

## Washington State Emergency Cardiac and Stroke System Update #3, March 30, 2011

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### Cardiac and Stroke Triage Tools Revised

The Emergency Cardiac and Stroke Technical Advisory Committee recommended revisions to the cardiac and stroke triage tools based on feedback provided by EMS and hospitals earlier this year. We'll post the revised tools on the website once the department finishes the final review next week. These will be the official triage tools EMS will use to triage and transport cardiac and stroke patients when a community is ready to implement the system locally. The first year we use these tools will be a time to evaluate them and identify areas for improvement. We will provide a way for you to submit suggestions for improvement and concerns about the tools to be considered when the tool is reviewed in 2012.

### List of Participating Hospitals and April-May Open Application Period

Most of the applications look really good. We're following up with those that need a little help. The list of categorized (same thing as participating) hospitals will be released as close as possible to our goal date of April 1, 2011, but likely not until the first or second week in April.

The second open application period begins April 1, 2011. Applications are due May 31, 2011. If you want to apply, or you **have** already applied and want to change your categorization level, request applications from Kim Kelley, [kim.kelley@doh.wa.gov](mailto:kim.kelley@doh.wa.gov). Please indicate which categorization level you want. Also, please do not use applications from the first round. We've made some corrections to the forms.

### Next Steps for Implementation

In a previous update, we told you the system will be phased in as communities are ready rather than an absolute "go live" date on July 1, 2011. A community is ready when:

- **Participating hospitals are identified.** The first list will be released in early April 2011, and the second list in August 2011.
- **Cardiac and stroke regional patient care procedures (PCP's) are developed and approved.** These documents were reviewed, and recommendations made, for all 8 regions at the March EMS and Trauma Steering Committee meeting.
- **Cardiac and stroke county operating procedures (COP's) are updated based on the PCP's and participating hospitals.** COP's define how the EMS system operates at the county level, including which hospitals to transport patients to. COP's are developed, collaboratively, by county EMS Councils and EMS medical program directors. Once the list of participating hospitals is released in April, councils and MPDs will begin to develop COPs or finalize them if they've

already started working on them. Cardiac and stroke hospital staff will play a key role in the development of these COPS and you are encouraged to participate in the process. You can contact your local EMS office or the MPD in your county to find out how to become involved in this process. You can email Kim Kelley [kim.kelley@doh.wa.gov](mailto:kim.kelley@doh.wa.gov) if you need contact information for these folks.

- **MPD patient care protocols are in place.** These protocols define the clinical care EMS provides to patients. Each county MPD develops protocols based on state guidelines for EMS providers in their county.
- **EMS providers are trained on the destination triage tools, PCP's, COP's and protocols.** A customizable training template has been developed for MPDs and EMS trainers. We're updating it right now due to the triage tool revisions. We'll let you know when the updated version is available.

See the updated timeline on the website <http://www.doh.wa.gov/hsga/hdsp/tl.htm>.

### **Guidance on EMS Coordination Plans due July 1, 2011**

The purpose of the EMS coordination plan is to ensure EMS-hospital coordination in the development of the local/regional ECS system. Ideally, EMS providers and the hospitals should work together to standardize prehospital procedures. Standardization is a basic system strategy to improve process. For time-critical cardiac and stroke care, it removes the guess work, thereby saving time and ultimately improving outcomes. See the Pierce County example, attached.

Since our initial guidance in the January 7 Q&A, it's become clear that much of what should be in this plan is already in, or will be in, EMS documents like the regional EMS patient care procedures, county operating procedures, prehospital treatment protocols, hospital transfer agreements, and regional or county diversion plans. We encourage you to work with your local EMS Council to develop a plan like Pierce County's, or incorporate this kind of information into county operating procedures.

For the plans due July 1, 2011, copies of cardiac and stroke county operating procedures and protocols that include information about prehospital assessment and treatment (e.g., medications, IVs, fibrinolytic checklist), and pre-arrival notification will be adequate. A plan similar to Pierce County's is best practice.

### **ECS Conferences May 17, 2011 SeaTac and June 7 Spokane**

**"WA State Emergency Cardiac and Stroke System: Making it Work in Your Community"** (See Save-the-Date flyer <http://www.doh.wa.gov/hsga/hdsp/files/ecconference.pdf>)

These conferences are for you. They're an opportunity to meet your partners in this system we're building together, and to learn and share best practices for developing local and regional cardiac and stroke systems of care. The agendas are the same, but the focus is regional. You should attend the SeaTac conference if you work in the Central, North, Northwest, West, and Southwest regions. The Spokane conference is for the East, North Central, and South Central regions. See chart below to find your region.

Here's what people said about last year's stroke-focused conference:

*"Excellent, excellent program. I am taking back many 'pearls'! Thank you!"*

*"Today was wonderful! Informative, great networking, good food and great learning opportunities. Thank you for a most beneficial experience."*

*“Thank you for hosting/sponsoring this again. Wonderful resource for stroke professionals across the continuum. Quality symposium, inexpensive and local - can't beat that.”*

*“Wonderful time to share info so standardization of processes can occur.”*

*“Learned some new tricks and made some good connections too.”*

### EMS/Trauma/Cardiac/Stroke System Regions

Region	Counties:
Central	King
East	Ferry, Stevens, Pend Oreille, Lincoln, Spokane, Adams, Whitman, Asotin, Garfield
North	Whatcom, Skagit, San Juan, Island, Snohomish
North Central	Okanogan, Chelan, Douglas, Grant
Northwest	Clallam, Jefferson, Kitsap, Mason
South Central	Yakima, Kittitas, Benton, Franklin, Walla Walla, Columbia
Southwest	Wahkiakum, Cowlitz, Clark, Skamania, Klickitat, south Pacific
West	Pierce, Thurston, Lewis, Grays Harbor, north Pacific

### Professional Educational Opportunities

#### Conferences

**2<sup>nd</sup> Annual Neuroscience Update Conference**, Providence Regional Medical Center, May 13, 2011 at the Tulalip Resort in Marysville

<http://cmetracker.net/PROV/Files/Brochures/4379.pdf>

**5<sup>th</sup> Annual Cerebrovascular Symposium – New Therapeutics for Today’s Patient**, Swedish Medical Center, May 12-13, 2011, Seattle <http://www.swedish.org/CVD2011>

**WA State Emergency Cardiac and Stroke System: Making it Work in Your Community**, west side May 17, 2011 SeaTac Doubletree; east side June 7, 2011 Spokane Red Lion (see info above)

#### Online Courses

**University of Washington Stroke Lecture Series**

<http://depts.washington.edu/neurolog/seminars/wednesday/stroke/index.php>

**Swedish Medical Center Murdock Stroke Education Series** <http://swedish.org/murdockseries>

**Acute Stroke Online** – Contact Kim Kelley for free access to this American Heart Association/American Stroke Association course, [kim.kelley@doh.wa.gov](mailto:kim.kelley@doh.wa.gov). For more information about the course

[http://www.onlineaha.org/pdf/STROKE\\_ACUTE\\_LEARN\\_MORE.pdf](http://www.onlineaha.org/pdf/STROKE_ACUTE_LEARN_MORE.pdf)

#### Public Education Resources

**Make the Call, Don’t Miss a Beat Campaign** <http://www.womenshealth.gov/heartattack/> Aims to educate, engage and empower women and their families to recognize the seven symptoms of a heart attack that most commonly present themselves in women. This initiative includes a comprehensive

public service advertising campaign including: TV, radio, print, and outdoor materials; a campaign website; a strong social and news media effort; and partner- and community-based outreach.

<http://www.CardiacStrokeNetwork.org>

[http://www.doh.wa.gov/cfh/heart\\_stroke/For-Healthcare/Pub-Ed.htm](http://www.doh.wa.gov/cfh/heart_stroke/For-Healthcare/Pub-Ed.htm)

**Questions?** Contact Kim Kelley, Cardiac/Stroke Systems Coordinator  
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*Washington State Emergency Cardiac and Stroke System* <http://www.doh.wa.gov/hsqa/hdsp/default.htm>

**"Public Health-Always Working for a Safer and Healthier Washington"**

**Pierce County Stroke Plan  
Related to WA State Emergency Cardiac Stroke System of Care  
1-5-2011**

**Pierce County Destination\* Guideline (see Attachment A)**

(\*reference is the State of Washington Prehospital Stroke Triage Destination Procedure 3-17-10 final version)

The following is the list of hospitals Pierce County and pending initial level for stroke with WA DOH:  
MultiCare Health System:

Level 1 Stroke Center	Tacoma General Hospital
Level 3 Stroke Center	Allenmore Hospital
Level 3 Stroke Center	Good Samaritan Hospital

Franciscan Health System:

Level 1 Stroke Center	St Joseph Medical Center
Level 2 Stroke Center	St Anthony Hospital (no IA capabilities)
Level 3 Stroke Center	St Clare Hospital
Level 3 Stroke Center	St Francis Hospital ( <i>Reference King County plan</i> )
Level 3 Stroke Center	St Elizabeth Hospital ( <i>Reference King County plan</i> )

Madigan Army Medical Center (update prior to July 1, 2011 in Pierce County plan if participating as determined by DOH categorization)

**Standard procedures and communication for prehospital notification**

Standard communication via telephone or radio prior to arrival at the receiving emergency department following current Pierce County protocols of all patients with suspected stroke to include: estimated last known well time, and stroke assessment using F.A.S.T.

**System activation**

Following the prehospital notification, the receiving hospital will activate the stroke team response per their guideline.

**Transfers**

Transfers of patients to a higher level of stroke care will be coordinated between the sending and receiving hospitals. This includes the coordination and determination of the level (BLS, ALS, or critical care nurse) of care needed during transport and all other transfer requirements per the sending and receiving hospitals' procedures.

**Diversion to other categorized hospitals**

For acute stroke within the acute treatment window of 0-6 hours of last known well time there is a no divert policy at all hospitals. Any diversion of stroke patients within the acute treatment window, to other categorized hospitals will be tracked and reported accordingly by the diverting facility.

In Pierce County, all system issues related to medical divert (which includes the stroke patient population) are tracked and reviewed at quarterly meetings with representatives from Pierce County EMS Operations Committee, MultiCare Health System, and Franciscan Health System.

Data related to divert reviewed on a quarterly basis includes but is not limited to:

**Compliance with the Pierce County Divert Management Plan**

% of time on medical divert

% of time on trauma divert

Average daily ED census

Average daily ambulance volume

% left without being seen

Overlap of medical divert between Tacoma General Hospital & St Joseph Medical Center

% of EMS unit back in service in < 20 minutes

**Stroke related reporting to Pierce County Divert Committee and Pierce County EMS Operations**

Committee on a quarterly basis (from the stroke coordinators) at each facility will include:

Stroke Level that has been granted to each hospital

EMS system issues relating to delays in stroke care identified at the hospital level

Data collection elements are required by Department of Health

(there are no required data elements at this time)

**Education and training for EMS**

Each hospital will participate with the EMS education in regards to stroke as coordinated with the Pierce County EMS Operations Committee and Pierce County base stations. Each health system will develop a plan for education of hospital-based employees as determined by certification requirements and/or identified needs.

**Regional plan for stroke patient care procedures notification**

Pierce County Stroke Plan was reviewed and approved by Pierce County EMS Operations Committee on 1-5-2011. The plan was sent to the West Region EMS & Trauma Quality Improvement Forum for further review, input, and approval. A stroke coordinator from Pierce County will present the plan on January 20, 2011. Following West Regional approval the Pierce County Stroke Plan and any further West Region Stroke Plan will be submitted to the WA State Emergency Cardiac & Stroke System Technical Advisory Council.

ATTACHMENT A

**Pierce County Destination\* Guideline**

(\*reference is the State of Washington Prehospital Stroke Triage Destination Procedure 3-17-10 final version)

Estimate time patient last normal to arrival at stroke center emergency department:

**≤ 3.5 hrs                      Transport patient to the nearest highest level 1, 2, or 3 stroke center within 30 minutes transport time per regional patient care procedures.**

Level 1 Stroke Center	Tacoma General Hospital
Level 1 Stroke Center	St Joseph Medical Center
Level 2 Stroke Center	St Anthony Hospital
Level 3 Stroke Center	Allenmore Hospital
Level 3 Stroke Center	Good Samaritan Hospital
Level 3 Stroke Center	St Clare Hospital
Level 3 Stroke Center	St Clare Hospital
Level 3 Stroke Center	St Francis Hospital ( <i>Reference King County plan</i> )
Level 3 Stroke Center	St Elizabeth Hospital ( <i>Reference King County plan</i> )

**≥3.5 hrs to ≤ 6 hrs              Transport patient to nearest: Level 1 stroke center within 60 minutes transport time**

Level 1 Stroke Center	Tacoma General Hospital
Level 1 Stroke Center	St Joseph Medical Center

Level 2 stroke center with intra-arterial interventional capability within 60 minutes transport time (no level 2 with IA capability)

**>6 hrs or unknown              Transport patient to level 1, 2, or 3 stroke center within 30 minutes transport time per regional patient care procedures and patient/family preference.**

Level 1 Stroke Center	Tacoma General Hospital
Level 1 Stroke Center	St Joseph Medical Center
Level 2 Stroke Center	St Anthony Hospital
Level 3 Stroke Center	Allenmore Hospital
Level 3 Stroke Center	Good Samaritan Hospital
Level 3 Stroke Center	St Clare Hospital
Level 3 Stroke Center	St Clare Hospital
Level 3 Stroke Center	St Francis Hospital ( <i>Reference King county plan</i> )
Level 3 Stroke Center	St Elizabeth Hospital ( <i>Reference King county plan</i> )

**References:**

To assure consistency with county and regional patient care procedures the following documents were reviewed and referenced when preparing this document:

January 2008 Pierce County Patient Care Protocols with March 2010 Updates  
<http://www.piercecountywa.org/xml/abtus/ourorg/dem/ems/currentprotocols.pdf>

State of Washington Prehospital Stroke Triage Destination Procedure (3-17-10 final version)  
<http://www.doh.wa.gov/hsqa/hdsp/files/stroketrtool.pdf>

Washington State Emergency Cardiac and Stroke System Participation Criteria for Level 1, 2 & 3 Stroke Centers  
<http://www.doh.wa.gov/hsqa/hdsp/files/strokepc.pdf>

Washington State Emergency Cardiac and Stroke Technical Advisory Committee  
Recommendations for 9-1-1 Dispatch for Suspected Stroke and Acute Coronary Syndrome  
<http://www.doh.wa.gov/hsqa/hdsp/files/dispatchgl.pdf>

American Heart Association EMS Stroke Treatment Algorithm  
<http://www.strokeassociation.org/STROKEORG>