

VERMONT

Stroke Systems of Care Inventory

Primordial & Primary Prevention

- ◆ At \$5.2 million, Vermont ranks 14th in the country of percentage of funding recommended by the CDC.
- ◆ At \$1.99 per pack, Vermont (as of July 1, 2008) will rank 9th in the country on tax on cigarettes.
- ◆ Vermont's budget provides for a comprehensive program:
 - Smoking Cessation programs, including Quit Line, Tobacco Prevention Curricula in schools, and healthcare provider education
 - Vermont Nutrition and Physical Activity Plan for Obesity Prevention
 - Fit and Friendly Vermonters
 - ◆ Nutrition and Physical Activity Plan for Prevention of Obesity and Related Chronic Disease
 - Worksites Wellness Initiatives include:
 - ◆ Worksite Resource Guide
 - ◆ Governors Council Awards
 - Community Grants
 - ◆ Swanton
 - ◆ Morrisville
 - Get Moving Vermont
 - ◆ Statewide physical activity program
 - School Based Initiatives
 - ◆ State Wellness policy Guidelines
 - ◆ School Wellness Resource Guide
 - ◆ State Nutrition Policy
 - ◆ Farm to School
 - ◆ Safe Routes to School

Primordial & Primary Prevention

Blood Pressure & Other Screenings

- ◆ State-wide free screenings at events and public places – organized by AHA with volunteers (nurses, etc)
- ◆ Ladies First: state-wide free screening for Heart Disease & Cancer
- ◆ Wise Woman Program – CVD screenings and intervention series

Health Policy

- ◆ VT 2010 Goals
 - reduce stroke deaths to 48 per 100,000 (in 1998 was 57)
 - Reduce adults with high blood pressure to 16% (1999 was 22%)
 - Reduce adult smoking prevalence to 12% (22% in 1999; 19% 2006)

Additional Initiatives

◆ Health Care

– Quality Improvement

- ◆ Promoting Healthier Weight in Adult Primary Care
- ◆ Promoting Healthier Weight in Pediatrics

– Policy Priority

- ◆ Reimbursement

Community Education

Stroke education programs

- ◆ Community Med School at UVM

Communicating with policymakers

- ◆ Stroke Awareness Month
 - Handing out PSAs promoting stroke awareness month
 - Laying foundation for policymakers who have stroke in their life and would consider sponsoring legislation
 - Advocates talk about the entire legislative Agenda in Feb during Heart Month – including stroke
 - Vermont still needs to find champion in the statehouse

Notification & Response of EMS for Stroke

Stroke Protocols in Vermont

- ◆ VT's EMS system does not have a stroke protocol
- ◆ According to EMS Chief, because VT has no designated primary stroke center, there is no hospital destination protocol for stroke
- ◆ It is acknowledged that Fletcher Allen (FAHC) and Dartmouth Hitchcock are the tertiary-level hospitals for stroke

Destination Protocols

- ◆ The only destination protocol occurs when a patient is within a 10 minute difference between 2 destinations – EMS will transport the patient to the hospital that has a higher level of care for the patient's presentation
- ◆ If there is greater than 10 minute difference, the patient will be taken to the local hospital

EMS (continued)

Transport Protocols (cont.)

- ◆ Belief exists among EMS that significant risk exists in bypassing local hospitals in favor of a tertiary care destination, for fear that other major complications will occur in route

EMS in VT – Cultural View on Stroke Care

- ◆ VT EMS policymakers believe that the science behind appropriate stroke care is up in the air
- ◆ View exists that tPA can benefit some while worsening others
- ◆ Perception exists that risk-to-benefit ratio for tPA is too high for many local hospital ED teams
- ◆ Local docs do not believe in bypassing the local level care center

EMS (continued)

EMS view of critical issues for improving stroke care in Vermont

- ◆ ED team education is critical – stroke expert in Vermont must educate ED teams
- ◆ Speed of CT scan availability at local hospitals
- ◆ Quality of secondary transfer mechanism in VT – how fast can air transport & critical ground units be deployed
- ◆ EMS tertiary hospital perimeter protocol: ensuring that patients that fall into the 10 min differential for tertiary hospitals are sent to the higher level of care
- ◆ EMS education on presentation of stroke symptoms
- ◆ EMS communication: communicating with local and tertiary hospitals while in transport so that critical time is not wasted upon arrival, i.e. stroke teams are ready

Acute Treatment

Fletcher Allen Healthcare-UVM is the tertiary-level hospital for stroke

- ◆ Receives referrals from numerous outlying hospitals in VT and NYS
- ◆ 24 hour Stroke Team
- ◆ ER Triage of stroke
- ◆ Stroke Code paging system
 - Stroke MD's, neurology resident, NP, INR, CT tech, Rad resident, IV team
- ◆ Stroke Unit
- ◆ Protocols
- ◆ Neurosurgery/Neuroimaging available 24/7

Subacute and Secondary Prevention

Fletcher Allen Healthcare-UVM is the tertiary-level hospital for stroke has implemented:

- ◆ **Stroke Admission orders address:**
 - Cardiac monitoring/Imaging
 - DVT prophylaxis
 - Aspiration precautions
 - Nutritional assessment
 - Skin care
 - Foley catheter
 - Early mobilization
- ◆ **Routine screening:**
 - Antiplatelet agents (as part of acute Rx)
 - Lipids
 - HbA1C
 - Arrhythmia
 - BP/renal function
 - Smoking cessation
- ◆ **Stress coordination of care with PMD/Rehab**
- ◆ **Quality Website**

Rehabilitation of Stroke Patients

VT Stroke Rehabilitation Services

FAHC & Dartmouth:

- ◆ In-patient services: OT, PT, and Speech for sub-acute assessment

Fanny Allen (Colchester, VT – Chittenden County):

- ◆ FAHC's off-site 35 bed in-patient rehab center
- ◆ Not Stroke specific
- ◆ Has state-wide admissions coordinator
- ◆ Rehab focuses on:
 - Cognitive: life-skills (check-book balancing, meal preparation, independent living skills)
 - Mechanics: dressing, walking, speech, swallowing

Rehabilitation of Stroke Patients

Fanny Allen (Cont.)

◆ Special Features:

- Life-skills Room – set-up like an apartment -- for patients who are close to discharge who can practice independent living
- Bracing Clinic
- Advanced wheelchair and equipment capabilities

Rehabilitation of Stroke Patients

Local Hospitals

- ◆ PT, OT, Nurse, and Speech
- ◆ Focus is on getting patient to the minimum level to go home safely
- ◆ Patients that can go home either receive out-patient rehab services at local hospital (OT/PT/speech – perhaps not integrated team) or at home
- ◆ Patients can also go to Fanny Allen on an out-patient basis
 - Transportation can be arranged
 - Assessed by Fanny Allen Admissions Coordinator
- ◆ Patients that do not meet minimum level to go home safely are transferred to Fanny Allen on in-patient basis

Continuous Quality Improvement Initiatives

- ◆ FAHC had a workgroup that disbanded
- ◆ FAHC has a quality webpage with outcome measures
- ◆ VT Vital Statistics maintains records on stroke data
- ◆ One hospital in VT currently participates in the GWTG program and plans exist to expand this number

Evaluation/Continuous Quality Improvement

Survey was conducted in Fall 2006 of all VT hospitals focusing on acute treatment protocols and needs (especially those with ER services). The survey assessed the following:

- Hospital "acute stroke capability"
- Availability of 24 hour CT
- Existence of hospital Stroke Team
- Existence of Stroke Protocols
- Opportunities for stronger collaboration

*Results are being compiled and will be used to inform policy decisions with respect to stroke systems of care in Vermont.

Summary and Future Direction

- ◆ Use the NECC findings to develop plan for steps for VT
- ◆ Incorporate manageable steps into Vermont Public Policy Plan
- ◆ Re-establish state-wide stroke taskforce
- ◆ Complete new stroke survey
- ◆ Stroke survey results will determine the next course of action as well