Cascade Valley Hospital

Code Stroke: When Time Matters

Background
Cascade Valley Hospital (CVH) is located in Arlington and serves rural communities in North Snohomish County. CVH is a 48 bed Public Hospital District that sees approximately 25,000 patients in the emergency department each year. CVH also has several family medicine clinics as well as a pediatric, women’s health, and orthopaedic clinics, and has close affiliations to other specialty practices in the area.¹

Problem
Stroke is the 4th leading cause of death and the leading cause of disability in the United States. Stroke is also costly, with Americans paying $73.7 billion in 2010 for stroke related medical and disability costs. Time is critical in treating stroke patients, with every minute potentially magnifying the long term impact for the patient.²

Solution
When a “Code Stroke” is called at Cascade Valley Hospital, there’s an immediate response--the computed tomography (CT) scan is cleared, and lab, pharmacy, and radiology personnel all quickly head to the patient in the emergency department. And the results are telling; the time from when a patient enters the hospital until they start the CT scan has been reduced by 64% (see figure 1). Even more, as a TeleStroke partner, the CT scan results are immediately sent to UW Medicine’s Stroke Center through a virtual private network (VPN) connection where a board certified vascular neurologist is able to see the digital radiology images and discuss a plan of care with the referring provider in real time.³

Other supporting activities:
- Staff education is provided for continual feedback and sharing best practices.
- Community outreach, to learn the signs of stroke and know about CVH’s Stroke Program, is conducted regularly.
- Letters are sent to EMS personnel to follow-up on stroke patients that were in their care, allowing EMS to better understand their stroke patient’s outcomes and be acknowledged for their important role in the patients care.
- Staff trainings, consultations, peer review, and policy and procedures support are provided from the UW Medicine’s Stroke Center.

This collaboration also created an opportunity for Cascade Valley Hospital to become a Level 3 Stroke Center through the Washington State Department of Health’s Emergency Cardiac and Stroke System.⁴

Figure 1: Time tracked from when a patient enters the hospital to when they begin the CT scan compared to their 10 minute goal. Source: CVH’s electronic medical record system
Challenges

Lack of Standardization
- Noticing the lack of standardization on how a Code Stroke was being called within the Emergency Department, Stroke Coordinator Kelly Boardley implemented a standardized “fast exam” in February 2013. This allows for a quick exam in the triage stage of the patients’ care, allowing nurses to quickly check for chief complaints that match the criteria and be able to call a Code Stroke without having to wait for a physician’s orders, further expediting the process.

Primary Care Providers out of the loop
- Identifying the need to have primary care providers closely part of the process, Kelly has begun working with providers to educate them about the hospital’s Stroke Program. In development is the plan to have the hospital’s IT system send a fax to the primary care provider, notifying them about their stroke patient’s admittance and discharge summaries of the patient’s stay.

Keys to Success: Collaboration!

Local Collaboration
- Cascade Valley Hospital continually connects, informs, educates, and learns from internal staff, community providers, and the community members to improve patient care in their region.

Regional Collaboration
- Partnership with the UW Medicine Stroke Center provides timely expertise and access to resources and support.

Statewide Collaboration
- Cascade Hospital is also part of the North Region Cardiac and Stroke Network (NRCSN), where trauma care, cardiac and stroke, and EMS staff from hospitals across Island, San Juan, Skagit, Snohomish, and Whatcom Counties meet quarterly to share best practices and support each other’s quality improvement efforts.

For more information on Cascade Valley Hospital’s Stroke Program, contact:

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Resources
1. Cascade Valley Hospital: www.cascadevalley.org
3. UW Medicine Stroke Center: http://www.uwmedicine.org/Patient-Care/Our-Services/Medical-Services/Stroke-Center/Pages/Referrals.aspx