STROKE CERTIFICATION

Presenter
AHA Efforts to Improve Quality

• In December 2010, an AHA presidential Advisory released a publication called “Hospital Certification for Optimizing Cardiovascular Disease and Stroke Quality of Care and Outcomes.”

  • Published recommendations for the ideal system of care
  • Quality improvement programs to constantly evaluate and improve patient care
  • Recognition and accreditation programs for hospitals that have reached the higher level of patient care
  • Legislative and regulatory support at the state level to ensure consistent system implementation
Intent of AHA/ASA to explore hospital accreditation programs to develop truly meaningful programs that facilitate improvements in cardiovascular disease and stroke

“The AHA will work with the healthcare system to improve the quality of patient care to ensure optimal healthcare for all.”
AHA's work on stroke systems of care and stroke centers dates back nearly two decades.

The formal American Heart Association/ American Stroke Association (AHA/ASA) and The Joint Commission’s (TJC) relationship began in 2003 with the creation of the Primary Stroke Center Certification (PSC) program.

- The relationship has since expanded to include:
  - Comprehensive Stroke Center Certification
  - Acute Stroke Ready Hospital Certification
  - Thrombectomy-Capable Stroke Center Certification

The collaboration between the AHA/ASA and TJC certification programs combines a unique strength in science and evaluation.
Current Stroke Certifications

- The Joint Commission
- American Heart Association
- American Stroke Association

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- American Heart Association
- American Stroke Association

- Meets standards for Acute Stroke Ready Hospital
- Meets standards for Primary Stroke Center
- Meets standards for Thrombectomy-Capable Stroke Center
- Meets standards for Comprehensive Stroke Center
A Vision for Stroke Care

• The development of a group of stroke certifications for communities that would enhance the care provided in all types of patient care settings: rural, critical access hospitals, community hospital and academic medical centers.

• The stroke system would assure that all patients, regardless of the geographical area in which they live, would receive timely and safe access to stroke care.
The Stroke Care Pyramid

Comprehensive Stroke Center
All PSC functions plus Neurosurgeon
Neuroendovascular, and full spectrum of hemorrhagic stroke care

Primary Stroke Center:
Stroke Unit, coordinator, Stroke Service, continuum of inpatient care

Acute Stroke Ready Hospitals:
IV tPA, CT scanner, acute stroke expertise (via TeleStroke if needed)

Basic Care Hospital:
Assessment, identification, stabilization & transfer

New for 2018
Thrombectomy-Capable Stroke Center
Primary Stroke Center Certification

PSC certification recognizes centers that make exceptional efforts to foster better outcomes for stroke care. Achievement of certification signifies that the services you provide have the critical elements to achieve long-term success in improving outcomes. In many areas, EMS routing protocols will dictate where the most serious cases are taken.

Some key requirements include:

• Acute stroke team available 24/7
• Access to a neurologist 24/7 via in person or telemedicine
• Designated stroke beds
• Ability to provide IV thrombolytics

For a complete list of eligibility and requirements, refer to the PSC standards
Comprehensive Stroke Center Certification

• Developed in collaboration between The Joint Commission (TJC) and American Heart Association/American Stroke Association (AHA/ASA)

• Highest level of stroke care – in addition to providing all services available at a Primary Stroke Center:
  • Advanced imaging (CTA, MRA)
  • 24/7 availability of neurosurgical services, including ability to clip and coil aneurysms (and meet volume requirements for clipping and coiling of aneurysms and treatment of SAH due to aneurysm)
  • Ability to meet concurrently emerging needs of multiple complex stroke patients
  • Participate in IRB research
  • Increased education requirements for staff

• Submission of 16 stroke standardized performance measures
  • 8 STK measures
  • 8 CSTK measures

For a complete list of eligibility and requirements, refer to the CSC standards
Acute Stroke Ready Hospital Certification

- Developed as part of collaboration between The Joint Commission (TJC) and American Heart Association/American Stroke Association (AHA/ASA)
- At least 50% of the population in the U.S. lives more than 60 minutes from a primary stroke center
- These hospitals would not be candidates for primary stroke center certification due to a lack of resources to care for patients after intravenous thrombolytic therapy
- Ability to perform rapid assessment, head CT, labs, and administer intravenous thrombolytic therapy prior to transferring patient to a PSC or CSC.

Performance Measures:
- ASR-IP-1 Thrombolytic Therapy (IV t-PA initiated in the ED followed by inpatient admission to the ASRH)
- ASR-IP-2 Antithrombotic Therapy Administered By End of Hospital Day 2
- ASR-IP-3 Discharged on Antithrombotic Therapy
- ASR-OP-1 Thrombolytic Therapy (Drip and Ship)
- ASR-OP-2 Door to Transfer to Another Hospital
  - 2b Hemorrhagic Stroke
  - 2c Ischemic Stroke; drip and ship
  - 2d Ischemic Stroke; no IV t-PA prior to transfer

For a complete list of eligibility and requirements, refer to the ASRH standards
Thrombectomy-Capable Stroke Center Certification

- Developed as part of collaboration between The Joint Commission (TJC) and American Heart Association/American Stroke Association (AHA/ASA)

- Why Thrombectomy-Capable Stroke Center (TSC) Certification?

  - Not all PSCs are alike - 1/3 of Joint Commission certified PSCs perform mechanical thrombectomy
  - Recent studies have shown efficacy of mechanical thrombectomy for large vessel occlusive (LVO) ischemic strokes
  - Importance of having a dispersed network of hospitals that are certified so patients can receive the care they need
In addition to meeting all requirements for a primary stroke center:

- Minimum mechanical thrombectomy volume requirement
- Ability to perform mechanical thrombectomy 24/7
- Dedicated intensive care unit beds to care for acute ischemic stroke patients
- Availability of staff and practitioners closely aligned with CSC expectations
- A process to collect and review data regarding adverse patient outcomes following mechanical thrombectomy

For a complete list of eligibility and requirements, refer to the TSC standards
ACCREDITATION AND CERTIFICATION IN LEGISLATION
Core Policy Objectives and Guidance for Stroke Designation Policy

Stroke Designations:

- Recognition by states for all three tiers of stroke facilities is required including Comprehensive and Primary Stroke Centers, and Acute Stroke Ready Hospitals certified by the AHA/ Joint Commission or other national certifying bodies.
- Additionally, recognize facilities that have attained levels of distinction that provide endovascular therapies.

EMS Transport Protocol Plans

- Require that regional and/ or local EMS authorities develop and implement transport protocol plans for acute stroke patients (including patients with suspected large vessel occlusions being routed to endovascular capable facilities, when appropriate).
VALUE AND IMPACT OF ACCREDITATION AND CERTIFICATION
Value of Accreditation and Certification

• Provides a framework focusing on evidence based care to improve patient outcomes
• Assists organizations in establishing a consistent approach to care, reducing variation and the risk of error
• Designation for excellence in the care of patients
• Creates a loyal, cohesive clinical team
• Demonstrates commitment to a higher standard of clinical service
• Differentiate in the market
• May fulfill regulatory requirements (in some states)
Tips for Survey Prep
Using GWTG Stroke
Acute Stroke Ready Performance Measure Set

- ASR-IP-1 Thrombolytic Therapy (IV t-PA initiated in the ED followed by inpatient admission to the ASRH)
- ASR-IP-2 Antithrombotic Therapy Administered By End of Hospital Day 2
- ASR-IP-3 Discharged on Antithrombotic Therapy
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# Primary Stroke Center Performance Measure Set

<table>
<thead>
<tr>
<th>Set Measure ID</th>
<th>Measure Short Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>STK-1</td>
<td>Venous Thromboembolism (VTE Prophylaxis)</td>
</tr>
<tr>
<td>STK-10</td>
<td>Assessed for Rehabilitation</td>
</tr>
<tr>
<td>STK-2</td>
<td>Discharged on Antithrombotic Therapy</td>
</tr>
<tr>
<td>STK-3</td>
<td>Anticoagulation Therapy for Atrial Fibrillation/Flutter</td>
</tr>
<tr>
<td>STK-4</td>
<td>Thrombolytic Therapy</td>
</tr>
<tr>
<td>STK-5</td>
<td>Antithrombotic Therapy By End of Hospital Day Two</td>
</tr>
<tr>
<td>STK-6</td>
<td>Discharged on Statin Medication</td>
</tr>
<tr>
<td>STK-8</td>
<td>Stroke Education</td>
</tr>
</tbody>
</table>
# GWTG PSC STK Reports

## REPORT 1

<table>
<thead>
<tr>
<th>GWTG Standard Measures:</th>
<th>Select Measure</th>
<th>Measure Stroke:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GWTG Enhanced Version &amp; Special Initiative Measures:</strong></td>
<td><strong>STK Measure Set</strong></td>
<td></td>
</tr>
<tr>
<td>GWTG Additional Patient Population Measures:</td>
<td>Select Measure</td>
<td></td>
</tr>
<tr>
<td>Historic Measures:</td>
<td>Select Measure</td>
<td></td>
</tr>
<tr>
<td>Format:</td>
<td>Bar Chart</td>
<td></td>
</tr>
</tbody>
</table>

### Compare to:

- My Hospital
- All Hospitals
- All STK Hospitals
- All TX Hospitals
- South Region Hospitals
- West South Central Hospitals
- All Hospitals (non-expedited)
- All STK Hospitals (non-expedited)
## Thrombectomy Capable Stroke Center Performance Measure Set

### Standardized Performance Measures for Thrombectomy-Capable Stroke

<table>
<thead>
<tr>
<th>Measure Set No.</th>
<th>Measure Short Name</th>
<th>Ischemic Stroke</th>
<th>Hemorrhagic Stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>STK-1</td>
<td>Venous Thromboembolism (VTE) Prophylaxis</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>STK-2</td>
<td>Discharged on Antithrombotic Therapy</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>STK-3</td>
<td>Anticagulation Therapy for Atrial Fibrillation/Flutter</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>STK-4</td>
<td>Thrombolytic Therapy</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>STK-5</td>
<td>Antithrombotic Therapy By End of Hospital Day 2</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>STK-6</td>
<td>Discharged on Statin Medication</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>STK-8</td>
<td>Stroke Education</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>STK-10</td>
<td>Assessed for Rehabilitation</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

### Joint Commission Quality Measures for Disease-Specific Care Certification

<table>
<thead>
<tr>
<th>Measure Set No.</th>
<th>Measure Short Name</th>
<th>Type of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSTK-1</td>
<td>National Institutes of Health Stroke Scale (NIHSS) Score Performed for Ischemic Stroke Patients</td>
<td>Process</td>
</tr>
<tr>
<td>CSTK-2</td>
<td>Modified Rankin Score (mRS) at 90 days</td>
<td>Process</td>
</tr>
<tr>
<td>CSTK-5</td>
<td>Hemorrhagic Transformation (Overall Rate)</td>
<td>Outcome</td>
</tr>
<tr>
<td><em>CSTK-5a</em></td>
<td>Hemorrhagic Transformation for Patients Treated with Intravenous (IV) Thrombolytic (t-PA) Therapy Only</td>
<td>Outcome</td>
</tr>
<tr>
<td><em>CSTK-5b</em></td>
<td>Hemorrhagic Transformation Patients Treated with Intra-Arterial (IA) Thrombolytic (t-PA) Therapy or Mechanical Endovascular Reperfusion Therapy</td>
<td>Outcome</td>
</tr>
<tr>
<td>CSTK-8</td>
<td>Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade</td>
<td>Outcome</td>
</tr>
<tr>
<td>CSTK-9</td>
<td>Arrival Time to Skin Puncture</td>
<td>Process</td>
</tr>
</tbody>
</table>
## Comprehensive Stroke Center Performance Measure Set

<table>
<thead>
<tr>
<th>Set Measure ID</th>
<th>Measure Short Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSTK-01</td>
<td>National Institutes of Health Stroke Scale (NIHSS Score Performed for Ischemic Stroke Patients)</td>
</tr>
<tr>
<td>CSTK-02</td>
<td>Modified Rankin Score (mRS at 90 Days)</td>
</tr>
<tr>
<td>CSTK-03</td>
<td>Severity Measurement Performed for SAH and ICH Patients (Overall Rate)</td>
</tr>
<tr>
<td>CSTK-04</td>
<td>Procoagulant Reversal Agent Initiation for Intracerebral Hemorrhage (ICH)</td>
</tr>
<tr>
<td>CSTK-05</td>
<td>Hemorrhagic Transformation (Overall Rate)</td>
</tr>
<tr>
<td>CSTK-06</td>
<td>Nimodipine Treatment Administered</td>
</tr>
<tr>
<td>CSTK-07</td>
<td>Median Time to Revascularization</td>
</tr>
<tr>
<td>CSTK-08</td>
<td>Thrombolysis in Cerebral Infarction (TICI Post-Treatment Reperfusion Grade)</td>
</tr>
<tr>
<td>CSTK-09</td>
<td>Arrival Time to Skin Puncture</td>
</tr>
<tr>
<td>CSTK-10</td>
<td>Modified Rankin Score (mRS at 90 Days: Favorable Outcome)</td>
</tr>
<tr>
<td>CSTK-11</td>
<td>Timeliness of Reperfusion: Arrival Time to TICI 2B or Higher</td>
</tr>
<tr>
<td>CSTK-12</td>
<td>Timeliness of Reperfusion: Skin Puncture to TICI 2B or Higher</td>
</tr>
</tbody>
</table>
Rate Measures

Percent of Patients

CSTK-01: My Hospital
CSTK-03: My Hospital
CSTK-03a: My Hospital
CSTK-03b: My Hospital
CSTK-04: My Hospital
CSTK-05: My Hospital
CSTK-05a: My Hospital
CSTK-05b: My Hospital
CSTK-06: My Hospital
CSTK-08: My Hospital
CSTK-10: My Hospital
CSTK-11: My Hospital
CSTK-12: My Hospital
Use of the Data

- Know Your Patient Population (demographics, LOS, risk factors)
- Design your program/interventions around the patients you are seeing
- Opening Conference for Certification
- Patient Education
Performance Measure Reference

- www.jointcommission.org
Know Your Population
**Data For: Gender**

Note: Time periods at the end of the graph and data table have been omitted because there were no patient records during that time.

<table>
<thead>
<tr>
<th>Benchmark Group</th>
<th>Time Period</th>
<th>Male</th>
<th>Female</th>
<th>Unknown</th>
<th>Total</th>
<th># of Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>All WI Hospitals</td>
<td>2017</td>
<td>5136 (49.8%)</td>
<td>5173 (50.2%)</td>
<td>1 (0%)</td>
<td>10310</td>
<td>60</td>
</tr>
</tbody>
</table>
Know Your Population

![Graph showing race distribution across different time periods.](image)

**Data for: Race**

Note: Time periods at the end of the graph and data table have been omitted because there were no patient records during that time.

<table>
<thead>
<tr>
<th>Benchmark Group</th>
<th>Time Period</th>
<th>White</th>
<th>Black or African American</th>
<th>Asian</th>
<th>American Indian or Alaska Native</th>
<th>Native Hawaiian or Pacific Islander</th>
<th>UTD</th>
<th>Hispanic Ethnicity: Yes</th>
<th>Total</th>
<th># of Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Wt Hospitals</td>
<td>2017</td>
<td>8821</td>
<td>848 (9.8%)</td>
<td>164</td>
<td>75 (0.7%)</td>
<td>10 (0.1%)</td>
<td>244</td>
<td>252 (2.5%)</td>
<td>10175</td>
<td>60</td>
</tr>
</tbody>
</table>
Know Your Population

Medical History

Time Period

Percent of Patients

- None
- Atrial Fibrillation
- CAD/Phar.
- Current Pregnancy
- Depression
- Diabetes Mellitus
- Drug/Alcohol Abuse
- Dyslipidemia
- Family History of Stroke
- Hypertension
- Headache
- Obesity/Obesity
- Previous Stroke
- Prior TIA
- Prosthetic Heart Valve
- PFO
- Renal Insufficiency
- Stroke Cell
- Sleep Apnea
- Sickle Cell

Data for Medical History

©2013, American Heart Association
Know Your Population

Initial Exam Findings

- % of Patients
- Time Period
- Alteration of Consciousness
- Aphasia/Language Difficulty
- Other neurological symptoms
- Neurological sign/symptom
- No
- None of the above

All WI Hospitals - 2017
Length of Stay

![Length of Stay Bar Chart]

- All Patients
- Acute Ischemic Infarction
- Transient Ischemic Attack
- Subarachnoid Hemorrhage
- Intra-cerebral Hemorrhage
- Stroke of Uncertain Type
- No stroke-related diagnosis
- Elective Cardiac Intervention only

©2013, American Heart Association
LKW to Arrival Times
Tips to make the most out of your stroke survey

Susan Zimmermann  RN, MSN, CNRN, SCRN
Aurora BayCare Medical Center
Disclosure

I have no actual or potential conflict of interest in relation to this presentation
Remember your surveyors are “outside eyes on your program”  Don’t assume they know something.

The survey process strives to make your program better!
Gap Analysis

- Why is your program important for your area?
- What does your program offer your community
- Review your previous opportunities from your last survey.
  - Have these readily available for review
- Spend time planning for your survey
  - First time PSC 6-8 months
  - First time CSC 1 year
- What have you accomplished since last survey?

Utilize standards manual

- Pre
  - Gap analysis to standards and guidelines, resolution of any gaps
  - Apply 4-6 months before desired review date

- Visit
  - 30 days advance notification of date
  - One reviewer for two days
  - Organizations can work on process improvements, policies and procedures
  - Maintain records of training, inspection logs, and other documentation necessary for recertification

- Post
  - Recertification visit occurs 2 years after initial visit
  - To be scheduled within 90 day window around anniversary date
  - 7 days advance notice of date
Use the checklists provided by TJC to your advantage

Place recommended items in a binder for the surveyor

List of your TIA, AIS, IV – tPA, ICH, SAH, Endovascular (3-12 months)

Know your good charts in advance

List of all stroke patients in-house per diagnosis

Signed letter of support from your leadership for the program

Mission and vision of your program and scope of services

List of core team members (Those who make decisions for the program)
The Review Guide

- Job descriptions for stroke coordinator and medical director
- Document listing ED staff who participated in stroke education in last year
- Copy of all stroke protocols including transfer and diversion
- Stroke alert process for ED and inpatient
- Copy of order sets & CPG
- Patient education material and local resources available
- Current PDSAs
- Review “Opening Conference” & place in binder or opening presentation
- If it is required, have something to show how you meet

Don’t preprint copies of policies
Getting your team ready

- Talk the survey up months in advance
- Post stroke data in each department & for EMS
- Request a list of each staff member working that day in advance – speak to each one
- Make staff a tip sheet of common questions and your preferred answer and distribute liberally….
- Pick one member of each ancillary department stroke team member to be available for questions
- Explain tracer methodology to staff
- Mock surveys
- Credentialing and privileging
Tools and Tips

- Use all available tools provided
- Review the survey agenda
- Medical director should clear schedule for day(s)
- All staff and physicians ready to discuss what and how they complete stroke education
- Make it easy to locate CPG’s
- Stroke abstractors should be in attendance
- Show interrater reliability
- Peer review process should be multidisciplinary
CSC Additional Items

- Demonstrate Volumes
- Surveyor will spend extended time in imaging
- Post Hospital Care
- Multidisciplinary plan of care
- Caring for 2 complex stroke patients – All need to know
- Call schedules for neurosurgery (have ready to view)
- 24/7 IR scheduling and caring for 2 stroke complex pt’s
- Research
- CEA documentation and stroke education
Survey Pre-notification

• Let everyone know!
  • Send calendar invites with agenda

• Triple check all in-house stroke charts

• Review with Quality Director
  • Hospital notification process
  • Who is picking up surveyor?
  • Who will walk around with surveyor? *(Limit this)*
    • 1 who is good at chart navigation for stroke documentation
    • 1 leader/scribe

• Secure meeting rooms (need a secure room for surveyor belongings)
• Make copy of the opening presentation for each surveyor
• Copy of data presentation for each surveyor
Ready or not – here we come!

- Command center or leader for go-to items
- Make list of phone numbers for key people/units to be surveyed
- Scribe keeps track of:
  - Requested items
  - Time
  - Staff chosen for credentialing – notify command center ASAP
  - Patients traced and room & MRN
  - Questions asked during tracer
  - All staff names that spoke to surveyor
- Identify a patient to speak to surveyor
  - Personal stroke risk factors
  - Patient goals
  - Patient involvement with care/goals

Ready or not – here we come!
It’s Survey Day

Get there early 😊

Make sure your team/staff is ready!

Place survey items where you want them to sit

Ensure your presentation is ready to go

Display awards, posters, marketing material

Meals

Keep the surveyor on time

If CSC survey: meet with team at the end of the day to discuss findings and prepare for next day
Surveyor always asks...

The evidence based practice behind your dysphagia screen
How does your in-house stroke alert differ from ED?
How do you triage potential stroke at ED registration
NIHSS certification
Staff & physician stroke education (who gets what?)
How do you handle wake up strokes?
CPG’s
What does your patient handoff look like?
How does staff know PT/OT/ST goals?
When monitoring post Alteplase, what are you looking for?
What does your double sign off for t-PA look like?
CELEBRATE YOUR SUCCESS!!
Thank You