Comprehensive Stroke Center

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Disclosures
Objectives

• The differences between Primary and Comprehensive Stroke Center certification
• Why this is important to our patients and community
• Some of the “Rules” surrounding Comprehensive Stroke Center certification
Why Become a CSC?

• Improved Patient Care
• Demonstrates our commitment to quality care
• Top certification in Stroke
The Rules

• Team Approach
• Solid Plan
• Continuous Improvement
• Advanced Care
• Metrics
Team Approach

• Dedicated Stroke Team
• Interdisciplinary
• One Call Activation
ED Acute Stroke Algorithm

START

Patient enters ED with suspected stroke symptoms

Stroke Alert Protocol Activated

Immediate CT/CTA

CTP

Case Reviewed with Neurology Attending

PAGE 1

"Stroke Alert: Location, Physician @ Phone Number, Age, Gender, MRN"

Parallel Priority Tasks:
- ABC assessment
- VS assessment
- Clinical Assessment (not to delay CT)
- IV access (large bore) & blood draw for stroke alert labs (not to delay CT)

PAGE 2

(Assessment Page)
- "Stroke Alert Update: Location, CANCEL" OR
- "Stroke Alert Update: Location, NIHSS, MRN, Attending Neurologist Name"

- If NIHSS ≥ 6, Interventionist calls Neurology Attg (15 mins)
- If NIHSS < 6, Neurology Attg calls Interventionist PRN

PAGE 3

(Treatment Page)
- "Stroke Alert Update: Location, No Treatment"
- "Stroke Alert Update: Location, IV tPA"
- "Stroke Alert Update: Location, IA Therapy"
- "Stroke Alert Update: Location, IV tPA plus IA"

Time Goals:
- 15 minutes to neuro at bed and Assessment Page
- 30 minutes to IV tPA
- 45 minutes to Out of ED

Neurology Sr Resident directs Stroke Alert:
1) Identify themselves to ED team and RN (establish primary RN contact): "I am the Neurology Resident directing this stroke alert"
2) Obtain NIHSS - Assessment Page
3) Discuss with Attg - Treatment Page
4) Place order for IV tPA
5) Communicate plan to ED team and RN
6) For all NICU admits, communicate plan to Neuro NP (498-5298)
7) Facilitate transfer to ICU, Floor, or IA suite as rapidly as possible
8) For each patient consider candidacy for stroke trials

ED Team:
1) Early identification of specific geographic location or working telephone number for family contact.

The algorithm remains in effect for all appropriate cases, even when 2 or more present simultaneously. This is possible due to the availability of providers and imaging equipment.

Approved October 2013 by Stroke Team
Solid Plan

• Single line algorithm
• Plans A, B, C and Stroke Tsunami
• Full picture approach
  – EMS
  – Admission
  – Follow up
Continuous Improvement

- CPIC
- Peer Review
  - Nursing
  - Physician
- MM&I
Advanced Care

• Door to tPA in less than 45 minutes
• Rapid activation of Interventional team
• Imaging and Radiology available 24/7
• Dedicated Neuro ICU, step-down and acute care units
Metrics

• tPA
• Labs
• Stroke Core Measures
• Documentation
• Outcomes
Acute Interventions for Stroke

Volume of Cases

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Jan-Dec 2012 vs Jan-Oct 2013
tPA

• Door to IV tPA
  – Identify Strengths
  – Identify Opportunities

• New Vanderbilt Goal
  – 45 Minutes or less
  – Feedback
Door to IV tPA

Time in Minutes

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New goal starting Oct 1, 2013 is 45 minutes
IA

- Time to OR
- Time to Clot
- Time to Revascularization
- New role of Nursing in the OR
  - Knowledge of devices
  - Knowledge of techniques
IA Nursing Documentation

- Pupils-
- Speech-
- LOC-
- Grips-
- Pedal Pushes-
- Pain-
- Pedal Pulses-

- Time PreProcedure Neuro Check Performed:
- Time PreProcedure Pedal Pulse Check Performed:
- Time of Puncture:
  **Time to Clot:** (Time Catheter Reaches Clot) Ask MD:
  **Time of Revascularization** (Vessel becomes open) Ask MD:
  Time to TICI2B (Measure of how open vessel is) Ask MD:
- Time of Seal:
- Time of Post Procedure Neuro Check:
- Time of Post Procedure Pedal Pulses:
Labs

- Integration of Point-of-Care
- Order to Results <45 minutes
- Thinking change from “all” to “critical”
# Acute Stroke Orders

## Common Acute Stroke Orders:

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<th>1</th>
<th>Reason for Testing</th>
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Code Stroke Door to Lab Results Time Mar-Oct 2013 with New Order Sets

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Stroke Core Measures

• VTE prophylaxis
• Antithrombotics at Discharge
• Anticoagulation for Afib
• Thrombolytic Therapy
• Antithrombotics by end of day 2
• Statin
• Education
• Rehabilitation Assessment
Documentation and Outcomes

- Need versus want
- Time utilization
- Work flow
Rehabilitation

• Every Stroke Patient
• Assess or document why none is needed
• Speech
• Occupational therapy
• Physical therapy
• Driving exam
The Future

- New guidelines recently sent for review and comments
- Improved coordination from EMS-Discharge
  - Early Activation
  - Feedback loop
- Streamlining documentation with data
  - Gather what we need
  - Use what we gather
References

• http://www.jointcommission.org/certification/advanced_certification_comprehensive_stroke_centers.aspx

• http://stroke.ahajournals.org/content/44/3/870.full#ref-881
Questions?
Thank You!