

Welcome to the Cardiovascular Health Nova Scotia (CVHNS) e-mail bulletin, produced 3 times annually. The Bulletin has been created to share information about the program's activities, related cardiovascular health initiatives, and ideas from around the province.

UNDERSTANDING PATIENT ACCESS TO STROKE REHABILITATION SERVICES

Cardiovascular Health Nova Scotia (CVHNS) conducted two projects to increase our understanding of access to stroke rehabilitation in the province: a prospective audit and linkage of the CVHNS provincial stroke registry with two Canadian Institute of Health Information (CIHI) databases. These projects provided data on stroke rehabilitation that were otherwise unavailable.

Prospective Audit

Stroke Coordinators used a standardized audit tool to prospectively collect data on consecutive patients admitted to the province's seven acute stroke units from April through June 2015. The audit tracked if patients were referred to inpatient, community, or outpatient rehabilitation services; or weren't referred to any rehabilitation services while on a stroke unit. Of the 224 patients in the audit, 74 (33%) were referred to an inpatient rehabilitation unit; however, a quarter of those patients did not get admitted to those facilities. They either remained in acute care (58.8%), went home (35.3%), or went to a less intensive rehabilitation service (5.9%) instead. Lack of bed availability was the most frequent reason given (89.7%) for delays between referral to patient admission, regardless of site.

Database Linkages

The CVHNS provincial registry was linked to the Discharge Abstract Database and National Rehabilitation Reporting System. Records for stroke patients discharged alive from an acute care hospital in Nova Scotia in the 2012 and 2013 calendar years were linked to the two CIHI datasets. Data were linked for patients who were admitted to one of five restorative care units, two inpatient rehabilitation units, or the Nova Scotia Rehabilitation Center within three months after discharge from acute stroke care. Wait-time and length-of-stay were calculated by type of rehabilitation facility for each year. In 2012, 14.3% of acute stroke

patients discharged alive were admitted to a rehabilitation facility within three months of discharge. This proportion increased to 16% in 2013. In 2012, 11% of the 173 patients admitted to rehabilitation were discharged to another facility or home to wait for admission to rehabilitation; this increased to 14% (of 194 patients admitted to rehabilitation) in 2013.

The prospective audit confirmed the existence of barriers to stroke patient access to rehabilitation services. Access and wait time varied by type of rehabilitation service. The database linkages showed that access to rehabilitation was generally not timely or seamless. Differences in access and length of stay between types of rehabilitation require further exploration, including the impacts of patient gender, age, stroke type, and place of acute care admission. The results of these projects were presented as posters at the Canadian Stroke Congress in Quebec City in September and at the Atlantic Canada Stroke Conference in Halifax in October, 2016.

Learning Opportunities

43rd Annual Spring Refresher: Emergency Medicine, March 30 - April 1, 2017. Halifax, NS. Contact Gillian Reid, gillian.reid@dal.ca. <https://medicine.dal.ca/departments/core-units/cpd/conferences.html>

4th Annual Heart Failure Workshop, May 12 - 13, 2017. Toronto, ON. www.hfupdate.ca/en

Heart Failure Update 2017, May 12 - 13, 2017. Toronto, ON. <http://ccs.ca/en/chfs-activities-and-events>

Atlantic Canada Cardiovascular Conference, May 26 - 27, 2017. Halifax, NS. http://ac-society.org/wp/en/home_acs_en/

CCCN National Spring Nursing Conference & Annual General Meeting, May 26 - 27, 2017. Victoria, BC. www.cccn.ca/content.php?doc=182

Clinical Day in Cardiology, June 9, 2017. Sydney, N.S. 902-567-8007

CVHNS News

Update of the Nutrition Section of the Nova Scotia Guidelines for Acute Coronary Syndromes (ACS)

CVHNS recently held a consensus process to review and update the nutrition section of the Nova Scotia Guidelines for ACS. Kathy Harrigan (CVHNS) and Laura Brady (Cardiology dietitian) reviewed and summarized the current evidence related to nutrition and secondary prevention of ACS. The evidence was shared with a panel of dietitians from across the province on December 14, 2016. A consensus process was used to ensure that the group as a whole could support the recommendations. Panel members are currently reviewing the recommendations and they will be asked for input on the plan for dissemination and implementation. Stay tuned!

Update of Working Group to Develop a Case Ascertainment Algorithm for Heart Failure in the Primary Care Setting

CVHNS and the Maritime Research Network for Family Practice (MaRNet) are working together to set the stage for learning more about heart failure care in primary care. The working group has met numerous times and is close to finalizing a heart failure case definition that will be transformed into an electronic algorithm that can be run in the electronic medical records. A sample of physicians from the MaRNet sentinel practices will assist in testing the algorithm to assess for sensitivity and specificity. If the algorithm accurately identifies heart failure patients in these practices, it will be used by MaRNet sentinel practices across Nova Scotia and rolled out in the national Canadian Primary Care Sentinel Surveillance Network (CPCSSN) database. This would allow us to learn more about heart failure best practices in primary care in Nova Scotia as well as compare ourselves to other provinces participating in CPCSSN. For more information contact kathy.harrigan@nshealth.ca or sara.sabri@dal.ca.

CVHNS Stroke Database Indicator Generator Goes Live

The CVHNS stroke database, launched in October 2016, has a new Indicator Generator feature. The Stroke Coordinators have access to an Indicator Generator that can produce local data. This will allow for more timely data on key indicators for the local area, monitoring of trends locally and assessing the impact of quality improvement activities, as well as provide a framework for

accessing additional indicators over time.

2017 Come on Nova Scotia....Check It! Blood Pressure Challenge

It's back...get ready for the **2017 Come on Nova Scotia...Check It! Blood Pressure Challenge**. For the 6th year in a row, CVHNS, Diabetes Care Program of Nova Scotia and the Nova Scotia Renal Program are teaming up to promote and support this province wide challenge. Held in the month of May to coincide with [World Hypertension Day](#) (May 17th), the challenge encourages Nova Scotians to have their blood pressures checked and learn more about the risks, as well as ways to prevent and to manage high blood pressure. To date over 17,000 blood pressures have been screened and numerous education/awareness events provided as part of the challenge. You can support the challenge by working within your organization and local community partners to provide opportunities in a variety of settings for Nova Scotians to learn about, and have their blood pressure checked. Whether you are new to the challenge or a seasoned participant, we have a toolkit which provides a planning guide and tools such as educational brochures, wallet cards to track blood pressure over time, decision-support tools for health care providers and much more! There will also be prizes to be won! For more information, see www.novascotia.ca/bloodpressure.

Cardiovascular and Stroke Coordinators Have Received Funding Through Nursing Strategy

Several projects and initiatives across the province have received financial support under Nova Scotia's Nursing Strategy through the Mentorship Fund and the Innovation Fund.

Yarmouth Regional Hospital had three projects funded through the Nursing Strategy. *Code Stroke* will be implemented in the Emergency Department (ED). Several ED nurses will provide education and mentorship to staff through in-services and a mock code stroke. Six staff nurses who care for acute stroke patients will partner with occupational therapy and physiotherapy for *Stroke Care Education* half-day sessions. This shadowing experience will include stroke patient assessment, proper positioning, handling, mobility and exercise, enabling nurses to act as a unit resource and share learnings. The *Enhancing Knowledge of 24 Hour Cardiology Transfer Service* initiative will provide the opportunity for 10 intensive care and cardiovascular unit nurses to attend a shadowing day at the Cardiac Catheterization lab in Halifax. Nurses must complete the 24 Hour Transfer for Cardiac Catheterization provincial LMS course and will act as a unit resource nurse on their return.

Rural sites in Cape Breton will have a *Nurse Champion* who will act as a resource and provide education about the 24 Hour Cardiology Transfer Service, rescue Percutaneous Intervention, and new cardiac protocols and initiatives. The first nurse champion will receive training at the Cape Breton Regional Hospital from the Cardiovascular Coordinator and will follow a patient through the

transfer process. The initiative will then be expanded to three other rural sites.

Helpful Resources

Canadian Cardiovascular Society. [National Quality Report: Transcatheter Aortic Valve Implantation](#). 2016.

Heart and Stroke Foundation. [Quality of Stroke Care in Canada: Stroke Key Quality Indicators and Stroke Case Definitions](#). Updated 2016.

Heart and Stroke Foundation. [The Burden of Heart Failure: 2016 Report on the Health of Canadians](#). 2016.

Macle L, Cairns J, Leblanc K, et al. [2016 focused update of the Canadian Cardiovascular Society guidelines for the management of atrial fibrillation](#). *Can J Cardiol*. 2016;32(10):1170-1185.

Saver JL, Goyal M, van der Lugt A, et al. [Time to treatment with endovascular thrombectomy and outcomes from ischemic stroke: a meta-analysis](#). *JAMA*. 2016;316(12):1279-1288.

Silverman MG, Morrow DA. [Hospital triage of acute myocardial infarction: is admission to the coronary care unit still necessary?](#) *Am Heart J*. 2016;175:172-174.

van Diepen S, Lin M, Bakal JA, et al. [Do stable non-ST-segment elevation acute coronary syndromes require admission to coronary care units?](#) *Am Heart J*. 2016;175:184-192.

Warach S, Johnston SC. [Endovascular thrombectomy for ischemic stroke: the second quantum leap in stroke systems of care?](#) *JAMA*. 2016;316(12):1265-1266.

Innovative Ideas

Heart Health Clinic Referrals for Heart Failure Patients

All cases admitted to St. Martha's Regional Hospital with cardiac diagnoses are reviewed by the Cardiovascular Coordinator to determine if they have heart failure. If the patient has heart failure and is currently not followed in the heart health clinic, the case is discussed with the charge nurse and primary care nurse to determine if a referral to the heart failure clinic is appropriate. The consult form is printed from the forms repository for the physician to fill out. For more information contact Marilyn Malis, marilyn.malis@nshealth.ca.

Initiative Taken by ED Nurse

In response to CVHNS's ST Elevation Myocardial Infarction (STEMI) Thombolytic Report, a quality improvement project was developed by a point of care nurse at a rural ED in the Western Zone. A retrospective chart audit will be performed to identify barriers and provide recommendations to improve ECG and lytic times for STEMI patients. For more information contact Ashley Swinamer, ashley.swinemar@nshealth.ca or Susan Atkinson, susanm.atkinson@nshealth.ca.

Improving Access to STEMI Tracking Sheet

ED staff at St. Martha's Regional Hospital use a STEMI tracking sheet to record triage time, ECG and

lytic time. In order to improve access to this form, it has been uploaded to the forms repository at all sites in the former GASHA district. In order to ensure forms are completed on all STEMI patients who receive lytic, the pharmacy department at St. Martha's wraps the STEMI tracking form around all TNK boxes in the Omnicell system at all sites. For more information contact Marilyn Malis, Marilyn.malis@nshealth.ca.

Endovascular Treatment (EVT) Team Protocol

In September 2016, the Central Zone Stroke Coordinator along with the neuro-intervention team at the Halifax Infirmary implemented a streamlined protocol for contacting endovascular therapy team members in a timely fashion. When a stroke patient is identified as a candidate for endovascular therapy, the interventional neuroradiologist makes one call to Voice Services to facilitate the call back of angiogram suite and anaesthesia staff. Previously, up to five staff members had to be contacted individually when initiating a case; if the team was needed outside of regular hours the calls were made while the neuroradiologist was en route to the hospital. The response to this new protocol has been very positive.

Stroke unit staff throughout NS completing online stroke education

Ongoing professional development in stroke care is a part of the government funding for stroke service enhancements in the province, with the funds being administered by CVHNS. CVHNS explored a variety of stroke education resources for increasing stroke nursing competencies, including Canadian Hemispheres 2.0 Stroke Competency Series. Hemispheres is an online education resource that incorporates Canadian stroke best practice recommendations throughout a series of interactive modules. Topics covered include: brain anatomy and physiology, stroke pathophysiology, hyperacute stroke care, in-hospital ischemic stroke, and stroke prevention. In fall 2016, 42 stroke team members, mostly nurses, in Western Zone participated in a pilot project to evaluate Hemispheres' applicability and usability in Nova Scotia. Overall the feedback was positive, with the majority of participants indicating the course would be of value to others in their discipline and for a variety of experience levels. Access to the course has been granted to 180 stroke team members across the province. The primary target is stroke unit nurses, with additional stroke staff participating as vacancies allowed. CVHNS plans to evaluate the need for continuing the course in the future.

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