Washington State Department of HEALTH

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Cardiac Center Data Collection and Reporting Requirements

The Emergency Cardiac and Stroke System (ECS) law requires participating hospitals to "participate in a national, state or local data collection system that measures cardiac and stroke system performance from patient onset of symptoms to treatment or intervention." These data cover time intervals and processes along the continuum of care for the acute event: onset of symptoms: dispatch → EMS → transfer hospital → treating hospital → intervention → outcome. By checking how well the system works along the entire continuum of care, we'll find where the delays or obstacles are and target improvements where they're needed. dispatch, EMS transfer

Reporting to the Department of Health is not required. As noted in the introductory section of this application, the department was not funded for centralized data collection and analysis. We will get aggregate reports from Get With the Guidelines for Stroke, COAP, and Pacific Northwest CARES to get a state level view of ECS System performance.

To measure how well the ECS System achieves the goals of reducing time to treatment and improving heart attack and cardiac arrest outcomes without adding significant burden to hospitals, the ECS Technical Advisory Committee recommended data elements and measures that are generally consistent with national measures and registries. Data collection systems/registries used by hospitals and regional systems should, at a minimum, be able to collect, analyze, and trend:

- Time from onset of symptoms to 911 call (from EMS)
- EMS Time on-scene (arrival at patient side to departure from scene; from EMS)
- Mode of arrival/Percent of AMI patients who arrive by EMS, walk-in/self-transport, or transfer-in from another hospital
- Pre-arrival notification/Percent of AMI patients for whom prearrival notification from EMS was received
- Reperfusion/Percent of AMI patients who get any reperfusion (PCI or lytics)
- Hypothermia/Percent of resuscitated cardiac arrest patients who are appropriate for and get therapeutic hypothermia
- Mean door to balloon time
- Median door to balloon time
- Time from first medical contact (first medical contact means EMS, or first hospital if transferred in and arrival at first hospital was self-transport) to treatment/Percent first medical contact to balloon (PCI) in less than 90 minutes
- Time in transfer hospital or "door-in-door-out" time/Percent with door-in-door-out time less than 30 minutes
- Total time from onset of symptoms to treatment/Percent time from onset of symptoms less than 120 minutes
- CMS core measures (some overlap with recommended measures)
- Outcomes (in-hospital mortality; discharge disposition, e.g., alive, dead, home, nursing home, rehab. Suggested: left ventrical ejection fraction for AMI and cardiac arrest at discharge and 60 days; neurological outcome for cardiac arrest*)

- Percent of patients with PCI post-ROSC

Data collection and analysis is meant to be used by EMS and hospitals and their regional partners for internal and regional process and quality improvement, and national and state benchmarking.

The data collection tools or registries that measure onset of symptoms to treatment include:

National

NCDR’s ACTION Registry→-Get With the Guidelines□ - This QI program and patient management tool is the most comprehensive off-the-shelf data collection system available. In addition to core measures, GWTG measures time from onset, mode of arrival, advance notification from EMS, transfer status, discharge status. This option is the most comprehensive, it’s used nationally, and it comes closest to meeting the requirements in the law. There is a limited version that might be appropriate for Level II Cardiac Centers.

State

Clinical Outcomes Assessment Program (COAP) through the Foundation for Healthcare Quality. With the addition of AR-G in 2012 to COAP’s array of registries, hospitals can now meet the data collection requirements through COAP.

Local

Local data collection systems should, at a minimum, be able to collect, analyze, and trend the same data and measures listed above. Examples of local data collection systems include:

- An internal registry, information system, electronic health record, or spreadsheet, for a regional cardiac system of care. For example, a Level I Cardiac Center collects data in a database or spreadsheet on onset of symptoms to treatment and outcomes for their own patients as well as those transferred in by a Level II Cardiac Center. The Level II Center provides the necessary process data (e.g., time of symptom onset, time of arrival at and departure from hospital, etc.) to the Level I Center.
- *(For Level II only)* Participation in a regional cardiac system of care, where a Level I Cardiac Center participates in one of the national or state registries.
- *(For Level II only)* Internal hospital process to track recommended measures relevant to the level of care and services provided, i.e., this wouldn’t include door-to-balloon time since a Level II doesn’t perform PCI. This could be an internal registry, information system, electronic health record, or spreadsheet where heart attack and cardiac arrest patient data is collected and used to evaluate process and outcomes for quality improvement purposes, internally and regionally.

Other data collection systems not listed here may also meet the reporting requirement. To determine whether a data collection system meets the requirement or for any other questions about cardiac data collection systems, please contact Matt Nelson, 360-236-2816, Matt.Nelson@doh.wa.gov.

***Cardiac Arrest Measures**

In order to measure performance on cardiac arrest, we encourage hospitals to participate in the Pacific Northwest Cardiac Arrest Registry to Enhance Survival (PNW CARES) if requested by their county EMS medical program director. CARES is primarily an EMS registry, but there are four to six data elements needed from hospitals that care for resuscitated patients brought in by EMS. For information on Pacific Northwest CARES, contact Jenny Shin at 206-263-8586, jenny.shin@kingcounty.gov.