California Stroke Registry

Right Care Initiative Meeting

August 13, 2012
Background

• Assembly Bill 1220 (Berg, 2003)
• Governor-appointed Task Force
• *California’s Master Plan for Heart Disease and Stroke Prevention and Treatment 2007-2015*
  
  – Recommends the development of systems of care for acute heart attack and stroke
Master Plan Recommendations

• Goal: Reduce death and disability from heart disease and stroke through early detection, treatment, and management of acute events.

• Establish:
  – Standards for pre-hospital patient assessment
  – Protocols for preferential transport to designated centers
  – Criteria for certification of receiving hospitals
  – Standards for appropriate acute treatment
  – Continuity of care through linkages between hospitals
  – Stroke and STEMI System Work Groups to address development of statewide systems of care
Statewide Plans

Recommendations for
The Establishment of an Optimal System of Acute Stroke Care for Adults

Because stroke is the third leading cause of death in California and a leading cause of long-term disability.

Prepared by
The Stroke Systems Work Group, 2009
Co-convened by:
The American Heart Association/American Stroke Association & The California Heart Disease and Stroke Prevention Program, California Department of Public Health

Recommendations for
The Early Management of Adults with ST-Segment Elevation Myocardial Infarction (STEMI)

Because heart disease is the leading cause of death and long-term disability in California.

Prepared by
The STEMI Systems Work Group, 2010
Co-sponsored by:
The American Heart Association/American Stroke Association; The California Heart Disease and Stroke Prevention Program, California Department of Public Health; & The American College of Cardiology, California Chapter
Master Plan Recommendations

• Goal: Expand data acquisition and surveillance of cardiovascular disease, including evaluation of programs targeting heart disease, stroke, and related risk factors.

• Strategies:
  – Create statewide database to monitor pre-hospital care for acute coronary syndrome and stroke. Utilize data for QI, evaluation of strategies, and evaluation of public education programs.
California Stroke Registry

- Collaborative project since 2007
  - California Heart Disease and Stroke Prevention Program
  - American Heart Association/American Stroke Association
CSR Purpose

• Measure and track acute stroke care in California hospitals.

• Monitor progress of statewide system of stroke care.

• Repository of stroke data to promote quality improvement for acute stroke treatment.
**CSR Objectives**

- Decrease the rate of premature death and disability from acute stroke through secondary prevention.
- Increase public awareness of stroke treatment and prevention.
- Reduce disparities in acute stroke care by providing underserved populations with better access to treatment.
CSR Advisory Committee

- Convened in October 2007
- 11 voluntary members (current)
- Stroke neurologists, stroke coordinators, cardiovascular health epidemiologists, administrators, state QIO representative
- Members have expertise in stroke treatment, epidemiology/science, and/or the design of the CDC-sponsored California Acute Stroke Pilot Registry
- Telestroke subcommittee
CSR Recruitment

• Strategy I
  – 2008
  – GWTG hospitals

• Strategy II
  – 2009
  – Other Data Systems
  – Collaboration with California Cancer Registry (CCR)

• Strategy III
  – 2010
  – Systems of Care
  – Data Collection System
**CSR and CCR/Eureka**

- Partnership with the California Cancer Registry (CCR) – Eureka system
- Two decades of experience with data collection
- Integrated data platform for the collection and integration of hospital data from multiple data collection tools
- Standardization of data elements from various systems
- Report generation
CSR-Eureka: Expansion for LEMSAs

- CSR-Eureka Report Portal is designed to assist LEMSAs with assessments of stroke systems and education/training of EMS staff

- Hospitals upload data directly to CSR through CSR-Eureka platform

- Features include:
  - Fixed reports
  - Customized reports
  - Raw Data
Telestroke Networks

• CSR Telestroke Subcommittee
  – Currently developing a set of data elements to be collected by “spoke” hospitals

• CSR-Eureka data platform will allow:
  – Easier data submission from spoke hospitals to hub hospital
  – Report generation
Pre-Hospital Data Elements

• Incident or onset Date/Time
• PSAP call Date/Time
• Unit notified by dispatch Date/Time
• Unit arrived at patient Date/Time
• Unit left scene Date/Time
• Patient arrived at destination Date/Time
• Stroke scale
• Thrombolytic screen
• Destination/transferred to, name
• Reason for choosing destination
• Provider’s primary impression
• Provider’s secondary impression
**CSR Data Elements**

- Arrival and Admission Information
- Demographics
- Medical History
- Diagnosis and Evaluation
- Medications Prior to Admission
- Symptom Timeline
- Brain Imaging
- IV Thrombolytic Therapy
- In Hospital Treatment and Complications
- Discharge Diagnosis
- Discharge Treatments
- Stroke Rehabilitation
CSR Status
July 2012

• Total number of cases entered – 62,402
• Total number of hospitals participating – 46

• Total number of Primary Stroke Centers in California – 124 TJC; 2 HFAP
Funding

• CDC State Heart Disease and Stroke Prevention Program
  – $120,000 (2009)
  – $150,000 (2010)

• July 2012– Paul Coverdell National Acute Stroke Registry
  – 11 states
  – In-hospital care and EMS
  – 3-year award
  – $350,000 per year
Quality Improvement Activities

• CSR Collaborative for Northern California
  – Annual event for CSR hospital staff located in N Cal
  – Provides a forum to share best practices, discuss issues related to stroke care, learn from colleagues, and network

• Hospital QI calls (data and clinical)
  – One-on-one QI calls with stroke coordinators
  – Periodic group calls with CSR hospitals to present/discuss data QI issues and best practices
EMS Activities

• Regional Stroke Data Committee
  – Bay Area LEMSAs, CSR, and AHA/ASA
  – Developed set of pre-hospital data elements

• Consultations and one-on-one meetings/calls with LEMSAs
  – Development of stroke systems of care
  – Data collection, data reports, data sets

• EMS training and QI
Presentations

• CDC’s National Heart Disease and Stroke Prevention Program (Atlanta, September 2010)
• CDC’s Coverdell Technical Workshop (Atlanta, September 2010)
• American Stroke Association’s International Stroke Conference (Los Angeles, February 2011)
• American Public Health Association Annual Conference (Washington, DC, October 2011)
• American Public Health Association Annual Conference (San Francisco, October 2012)
CSR 2012 and Beyond

- Hospital data reports
- Pre-hospital data
- Quality improvement
- Recruitment of new hospitals
- Funding opportunities
Contact Information

California Heart Disease and Stroke Prevention Program
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www.cdph.ca.gov/programs/CVD

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