Nova Scotia Health

CardioVascular HEALTH NOVA SCOTIA BULLETIN

IMPROVING CARDIOVASCULAR HEALTH OF NOVA SCOTIANS

Volume 6 **Issue 2** **Fall 2011**

Welcome to the Cardiovascular Health Nova Scotia (CVHNS) quarterly e-mail bulletin. The Bulletin has been created to share information about the program's activities, related cardiovascular health initiatives, and ideas from around the province.

Stroke Care in Canada—How are we doing?

In June of 2011, the results of the first National Stroke Audit were released. The report, entitled "The Quality of Stroke Care in Canada" was published by the Canadian Stroke Network. This audit examined approximately 9,500 charts in all ten provinces. Details on the methodology used can be found in the report. In Nova Scotia, 1,081 charts from 12 hospitals were audited.

Appended to the report is a summary from each province indicating key achievements and top priorities in stroke system reorganization, as well as data comparisons between provinces. Differing levels of participation in each province means that comparisons should be made with caution.

	Canada	NS	Leading Province
% arrived to hospital within 3.5 hours of stroke symptom onset	34%	35%	BC (40%)
% arrived by ambulance	70%	71%	AB (75%)
% received a brain scan within one hour of arrival*	22%	28%	AB(32%)
% received a brain scan within 24 hours of arrival	69%	76%	AB (79%)
% of all ischemic strokes that received tPA	8%	8%	AB (12%)
% of all ischemic strokes that arrived to hospital within 3.5 hours that received tPA	22%		
Median length of stay	7 days		
% receiving stroke unit care at anytime during admission	23%	33%	AB (52%)
% discharged home‡	58%	63%	NB (72%)
% discharged to Long Term Care‡	10%	8%	MB (4%)
% discharged to Inpatient Rehabilitation‡	19%	16%	ON (27%)

*Excludes CT scans done at another facility prior to arrival at admitting hospital

‡ % of all patients discharged alive

NOVA SCOTIA

The report provides the first ever national audit of stroke care in Canada and includes more data than that summarized here. It provides a useful baseline to measure progress in Canada and glimpse into the variations in care that still exist in different provinces.

Across the country, only 35% of people with stroke or TIA are arriving at hospital within 3.5 hours of symptom onset, and only 22% of all stroke or TIA admissions receive their brain scan within one hour of hospital arrival. Nationally, 8% of all ischemic stroke admissions received tPA – the clot busting drug for stroke. Of those ischemic stroke patients who arrived within 3.5 hours, 22% received tPA. Arriving early and getting a prompt brain scan are essential as tPA can only be administered within a narrow time window.

While Nova Scotia has the third highest rates of brain scan within 1 hour (28%) and within 24 hours of arrival (76%), there is still room for improvement. Our rate of patients with ischemic stroke receiving tPA is 8%, consistent with the national average. There is room for improvement in our rates of tPA administration as 10-12% of ischemic strokes receive tPA in 4 other provinces (Alberta, Saskatchewan, Manitoba, and Quebec).

The Canadian median length of stay for stroke and TIA patients is 7 days, with longer stays for ischemic strokes and hemorrhages (9 and 11 days respectively), and shorter for TIAs and strokes of unknown type (2 days). Twenty three percent of admitted patients across the country were cared for on a designated stroke unit. Nova Scotia (33%) is well above national average (23%) in the percentage of patients treated on a stroke unit during their admission. Nova Scotia also saw more people discharged home (63%) than the national average (58%), and had the second lowest rate of discharge to Long Term Care in the country (8%).

There have been continued improvements and roll out of stroke programs across the province since the time period captured in this data and the surveillance and monitoring system under development by CVHNS will hopefully show continued improvements in care. Detailed analysis of the Nova Scotia data has been completed and will be released soon. Please note that minor variations in the analysis strategies in the national and provincial reports will result in small differences in the results between the two reports. The full national report can be found at www.canadianstrokenetwork.ca.

Learning Opportunities

ACC.12
March 24-27, 2012. Chicago, IL.
http://accscientificsession.cardiosource.org/ACC12.aspx

National Preventive Cardiovascular Nursing Association Conference
April 12-14, 2012. Washington, DC.
www.pcna.net/education/annual/index.php

16th Annual Atlantic Canadian Cardiovascular Conference
April 19-21, 2012. Halifax, NS.
www.cme@dal.ca

CVHNS News

Presentations on DHA Cardiovascular & Stroke Data

CVHNS has visited several districts to present 2009 quality indicator reports for AMI and CHF. We have also presented the DHA level results of the national stroke audit to most districts. These presentations have been attended by senior leaders, clinicians and quality improvement staff and have resulted in great discussions regarding potential areas for quality

improvement and further investigations into the data. Presentations can be arranged by telehealth or web-based sessions, as well. If you are interested in a cardiac presentation (2010 data) in your DHA, contact kathy.harrigan@cdha.nshealth.ca or your local cardiac district coordinator.

If you are interested in a stroke presentation in your DHA, contact katie.white@cdha.nshealth.ca or your local stroke coordinator.

Stroke Surveillance and Monitoring in Nova Scotia

Our ability to monitor and understand the impact of stroke care reorganization is growing. A minimum dataset, developed by CVHNS, was released in July of 2011 to be completed on all stroke and TIA admissions in each district. This collects the data necessary to answer 11 core stroke indicators as identified by a working group this past spring. In the longer term, CVHNS will also be developing processes for periodic audits on specific priority topic areas. This will enhance stroke data that is already collected or available, including CIHI 340 as well as the National Stroke Audit. CIHI 340 collects information in the Discharge Abstract Database (DAD) on 5 key indicators for all stroke and TIA admissions in the province. Districts and the province can use available data to monitor and continue to improve stroke care in Nova Scotia. For more information, please contact Katie White (katie.white@cdha.nshealth.ca).

Audit of Cardiac Catheterization Referrals

Our *Nova Scotia Guidelines for Acute Coronary Syndromes* (2008) explicitly outline recommendations for cardiac catheterization for both STEMI and NSTEACS patients based on risk category. Referral for cardiac catheterization +/- PCI is recommended within 24-48 hours for the highest risk NSTEMI patients and emergently for the highest risk STEMI patients. A retrospective audit will be conducted to determine if patients are being referred for and receiving a cardiac catheterization within the recommended time frames based on risk category. CVHNS is also working with cardiac district coordinators to develop a process to audit charts of patients who are not referred for cardiac catheterization to determine the reasons for non-referral. The results of these audits will be shared with district health authorities and other stakeholders.

Timely Administration of Thrombolysis in AMI Forum

Cardiovascular Health Nova Scotia (CVHNS) and the Canadian Patient Safety Institute Safer Health Care Now (CPSI SHN) hosted stakeholders from each district health authority at a forum on September 8th, 2011. The forum focused on improving door to ECG and door to needle times for "walk in" STEMI patients. Approximately 58% of STEMI patients arrive at the emergency department by means other than ambulance. CVHNS data indicate that these patients are diagnosed and treated less rapidly than patients who arrive by ambulance. Dr. Clare Atzema (ICES and Sunnybrook Hospital, Toronto), guest speaker at the forum, reviewed current literature on strategies to improve timely thrombolysis. DHAs also shared strategies that have been successful in improving door to ECG and needle times in their emergency departments. Each DHA left with a specific quality improvement plan. CVHNS, CPSI SHN will continue to work with DHAs to support their quality improvement work in this area.

DHA News

Code Stroke in GASHA

In January 2011, Guysborough Antigonish Strait Health Authority implemented its "Code Stroke" tPA Activation Protocol. "Code Stroke" was conceived to ensure timely access to thrombolytic therapy within the reperfusion interval of 4.5 hours.

"Code Stroke" is activated when a patient over the age of 18 years is diagnosed with an acute stroke and the time from stroke onset is known to be less than 3.5 hours. "Code stroke" assures coordinated activation of all involved providers in order to expedite a thrombolytic therapy decision within 60 minutes of stroke presentation or recognition.
The Emergency Department (ED) Physician (if patient is pre-hospital or in ED) or Internist (if patient is an inpatient) assesses available information and activates 'Code Stroke' by notifying Switchboard if the following three criteria are met:

- Time from stroke onset is confirmed to be less than 3.5 hours
- Presence of measurable stroke deficit in a patient older than 18 years
- Absence of exclusion criteria for thrombolytic therapy

When code stroke is activated a STAT page goes out to the lab technician, clinical leader, and CT technician. The lab technician meets the patient directly in the location announced by the page, collects and analyzes the blood sample, and communicates results to the ED as soon as possible. The CT tech performs a "next on table" non contrast CT of head. Prior approval by the radiologist is waived in "Code Stroke". The primary nurse accompanies the patient to CT and provides monitoring. The physician informs the radiologist that "Code Stroke" has been activated. The Clinical Leader assures that the primary nurse can assume one on one nursing and that ICU and stroke unit beds are available.

This protocol has been activated numerous times resulting in timely response by all departments. Activation has resulted in door to CT time of 20-22 minutes and lab results in 11 – 13 minutes allowing greater assessment time than in the past.
If you would like more details please contact Michelle MacGrath, Stroke Program Coordinator at 870-1718 or michelle.macgrath@gasha.nshealth.ca.

New Safety Label for Simvastatin
The U.S. Food and Drug Administration announced NEW safety label changes for the cholesterol-lowering medication simvastatin. The highest approved dose of 80 milligram (mg) has been associated with an elevated risk of muscle injury or myopathy, particularly during the first 12 months of use.
The agency is recommending that simvastatin 80 mg be used only in patients who have been taking this dose for 12 months or more and have not experienced any muscle toxicity. The 80 mg dose should not be prescribed to new patients. There are also new contraindications and dose limitations simvastatin when taken with certain medications.

Our Nova Scotia guidelines outline the concerns associated with the 80 mg dosage; however, the FDA has given more explicit instructions. For more information visit:
www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm258338.htm

Helpful Resources

CCS Atrial Fib Smart Phone App
The CCS Atrial Fibrillation Guidelines App was developed to provide a clear and concise summary of the Atrial Fibrillation guidelines published in 2011. Visit www.ccsguidelineprograms.ca/index.php for details.

CCS 2011 Heart Failure Management Guidelines
McKelvie RS, Moe GW, Cheung A, Costigan J et al. The 2011 CCS Heart Failure Management Guidelines Update: Focus on Sleep Apnea, Renal Dysfunction, Mechanical Circulatory Support and Palliative Care. *Canadian Journal of Cardiology.* 2011; 27: 319-338.

Cardiac Catheterization Video
New Brunswick Heart has produced a video for patients to watch prior to having a cardiac catheterization. It is available from: www.ahsc.health.nb.ca/Programs/NBHC/PatientTeachingVideo/Cath%20English%20Online%20Flash/English.html

CCS Antiplatelet Guidelines
Bell AD, Roussin A, Cartier R et al. The Use of Antiplatelet Therapy in the Outpatient Setting: Canadian Cardiovascular Society Guidelines. *Canadian Journal of Cardiology* .2011; 27: S1-S59.

Depression After Heart Attack-Cardiology Patient Page
Williams RB. Depression After Heart Attack. Why Should I Be Concerned About Depression After A Heart Attack? *Circulation.* 2011;123 e639-640.

***My Heart&Stroke Health Check Recipe Helper* Smartphone app** provides Canadians with a quick and easy resource to help lower the amount of sodium (salt) in their diets. The free app is available in English or French and can be downloaded from www.heartandstroke.ca/mobileapps.

***My Heart&Stroke Blood Pressure Action Plan* app** allows users to monitor and better manage their blood pressure. The free app is available in English or French and can be downloaded from www.heartandstroke.ca/mobileapps.

Tobe SW, Stone J A, Brouwers M et al.
Harmonization of guidelines for the prevention and treatment of cardiovascular disease: the C-CHANGE Initiative. *Canadian Medical Association Journal*. 2011:183(15): E1135-E1150.

Triglycerides and Cardiovascular Disease
Miller M, Stone NJ, Ballantyne C et al. Triglycerides and Cardiovascular Disease: A Scientific Statement from the American Heart Association. *Circulation.* 2011;123: 2292-2333.

CVHNS is Putting Feet back on the Streets
A group of 22 CVHNS staff, advisors and associates in the DHAs and NS Renal Program have taken the Heart & Stroke Walkabout™ challenge to walk the country and back.

Following a route they've named "CVHNS TransCanada Adventure", the group is collectively accumulating steps to travel 14,383 km from Halifax to Vancouver and back. The overall goal is to see how fast the group can make it back to Halifax

With the help of a pedometer and a chart of step equivalencies for activities other than walking, participants log their own steps and can track both their individual and group progress on the website. We hope to see members log increasing numbers of steps per day as the challenge moves forward.CVHNS challenges other programs and groups to race us across the country and back! No experience is required—just an interest in walking. Be active, get moving and change your life!

We've already made it to BC and are on our way back! For more information, visit the initiative online at www.walkaboutns.ca.

Patient and Family Centered Care

Seeing care through the eyes of a patient or family member is a crucial skill in designing truly patient- and family-centered care. A recent IHI news bulletin suggests that developing this "vision" isn't easy, but staff can do so by shadowing a patient or family member through an entire care journey. Clinicians can experience the care system from the point of view of a patient or family member, recording their reactions at each and every step. The clinicians can then use this data to develop new processes to improve the patient care experience. For more information visit: www.innovationctr.org/staff.htm

Physician Resource Binders in SWH

New physician specialists coming to South West Health to begin their practice and treat patients within the ICU will be provided a resource guide to assist them in the orientation process. The work was spearheaded by Maria Marshall, ICU Nurse Manager. A physician resource binder was created to provide new physicians with sample forms, order sets, medical directives, policies and protocols, provincial map of district health authorities and suggested disciplines and healthcare professionals with which to meet. As well, the Nova Scotia Guidelines for Stroke and Acute Coronary Syndromes are included.

The most recent addition to SWH staff, Dr. Ihsan Rafie, received the binder upon his arrival in early spring and shares his comments: "I found it useful because it outlined the local policy in treating common and serious conditions such as thrombolysis for MI and stroke. There are variations in the way treatments are administered across the province and the binder acts as the reference. Also the various forms and documentation inside the binder raised my awareness about different services being provided such as diabetes counseling and pharmacy consultation service. These services may not be available in each hospital in Nova Scotia. Very useful when you are new to the hospital." For more information contact Kelly Goudey at kgoudey@swndha.nshealth.ca.

CADTH Report on Cardiac Rehabilitation

Here is an excerpt from the December 2010 CADTH (Canadian Agency for Drugs and Technologies in Health) Report: Support Services for Cardiac Rehabilitation in Canada, Environmental Scan.

"There is emerging evidence that the beneficial effects of cardiac rehabilitation remain significant regardless of whether they are delivered as traditional hospital-based programs, as home based programs, or integrated within community family health centres. Despite the benefits of cardiac rehabilitation in the continuum of cardiovascular care, these services may be underutilized in Canada due, in part, to issues with accessibility or a failure to refer eligible patients."

The report is available from: www.cadth.ca/index.php/en/hta/reports-publications/environmental-scans/issue-13

CONTACT US
Room 539, Bethune Building
1276 South Park Street
Halifax, NS B3H 2Y9
Tel: 902.473.7834
Fax: 902.425.1752
cvhns@cdha.nshealth.ca
www.gov.ns.ca/health/cvhns