

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.

UPDATES TO THE CANADIAN STROKE BEST PRACTICE RECOMMENDATIONS IN 2015

Two modules of the Canadian Stroke Best Practice Recommendations were updated in 2015: Hyperacute Stroke Care¹ and Mood, Cognition, and Fatigue². The updated recommendations were published in the International Journal of Stroke in August and October, respectively.

Updates to the Hyperacute Stroke Care module include recommendations that:

- All patients eligible for EVT should be treated within six hours of stroke symptom onset (or the time the patient was last known to be well). Patients within a 12-hour time window from onset of symptoms may be eligible for EVT if they meet imaging and clinical criteria.
- All acute stroke patients presenting within treatment time windows receive brain imaging with CT and vascular imaging with computed tomography angiography, with or without computed tomography perfusion.
- Paramedics/EMS personnel should relay information to emergency departments pre-hospital arrival to ensure that stroke teams are available when an acute stroke patient arrives (to initiate triage, registration, and time-sensitive investigations and treatments).
- A new target median door-to-needle time for medical thrombolysis has been set at 30 minutes, with the 90th percentile set at 60 minutes.

Updates to the Mood, Cognition, and Fatigue Following Stroke module include:

- Updated recommendations on the timing of screening for depression and vascular cognitive impairment. Screening for post-stroke depression may occur at various stages in the continuum of care (particularly at transition points). All stroke patients considered at risk for vascular cognitive impairment should be periodically screened and/or assessed to detect any changes that may occur over time.

- **New comparison tables³:**

- ♦ comparing selected antidepressants for management of post-stroke depression
- ♦ comparing assessment tools for screening for vascular cognitive impairment.

No one tool is recommended over others as screening and assessment needs will vary depending upon the patient, stage of care, and available resources.

- New literature suggesting prophylactic antidepressant medication can be effective in some stroke patients, but the optimal timing and duration of interventions still needs clarification. The benefits may not outweigh the risks for patients who are not at increased risk for depression. Careful monitoring and individualized treatment is suggested as a reasonable approach for patients considered at an increased risk for depression.
- New information on cognitive rehabilitation strategies for patients with vascular cognitive impairment; however there is limited evidence on the effectiveness of these strategies. Two approaches - remediation and functional (strategy-based) - are regarded as having enough evidence to support consideration by appropriate clinicians for certain cognitive deficits.
- Post-stroke fatigue recommendations moved to this module (from the Transitions of Care module). The recommendations include strong encouragement for patients, families, and health care teams to screen and monitor stroke survivors for this symptom.

Further details on the updates and the full recommendations can be found in the International Journal of Stroke articles and on the best practice recommendations website.

References:

1. Casaubon LK, Boulange JM, Blacquiére D, et al. Canadian stroke best practice recommendations: hyperacute stroke care guidelines, update 2015. *Int J Stroke*. August 2015; 10(6):924–940.
2. Eskes GA, Lanctôt KL, Herrmann N, et al. Canadian stroke best practice recommendations: mood, cognition and fatigue following stroke practice guidelines, update 2015. *Int J Stroke*. October 2015; 10(7):1130–1140.
3. Mood, Cognition, and Fatigue. Canadian Stroke Best Practice Recommendations Website. www.strokebestpractices.ca/index.php/cognition-mood/ Updated June 2015. Accessed November 26, 2015.

Learning Opportunities

42nd Annual Dalhousie Faculty of Medicine Spring Refresher, March 31 – April 2, 2016. Halifax, NS.

Contact Renée Downs, renee.downs@dal.ca, or 902-494-2173

16th Annual Stroke Review Course, April 8-10 2016. Ottawa, ON <https://strokeconsortium.ca/home/>

CCCN National Spring Nursing Conference & Annual General Meeting, May 27-28, 2016. Halifax, NS. www.cccn.ca/content.php?doc=182

3rd Annual Heart Failure Workshop, watch for details on date & location for 2016.

www.hfupdate.ca/en

Clinical Day in Cardiology, June 3, 2016. Sydney, N.S. 902-567-8007

The Heart and Stroke Foundation have webinars every two months related to the Canadian Stroke Best Practice Recommendations. Webinars are posted in Upcoming Events at www.strokebestpractices.ca. Past webinars are available to view [here](#). To be notified of upcoming webinars, contact Ev Glasser, eglasser@hsf.ca.

CVHNS News

Diabetes and Acute Coronary Syndrome (ACS) Working Group Update

The working group, a joint initiative with the Diabetes Care Program of Nova Scotia, met monthly in the fall to develop information packages for use with inpatients (newly diagnosed diabetes, new to insulin, or requiring a refresher in diabetes management). The materials, with emphasis on appropriate referral to a local diabetes centre, are intended to provide a more consistent approach to diabetes education across the province. The committee is currently working on five education modules for acute care practitioners working with the diabetes and ACS population (Diabetes 101, Diabetes and Acute Coronary Syndromes, Diabetes and the Frail Elderly, Insulin Administration and In-hospital Management of Diabetes.) The committee hopes to have all material completed by the end of March 2016. Stay tuned for further updates. For more information contact Kathy Harrigan, Kathy.harrigan@nshealth.ca.

Access to Stroke Rehabilitation Services

CVHNS has conducted a number of projects to increase understanding of patient access to stroke rehabilitation services across the province. The elements of access to service examined include equity, timeliness, and appropriateness of services. The findings of these initiatives will be compiled to give an overview of current access to stroke rehabilitation in the province.

- Prospective data collection – stroke coordinators across the province collected data for a three month period (April – June 2015) on 225 stroke patients. The coordinators gathered information about the type of rehabilitation services the patient was referred to, how long between time

of referral to admission to those services, and what types of delays and barriers to access patients experienced, if any.

- Data linkage – we are linking our provincial dataset on acute stroke care to the DAD and NRS to learn more about patient access and flow with inpatient rehabilitation services (for July 2011-December 2013). Wait times and length of stay will be calculated for each type of rehabilitation service that patients accessed.
- Patient follow-up interviews – stroke patients were interviewed three months after they were discharged from inpatient care for their stroke. Many of these patients had accessed inpatient rehabilitation services after their acute care was completed. Information on what services were accessed, challenges once in the community, and ongoing deficits was gathered.

CVHNS Re-engineering Project Update

The development of the CVHNS stroke database continues to progress. This work involves developing a web-based system similar to the cardiac system using the CAISIS platform (to replace the Excel format used currently for stroke monitoring). Current development initiatives include:

- determining if Admission-Discharge-Transfer (ADT) messaging can be incorporated into the database for early identification of admissions to the stroke unit.
- exploring options for generating local-level reports.

Stroke Patient Communication Referral Pilot Project

CVHNS and Nova Scotia Hearing and Speech Centres (NSHSC) collaborated on a pilot project to determine if stroke patients who have

communication deficits could be identified and referred to Speech-Language Pathologists (SLPs) without the SLP being included on the current stroke team automatic referral. The two stroke centres in Eastern Zone (Cape Breton Regional Hospital and St. Martha's Regional Hospital) offered to be pilot locations. A brief referral checklist conducted by a designated staff member, brief screening during dysphagia team swallowing assessments, and discussion of communication deficits at rounds were tested during the pilot project. It was found that these approaches, when used in conjunction, appear to be viable alternatives to automatic referrals. (During the pilot, all stroke patients were assessed for communication deficits to ensure none were missed using the alternative approaches). The next step is to expand this pilot into other areas of the province.

New Cardiovascular & Stroke Care Quality Initiatives in NSHA

A number of new initiatives to improve the quality of stroke and cardiac care are happening across the Nova Scotia Health Authority:

The Colchester and East Hants area, Northern Zone, has implemented a dashboard for reporting stroke data on a regular basis. The dashboard includes key indicators, such as door-to-CT time, door-to-needle time, percent of patients that have a stroke swallow screen completed, and the percent of patients admitted to the stroke unit. The dashboard is updated quarterly and made available to staff. In addition, monthly reports with these indicators will be circulated to staff in ER, Diagnostic Imaging and the Stroke Unit with additional details.

The Colchester and East Hants area has also created a new Stroke Quality Improvement Committee, which includes stroke team members, nursing staff, and a team leader. The committee plans to meet bimonthly

to discuss quality improvement opportunities (e.g., gaps in care) for stroke care and make recommendations for improvements. To learn more contact Meaghan Bushell, Meaghan.Bushell@nshealth.ca.

The Cumberland area, Northern Zone, has started a new initiative to improve door-to-ECG and door-to-thrombolytic times for STEMI patients. A working group with ER staff, acute care management, and quality management representatives has been formed. The Cardiac Coordinator will review cases to determine if target times were met and report this data to staff. To learn more contact Sue Boiduk, Susan.Boiduk@nshealth.ca.

In the South Shore area, Western Zone, the Cardiac Coordinator presented the most recent 2015 STEMI data to the Quality Council. Data on triage to ECG and lytic times were presented. Two separate case examples were discussed to highlight the impact for the patient and the health system when targets are met. The presentation highlighted that by working together, the quality improvement efforts of the ED and ECG teams and CVHNS are making a difference. For more information contact Susan Atkinson, Susanm.atkinson@nshealth.ca.

Helpful Resources

Web-based Tools

AHA Rise Above Heart Failure Initiative

The American Heart Association has launched a national effort called [Rise Above Heart Failure](#) to decrease heart failure related hospitalizations and increase public awareness using a variety of patient tools and resources.

End of Life Patient Resource

The Department of Health & Wellness, in collaboration with Cancer Care Nova Scotia, have

created a "[Preparing for End of Life](#)" booklet which is designed to help patients and families prepare for end of life care.

HSF Community and Long-Term Stroke Care Resource

[Taking Action for Optimal Community and Long-Term Stroke Care \(TACLS\)](#) is a resource for healthcare providers on how to provide safe care for those living with stroke in community and long-term care settings.

Patient Engagement Resource Hub

A collection of tools for engaging and partnering with patients and families to improve health and healthcare (e.g., engagement frameworks, toolkits, patient surveys). Available from [Google Play](#), [iTunes](#), and [online](#).

Publications

Blanchard CM, McSweeney J, Giacomantonio N, et al. [Distinct trajectories of light and moderate to vigorous physical activity in heart disease patients: Results from the activity correlates after cardiac hospitalization \(ACTION\) trial](#). *J Sci Med Sport*. 2014; 17(1): 72-77.

Cloutier L, & Gelfer M. [Blood pressure measurement: calling for a turn of the century](#).

Howlett JG, Chan M, Ezekowitz JA, et al. [The Canadian cardiovascular heart failure companion: bridging guidelines to your practice](#). *Can Cardiol J*. 2015; In Press.

Macle L, Cairns JA, Andrade JG, et al. [The 2014 atrial fibrillation guidelines companion: a practical approach to the use of the Canadian Cardiovascular Society guidelines](#). *Can Cardiol J*. 2015; 31(10):1207-1218.

Roffi M, Patrono C, Collet JP, et al. [2015 ESC guidelines for the management of acute coronary syndrome in patients presenting without persistent ST-segment elevation](#). *Eur Heart J* 2015; DOI:10.1093/eurheartj/ehv320.

Innovative Ideas

Introducing Business Intelligence in the Eastern Zone, Nova Scotia Health Authority (NSHA)

A partnership between Eastern Zone, NSHA and St. Francis Xavier University's (St. FX) School of Business is supporting evidence-based decision making and quality improvement in health care. Working with various departments and staff across Eastern Zone, Business Intelligence students from St. FX have implemented a software tool that accesses a myriad of data points from pre-existing sources (e.g. Discharge Abstract Database, Meditech/ADT, Safety Incident Database, Utilization Management, etc.). The tool generates dashboards to help users identify trends and/or potential issues and supports effective and efficient decision-making. Dashboards are built using high quality information that is reproducible over time in a consistent, easy to understand format.

For example, the creation of unit-specific utilization profiles guided a staffing-related decision to create a new 10am to 10pm shift to match high-volume/acuity times in a local Emergency Department. The tool has also been used to support safety incident analysis and provide up-to-date information to guide targeted quality improvement initiatives. This partnership has facilitated evidence-informed decision making at the senior level, supported improved health system performance and ultimately better patient care. It has also provided St. FX students with real world, highly marketable

experience. To learn more, contact Matthew Murphy, matthew.murphy@nshealth.ca.

Bullet Rounds for Stroke

The stroke team at Cape Breton Regional Hospital recently began to hold “bullet” rounds each week day (Monday-Friday) morning at 8:45. Rounds last no more than 15 minutes and are attended by the stroke coordinator, clinical nurse specialist stroke, clinical nurse lead stroke unit and as many stroke team members as can get there. To date, this format is working well as a means of timely identification of patient care needs and additional team member referrals. To learn more, contact Sandy Cantwell-Kerr, sandy.cantwell-kerr@nshealth.ca.

Access to Assistive Devices for Patients on Weekends/Holidays

At Colchester East Hants Health Centre in Truro, standard walkers and canes were purchased for all patient rooms within the medical program (stroke, medicine, and ALC units). The purpose is to decrease immobility on weekends and holidays when rehabilitation staff are not present to assess new admissions who may require assistive devices. Education sessions were held with nursing staff to review the use of the equipment and how to determine which patients are appropriate for the devices. Monitoring and evaluation of the use of the devices will be completed by rehabilitation staff. To learn more, contact Meaghan Bushell, meaghan.bushell@nshealth.ca.



HOW DO YOU REBUILD LIVES SHATTERED BY A HEART ATTACK?

TEACH THE HEART TO FIX ITSELF.

▶ **REGENERATIVE MEDICINE**

 **HEART & STROKE FOUNDATION**

heartandstroke.ca

FEBRUARY IS HEART MONTH

CONTACT US

Room 539, Bethune Building
1276 South Park Street
Halifax, NS B3H 2Y9
T: 902.473.7834 F: 902.425.1752
cvhns@nshealth.ca
<http://novascotia.ca/DHW/cvhns/>