted to facilities/LHINs with at least 50 eligible patients for each indicator.

Local Health Integration Networks (LHINs)

1 Erie St. Clair	4 Hamilton Niagara Haldimand Brant	7 Toronto Central	10 South East	13 North East
2 South West	5 Central West	8 Central	11 Champlain	14 North West
3 Waterloo Wellington	6 Mississauga Halton	9 Central East	12 North Simcoe Muskoka	

South East Toronto, North & East GTA, & Central East Stroke Networks
INTERPRETATION OF CENTRAL EAST LHIN REPORT CARD

Areas of progress and related initiatives/projects

Equity of Care and Access to Services

- Intentions and commitments to best practice in stroke care as defined at the Mosaic of Stroke Event Nov 22/11
- Ongoing dialogue on how best support a system approach to improving patient outcomes within the CE LHIN planning environment
- Continued representation on Vascular Health Strategic Aim Coalition

System Integration and Efficiency

- Positive trending on a number of indicators due to the investments in stroke care made by the Central East LHIN
- Increased uptake of Canadian Stroke Best Practice Guidelines re: 1) access to stroke unit care 2) diagnostics; proportion of suspected stroke/TIA patients who received a brain CT/MRI within 24 hours of arrival at ED 3) medical management; prescribed or recommended anticoagulant therapy 4) documented initial dysphagia screening to utilize limited SLP resources for assessment

Effectiveness

- Creation of Ontario and LHIN Stroke Report Cards to provide a snapshot of stroke care in the Central East LHIN
- Utilization of LHIN Stroke Report Cards to increase awareness of current state, inform discussions for system improvement and initiate change

Gaps/Areas for Improvement	*Current or planned activities to address gaps/areas for improvement*
Equity of Care and Access to Services A standard of care and best practices across the care continuum to drive access to quality care.	**Support implementation of provincial rehab expert panel recommendations by 1) increasing awareness 2) maintaining momentum and continued engagement of planning groups 3) system re-design** **Expected outcomes of expert panel are:** • **Reduced ALC days by appropriate use of Rehab and CCC resources** • **Improved uptake and adherence to evidence-based best practices** • **Standardized admission and discharge criteria, assessment tools and transfer protocols** • **Standardized measurement, evaluation and accountabilities** **(Indicators 2,3,4,5,6,8,9,10,11,12,13,14,15,16,17,18,19,20)**
System Integration and Efficiency Optimal utilization of rehabilitation (inpatient and outpatient) services to facilitate patient flow and improve patient and system outcomes.	**Acute** **Investigation of re-organization to ensure critical mass (~200+ stroke patients) Geographically defined stroke unit with specialized, dedicated interprofessional team Review of processes of care to expedite earlier transfer to rehab – target by day 5-7 (eg AlphaFIM™ completion day 3-5)** **(Indicators 2,3,4,5,6,8,9,10,11,12,13,18,19,20)** **Rehab** **Increased access to timely and appropriate rehab** • **Increased intensity (3 hrs/pt/day – PT, OT, SLP)** • **More patients with severe stroke accessing high intensity inpatient rehab (based on AlphaFIM™ scores)** • **Outpatient programming for patients with mild stroke to access within 2 weeks of discharged from acute care** **(Indicators 11,12,13,14,15,16,18,19,20)** **Transitions** **Identify opportunities to engage in Transition Improvement for Continuity of Care's (TICC) core projects (Stroke Passport, Knowing Each Others Work, Peer Support) that will create a sustainable foundation for a system that enables more seamless, person centered and hopeful care for people living with stroke and their family/friend caregivers, through strengthening relationships, communication and processes across the continuum.** **(Indicators 3, 20)**
Effectiveness An evaluation framework that supports monitoring changes within the system	• **Develop Evaluation Framework- identify data sources to support collection** • **Support implementation of CIHI Special Project 340 (mandated April 2012)** • **Build awareness and monitor outcomes of TICC pilot projects**

Opportunities for LHIN Collaboration

Support systems approach to improve patient outcomes through:

- Leadership and direction from Central East LHIN to inform system wide planning for improved stroke care quality across the continuum.
- Build on current momentum of Stroke Flow and Mosaic of Stroke to improve access and system efficiency.
- Continued representation on the Vascular Health Strategic Aim Coalition and representation on other appropriate CE LHIN planning tables as determined by the Central East LHIN.
- Inform the development of the next iteration of the Central East LHIN Integrated Health Services Plan.
- Coordinate efforts with the Central East LHIN in the implementation of the Provincial Rehab Expert Panel recommendations
- Building on e-stroke rehab referral system to integrate stroke best practices into Central East LHIN Resource Matching and Referral System.
- Explore opportunities to advance the Ontario Integrated Vascular Health Strategy (Blueprint to be released in spring 2012).

South East Toronto Stroke Network
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collaboration • education • innovation

CENTRAL EAST STROKE NETWORK