Boot Camp for Primary Stroke Certification
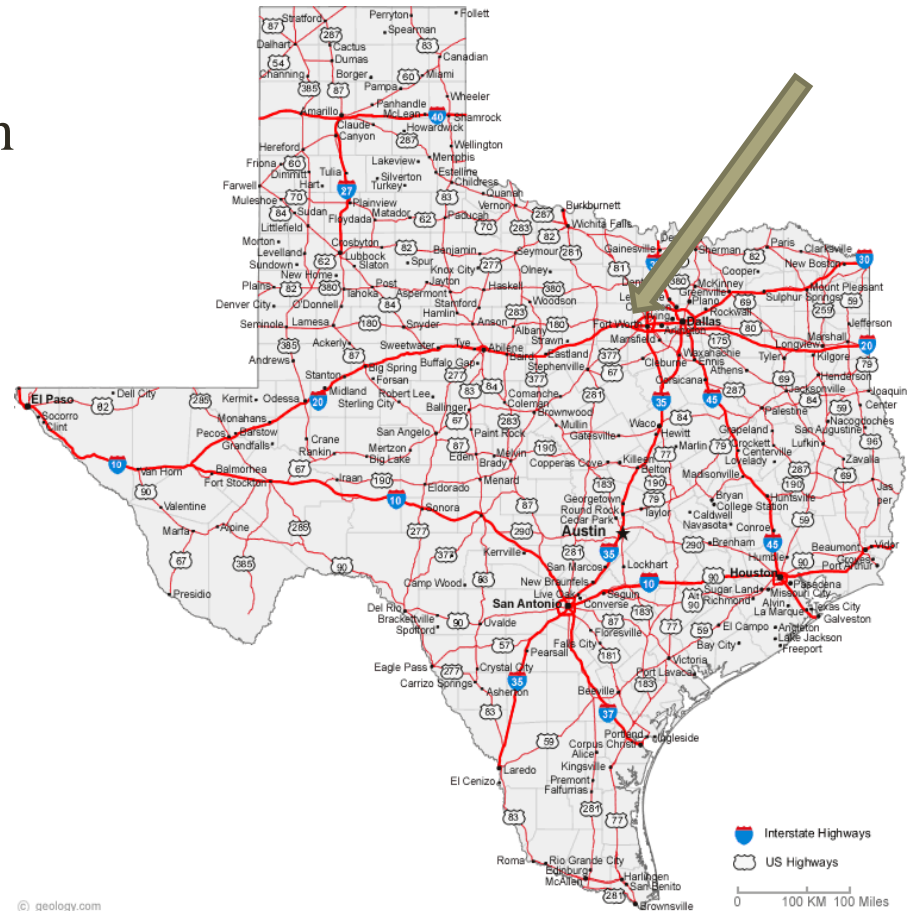
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Speaker Information

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Texas Stroke Institute

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Fort Worth Texas

No disclosures

Various slides are copyrighted

TJC Primary Stroke Certification Overview

- http://jointcommission.org
- Must be a JC accredited hospital
- Must have served minimum of 10 patients by time of review
- Must use a standardized process based on Current CPGs
- Minimum of 4 months of data

http://www.jcrinc.com/2014-certification-manuals/
DSC Stroke Certification Manual
DSC Review Process Guide

PSC Time Line

Texas Stroke Institute

<u>**Preliminary Planning**</u>
Hire Stroke Coordinator
Select Stroke Medical Director
Collect baseline stroke data (30 patients)
Establish Stroke Interdisciplinary Committee (meet monthly)
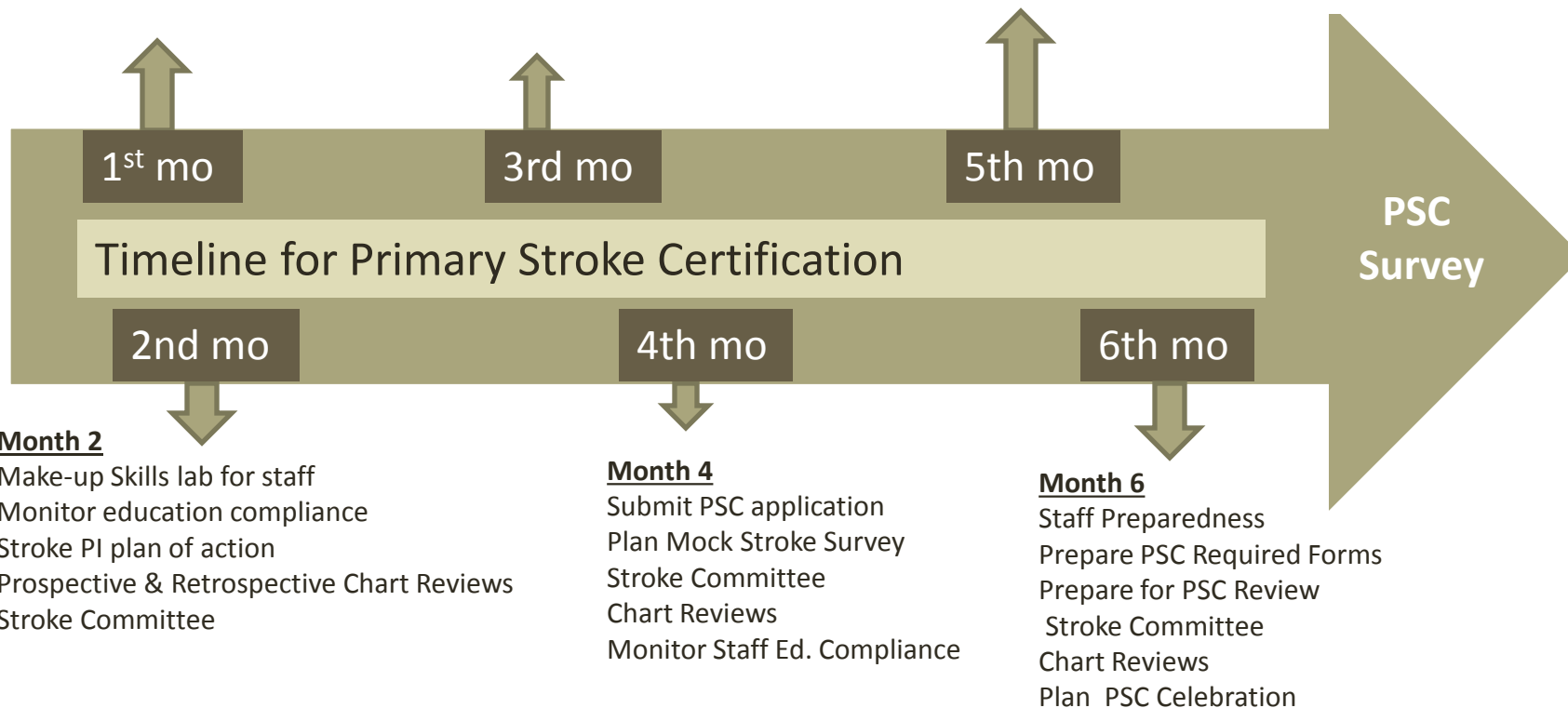Plan Education Requirements for Staff, EMS & Community

<u>**Month 1**</u>
Develop Acute Stroke Process
Implement Stroke Orders
Satisfaction Survey Process
Develop Stroke PI Process
Plan Skills Competency
Skills lab for staff
Assign Education Courses
Stroke Committee

<u>**Month 3**</u>
Communicate Stroke PI (Monthly)
Chart Reviews
Monitor Satisfaction Survey
Stroke Committee

<u>**Month 5**</u>
Prepare PSC Notebooks
Create Power Point Presentation for Site Review
Ensure Education Compliance
Stroke Awareness Activities (Stroke Hero Awards)
Stroke Committee
Chart Reviews

1st mo — **3rd mo** — **5th mo**

Timeline for Primary Stroke Certification

PSC Survey

2nd mo — **4th mo** — **6th mo**

<u>**Month 2**</u>
Make-up Skills lab for staff
Monitor education compliance
Stroke PI plan of action
Prospective & Retrospective Chart Reviews
Stroke Committee

<u>**Month 4**</u>
Submit PSC application
Plan Mock Stroke Survey
Stroke Committee
Chart Reviews
Monitor Staff Ed. Compliance

<u>**Month 6**</u>
Staff Preparedness
Prepare PSC Required Forms
Prepare for PSC Review
Stroke Committee
Chart Reviews
Plan PSC Celebration

Planning the Stroke Program

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- Prepare Gap Analysis
- Identified the Stroke Coordinator and Medical Director
- Collecting baseline stroke data elements
- Established Stroke Committee
- Create Code Stroke Response Team (24/7)
- Outline and identify the annual stroke educational for staff, EMS, and community
- Choose Stroke CPGs

Gap Analysis

- Responsible parties
- Standards description
- Met/Not Met Criteria
- Critical need
- Comments
- Time frame
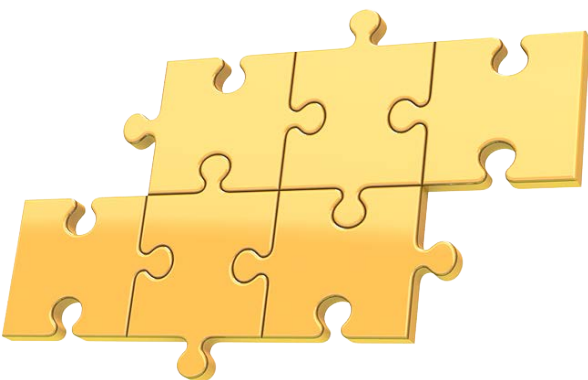
| Line #	RESPONSIBLE STAFF	STANDARD PM= Program Management	MET	NOT MET	CS = CRITICAL STANDARD and ONGOING PROCESS REVIEW	P= Policy / Protocol M= Measurement	Division Responsible	The Comprehensive Stroke Center (CSC) shall establish, document, implement and maintain the CSC Program and continually improve its effectiveness in accordance with the requirements of this Certification Program	COMMENTS / NOTES
1	Eberlein, Sharon	PM 1	SD			P=Minutes	Leadership	Senior Management is responsible and accountable for ensuring that:	
2	Eberlein, Sharon	CR.1a	MET			P	Leadership	The CSC is in compliance with all applicable Federal and state laws regarding the health and safety of its patients.	
3	Eberlein, Sharon	CR.1b	MET			P=License	Leadership	The CSC is licensed by the appropriate state or local authority responsible for licensing of CSC.	
4	Eberlein, Sharon	CR.1c	MET		Ongoing	P=HR Files	Leadership	Criteria include aspects of individual character competence training, experience and judgment are established for selection of individuals working in CSC, directly or under contract.	All staff assigned to work with Comp. Stroke patients, must have training documented in HR files of training on care of CSC patients. Everyone must have eight hours of education.
5	Eberlein, Sharon	CR.1d	MET			P=HR Files	Leadership	Personnel working in CSC are licensed or otherwise meet all applicable Federal, State, and local laws.	HR Files, Lic, CPR, ACLS, etc
6	Eberlein, Sharon	CR.1e	MET			P	Leadership	Responsibilities and authorities are defined and communicated within the CSC	Need a organizational CSC chart and outline of job duties
7	Eberlein, Sharon Harrison, Cheryl	CR.1f (1)	SD		CS	P=MEC Minutes, BOT, Contract	Leadership	Appointment and qualification of the medical director for the CSC	Medical Director is Dr Cravens, the CSC Program Director will be TSI/Dr Nair
8	Eberlein, Sharon	CR.1f (1)	MET			P=MEC Minutes, BOT, Contract	Leadership	The CSC medical director shall be a Neurologist, Neurosurgeon, Neurointerventional Surgeon, or other medical professional with qualifications as defined for diagnosing and treating cerebrovascular disease.	Medical Director is Dr Cravens, the CSC Program Director will be TSI/Dr Nair
9	Eberlein, Sharon	PM 2	SD		CS	P=Minutes	Leadership	Management Commitment: Senior management shall provide evidence of its commitment to the development and implementation of the CSC Program and continually improving its effectiveness by:	
10	Eberlein, Sharon	CR.1	MET			P=Scores	Leadership	Communicating to the CSC the importance of meeting customer as well as statutory and regulatory requirements	
11	Eberlein, Sharon	CR.2	MET				Leadership	Establishing the CSC Program and ensuring that objectives are established	P/P revised for CSC and need to go through the policy and forms process. Objectives are not written
12	Eberlein, Sharon	CR.3	MET				Leadership	Conducting Program reviews and ensuring the availability of resources	No written process of ensuring available resources This will include the process for bed availability, Angio Suite availability
13	Eberlein, Sharon	PM 3	SD					Program Management: The CSC shall:	
14	Eberlein, Sharon	CR.1	MET			P=Policies	Leadership	The CSC shall determine the processes needed for the CSC Program and the application throughout the CSC	Need to have the p/p written
15	Davis, Linda QM	CR.2	MET			P=Measurement		The CSC determines the criteria and methods needed to ensure that both the operation and control of these processes are effective.	Need to have the p/p written
16	Ikeler, Sharon Harrison, Cheryl	CR.3	MET			P		The CSC ensures the availability of resources and information necessary to support the operation and monitoring of these processes.	Need to have the p/p written
17	Davis, Linda QM	CR.4	MET		Ongoing	P=Measurement		The CSC shall monitor measure where applicable and analyze these processes and implement actions necessary to achieve planned results and continual improvement of these processes	04-03-13 Revised the CSC stroke dashboard. To be reviewed by Elaine
18	Davis, Linda QM	QM.1	MET		CS	P=Measurement		Quality Management: The governing body, medical staff, and administrative officials are responsible and accountable for ensuring that the CSC implements and maintains an effective quality management system. This quality management system shall ensure that corrective and preventive actions taken by the CSC are implemented, measured and monitored. In addition to any other Quality management Systems standard, the CSC is required to comply with QM1 at all times as a part of its Quality Management System.	need hospital organizational chart and the policy/by laws

Define Stroke Core Team

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- Stroke Coordinator
- Stroke Medical Director (preferred neurologist/neurosurgeon)
- Job Descriptions
- Clinical Competencies
- Education Requirements are 8 hours for core team members

2014 Standard/Process for Stroke Core Team per TJC is:

- 8 hours of CE as defined in DSDF.1
- Roles and Responsibilities are documented along with stroke team duties and assignments DSPR.1-4.a
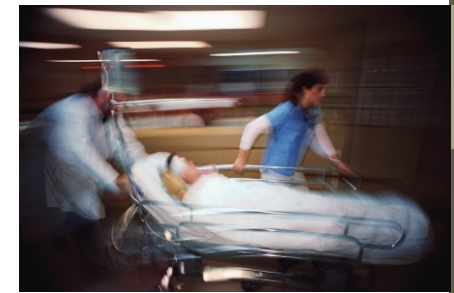
Code Stroke Members

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- Stroke Coordinator / Designee
- Neuroscience Nurse Practitioner
- ED Physician (ED only)
- ED Nurse
- Lab Tech
- CT Tech
- EKG Tech

Stroke Box

- tPA
- Dosing guide
- 60 ml syringe - 1
- Twinpak blunt needles -10
- 3ml syringe – 3
- 5ml syringe – 3
- 10 ml syringe -3
- Labetalol/Cardene

- 20ml syringe -3
- Portless IV tubing
- Alcohol pads
- 50ml NS bag
- Label for tPA stating dose
- Charge sheet
- "ER assessment of stroke book

Code Stroke Activation Data Requirements

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ERMD assessment	**15 minutes**
Door to CT Interpreted	**45 minutes**
Door to CXR completed	**45 minutes**
Door to EKG completed	**45 minutes**
Door to Lab completed **2014 includes troponin, blood glucose on every patient presenting with stroke symptoms**	**45 minutes**
Door to TPA **Must document reason why patient did not receive TPA** **2015 IV TPA is given within 60 min at least 50% of the time**	**60 minutes**
Neurosurgery Availability **2014 written plan /transfer agreements, on call schedule**	**120 minutes**
2014 MRI/MRA/CTA interpreted within 2 hours of completion. If these tests are ordered must be completed as soon as possible For <u>post-acute</u> stroke patients, brain MRI and vascular imaging a MRA or CTA are available when clinically indicated to determine or guide treatment choices	**2 hours**

Stroke Database

- Discharge diagnosis for stroke
- Minimum of 10 medical records and 4 months of data
- Action Plan for each standard (PDCA)
- Date of admission and discharge with name, age, gender, ethnicity, diagnosis, other essential data
- Maintain a stroke data base

NeuroBase©

Patient Process Flow

St. Elsewhere
Patient Process Flow
Patient ID:1205' DEMO

DEMOGRAPHIC INFORMATION

Outcome Measures	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Totals
Percent Mortality	9.524	50	0	10	10.25 6
Median LOS	3	7	7.5	9	6
Average Age	46.57	24.5	40.5	33.9	41.26
Greater than 55	28.57 1	0	16.66 7	20	23.07 7
Number of expirations	2	1	0	1	4
Number Survivors	19	1	6	9	35
Percent in this group	53.85	5.13	15.38	25.6 4	97.5
Totals	21	2	6	10	39

POWERED BY: OUTCOME™

Required and Recommended Data

- Stroke Performance Measures

    New in 2014 Dysphagia Screening

- Acute Response Times
- Action Plans
- Perception of Care
- Length of Stay
- Order Set Usage
- Aspiration Pneumonia
- Falls
- Patient Outcomes
- Transfers to CSC

Stroke Education Requirements

- Stroke Core Team
- ED Practitioners
- Stroke Unit Nurses
- Therapy Services
- Radiology Department
- Laboratory Department
- Ancillary Staff
- EMS Education
- Pharmacy
- Case Management
- All physicians that provide stroke care

Time is Brain

Acute Stroke Processes

Clinical Practice Guidelines

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- Recommendations for the Establishment of Primary Stroke Centers
- Guidelines for Early Management of Patients with Acute Ischemic Stroke
- Guidelines for Prevention of Stroke in Patients with ischemic Stroke
   or TIA 2006 and Update2008
- Comprehensive Overview of Nursing and Interdisciplinary Care of the Acute Ischemic Stroke Patient
- Implementation Strategies for EMS within Stroke Systems of Care
- Guidelines for the Management of Spontaneous Intracerebral Hemorrhage
- Expansion of the Time Window for Treatment of Acute Ischemic Stroke with IV tPA
- Recommendations for the Implementation of Telemedicine Within Stroke Systems of Care

   Protocols for emergent care of patients with ischemic and
   hemorrhagic strokes are reviewed for <u>current evidence at
   least annually</u> using an interdisciplinary approach

First Month Planning

- Develop acute stroke process
- Implement stroke order sets
- Develop stroke PI process with Quality Department
- Plan stroke skills fair (stroke competencies)
- Plan stroke outreach/ community events
- Stroke Committee monthly meeting

PSC
Planning

Acute Stroke Process

- Define acute stroke
- Process for stroke activation
- Stroke patient route
- Use of consents or not
- Mixing and administration of tPA
- Code stroke policy
- Training of nursing on tPA and post tPA patients
- Endovascular eligible patients
- Transfer to CSC

Acute Stroke Process

- CSC offers endovascular stroke rescue for AIS
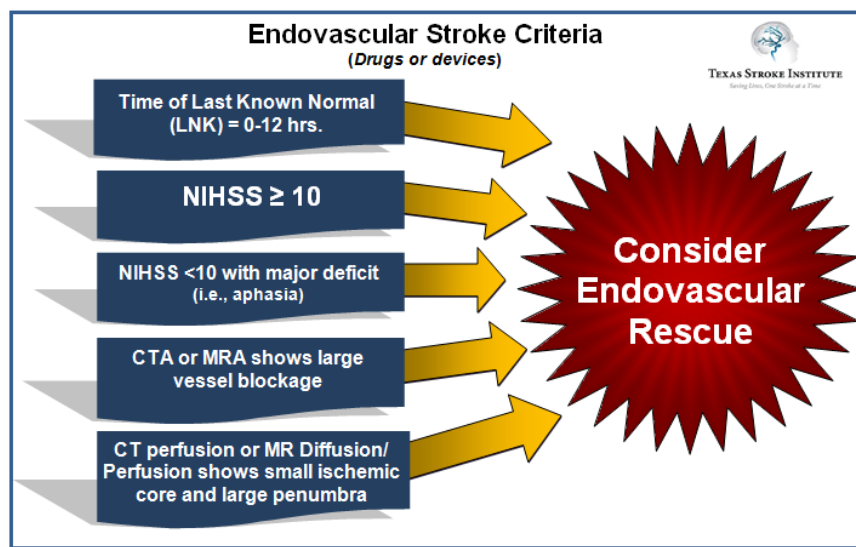- CSC offers emergent procedures for hemorrhagic strokes

Mechanical Thrombectomy/Treatments for Ischemic Stroke

Penumbra · Solitaire · Trevo · Merci · tPA

Subarachnoid Hemorrhage · Intracranial Hemorrhage · Arteriovenous Malformation · Aneurysm

Endovascular Stroke Criteria
(*Drugs or devices*)

- Time of Last Known Normal (LNK) = 0-12 hrs.
- NIHSS ≥ 10
- NIHSS <10 with major deficit (i.e., aphasia)
- CTA or MRA shows large vessel blockage
- CT perfusion or MR Diffusion/Perfusion shows small ischemic core and large penumbra

Consider Endovascular Rescue

Comprehensive Stroke Centers

- Have 24/7 Stroke Team
- Personnel with expertise – Interventional Neuroradiology
- Vascular Neurology, Neurosurgery, advanced practice nurses, rehabilitation specialists, critical care specialists
- Dedicated Neuro-Intensive Care Unit
- Advanced diagnostic imaging techniques (MRI, CTA, TEE, TCD)
- Capability to perform surgical and interventional therapies such as
  - stenting and angioplasty of intracranial vessels, carotid endarterectomy, aneurysm clipping and coiling, endovascular ablation of AVM's and intra-arterial reperfusion
- Educational and research programs

Stroke Order Sets

Patient Arrives in the ED with Stroke Symptoms
Activate Brain Attack Team

*Sudden onset of any **ONE** of the following:*
Central facial droop / paralysis
Unilateral facial numbness
Vision loss/ Visual field cut
Double vision and Vertigo
Slurred speech / Dysarthria
Language deficit / Aphasia
Unilateral arm / leg weakness
Loss of balance / Incoordination
Severe Headache (Suspect SAH)
Decreased Level of consciousness

Lab Evaluation: Two 20-18G IV lines,
BMP, PT/INR, PTT, CBC, Urine b-HCG (Woman <50 years)

Emergent CT Imaging
STROKE 1- Non-contrast CT Brain/Head
(on all patients including transfers from referring facility)

No Bleed

Bleed

Clinical Evaluation:
Time from Last Known Normal, NIHSS, See BP Management Protocol

< 4.5 hrs | **4.5-12hrs** | **> 12 hrs**

See <4.5 hrs Pathway Green Envelope

See 4.5-12 hrs Pathway Yellow Envelope

See >12 hrs Pathway (includes all TIA's and unknown last known normal) Blue Envelope

See Non-traumatic Sub-arachnoid Hemorrhage Pathway Red Envelope

See Non-traumatic Intracerebral Hemorrhage Pathway Purple Envelope

See Extradural, Subdural or Epidural and all Traumatic bleeds Grey Envelope

Possible Brain Attack Team Members
ERMD, ER Nurse, Lab, CT Tech, ER Tech,
Hospital Supervisor, Bed boards, ICU Charge nurse

tPA Orders
AIS Orders
SAH Orders
ICH Orders

Stroke PI Process

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- Use FOCUS-PDCA *(Find-Organize-Clarify-Understand-Select-Plan-Do-Check-Act)*

- Perform both concurrent and retrospective reviews

- Management Data Collection Tool (GWTG / Neurobase)

- Hospital Stroke Registry (home grown system, Excel)

- % Review for all stroke types

- Inter

- Data submission to the state (if required)

- Data reporting structure: Stroke Committee, Neuroscience Committee, PI Steering Council, Division Meetings, Medical Executive Committee and the Board of Trustees

Figure 1: The Plan-Do-Check-Act Cycle
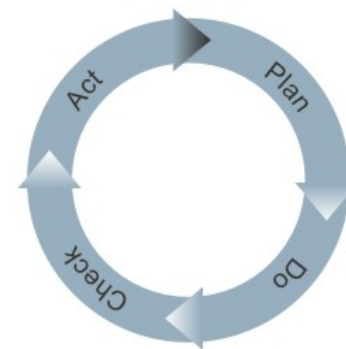
Plan Skill Fairs & Community Activities

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Skills Fairs

  Story Boards

  Return Demonstrations

  Mock Code Strokes

  Skills Competency Check Offs

Community Events

  S/S Stroke

  911 Activation

  Risk Factors

  Stroke Treatment

Communicates to the participant the result of its family risk assessment (DSSE.3)
New in 2014
Community Resources
Palliative Care
Respite Care
Vocational Rehab
Stroke Support Groups
Hospice Care
Rehabilitation Services

Second Month Planning

- Make-up Skills lab for staff
- Monitor education compliance
- EMS Education
- Stroke PI plan of action
- Prospective & Retrospective Chart Reviews
- Stroke Committee monthly meeting

D2N Times

EMS Field Blood Draws
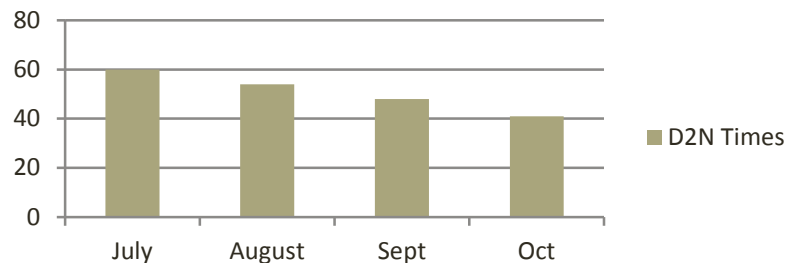
Stroke Education Grid

Unit/Practioners	Competency - Stroke	Demos Robotic Device	Common Module 1 - Stroke Basic	Stroke Locator Number	Stroke Competency Tutl Stroke Scale Quiz Study	Acknowledgement Regulation Competency Module of tPA	Dysphagia NTD Dysphagia Screening	Dysphagia Competency Inservice - Give	NIHSS WEBSPHERE	RTO Stroke Assessment (Education)	Badge Buddies
ED Nurse	x	x	x		x		x		x	x		x
ED Paramedic/Tech	x	x	x		x							x
ED Physicians/PA's	x	x		x	x	x						x
ICU	x		x		x		x	x		x	x	x
Educator												x
COA			x		x		x			x		x
PCU/MST	x		x		x			x			x	x
PCU/MST TECHS	x		x		x							x
Womens Services (all areas)												x
SDS/OR/PAT												x
PACU												x
Office, Facility/Supply Support/Security/ Volunteers												x
Ancillary Depts (Lab, Radiology, Respiratory, PT/OT)					x							x
Special Procedures (ECHO, EKG)												x
Cath Lab												x

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ED Practitioner Education

2014 TJC PSC ED Practitioner Education Compliance

ED Practitioners (MDs Nurses, PAs)	Computer Based Learning (CBL)			2014 Stroke Compentency				
	Genentech Module 1: Stroke Basics (80%)	Genentech Module 3: Activase (100%)	NIHSS (80%)	Acute Stroke Process (100%)	Activase Contraindications (100%)	Activase Complications (100%)	Activase Patient Education (100%)	Dysphagia (80%)
% Compliance (date)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

ED Practitioner New July 2014 (DSDF1)

Knowledge of the process used to activate brain attack team

100% Education Compliance

•tPA Administration (3 h)

• Acute Stroke Protocols/Orders

•Acute Stroke treatments < 4.5 h from LKN

•Indications for IV tPA

•Contraindications to IV tPA

•Education to be provided to patients and families regarding the risks and benefits of IV tPA

•Signs and symptoms of neurological deterioration post IV tPA

•Signs and symptoms of angioedema

EMS Education & Follow Up

- Acute stroke process
- Stroke data to include D2N times
- Vital Signs/Neuro checks for D/S patients
- Transport of tPA patients to CSC

Chief Complaint: "SHE'S NOT ACTING RIGHT"

Code Stroke

Diagnosis: INTRACRANIAL HEMORRHAGE, ARTERIOVENOUS MALFORMATION

Disposition:

☐ Admission   ☒ Transfer to another facility   ☐ Expired   ☐ Discharge Home

Door to CT Results: N/A   NIH score: N/A

☐ TIA   ☐ Ischemic Stroke   ☐ Hemorrhagic Stroke   ☐ Non-Stroke Diagnosis

tPA

☐ Administered   ☒ Exclusion: HEMORRHAGIC STROKE

☒ Referred for further intervention

PATIENT TRANSFERRED EMERGENTLY TO COMPREHENSIVE STROKE CENTER.

Your facility transferred a brain attack patient to Plaza Medical Center with a stroke diagnosis.
Our team wanted to provide you with an update on your patient's condition.

I.P. was sent to our facility on 07/24/2014 for an ICH secondary to possible AVM rupture. At

Chart Abstract Concurrent / Retrospective Review

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Stroke Abstraction ←

tPA Abstraction →

Left form

Arrival: _____ **Stroke Type:** _____ **Code stroke:** _____ **Circle One:** <3 <4.5 <6 <12 >12

BP:___/___
HR:_____
HT:_____
Zip code:_____ WT:_____
Race:____ Hispanic: Y/ N BMI:_____
Admit Date/time:_____/_____ Admit MD:_____
ERMD_____Neurologist:_____
TSI:_____Neurosurgeon:_____

Last known to be well: __/__/__ , . □ Unknown
If TIA duration of sxs:_____place cva occurred_____
Triage:_____
ED Phys. at bedside time:_____ w/in 5 min Y/N/NA
Mode of arrival: □ Pvt Car □ EMS □ Unknown
If EMS Name provider :_____
    Run sheet on chart: Y / N / NA **IRB STUDY:** Y / N
Transfer from another facility: Yes _____ / No
If yes did pt. arrive with documentation: Y/ N / NA
Page Neurologist: _____ Return Call _____min_____
Page Neurosurgeon_____Return Call _____min:_____
Page TSI:_____Return Call_____ min:_____

M22 Admitted to stroke unit: Y / N Unit: _____
M22 Admitting Diagnosis: ICD- 9 Code _____
Order Set: Y / N Bridge Adm. Color: _____
M 1: Initial NIHSS (Ischemic or TIA): Y / N : A___/D___
    GCS:_____

ACUTE STROKE TURN AROUND TIMES (Acute only)
Lab: Interpreted time ____ min_____
    INR:_____ CRT:_____ BSG:_____ EMS Blood: Y / N
EKG: Interpreted time ____ min_____
CT: Interpreted time ____ min_____ CT initiated:_____
MRI: Brain Attack order_____ comp_____ min_____

Middle form

PMH: □ None
A-fib/ flutter/ Dyslipidemia/ CAD/ Prior MI / Carotid Stenosis/ HF/
Smoker/ Pregnant (or up to 6 wks post- partum)/ DM/ HTN/ Previous CVA
or TIA/ Prosthetic Heart Valve/ PVD/Sickle Cell/Obesity/CABG/Fam Hx
CVA/Chronic Renal Insuffiency (SCr>2.0)/ depression / sleep apnea
Medications prior to admission: □ None or unknown TRIG:_____
Antiplatelet / Anticoagulation / Antihypertensive / CHOL:_____
Diabetic Med / Cholesterol-Reducer / anti depress. HDL:_____ AIC:___

ISCHEMIC DATA
M 4: Multimodal Image (CT/CTA or MRI/MRA) w/in 6 hrs.LNK Y/ N/ NA
    If yes, Arrival Time_____ Start _____Total Min_____
M 5: Endovascular eligible, but not done. Why documented? Y / N / NA
M 6: Acute Ischemic Pt. requiring Endovascular procedure Y / N / NA
    If yes, Arrival time _____ Start Time _____ Min _____
M 8: sICH post endovascular procedure (w/in 36 h) Y/ N/ NA
M 11: Intracranial angioplasty &/or stenting for atherosclerotic disease w
    Stroke or death w/in 30 days Y/ N/ NA

CEA DATA
M 10: CEA, carotid coiling/stenting w stroke/death w/in 30 days Y / N / NA

ANEURYSMAL SAH DATA:
Did patient arrive within 48 hours of symptom onset Y/N/NA
Initial GCS: _____ Fisher Score: _____
M 12: Initial Hunt-Hess grade: _____ / ND / NA
M 13: Total Time_____ Hours. (From admit to start of procedure
intended to obliterate ruptured aneurysm) Only patients who arrived
within 48 hrs of onset where hemorrhage directly led to admission
M 14: For aneurysmal SAH arriving w/in 48 hrs of bleed. Coil or clip not
    Started in 36 hrs of arrival & documented why not. Y/ N/ NA
M 15: (SAH/ Red) w aneurysm: Nimodipine w/in 24 hrs x 21d. Y /N /NA

Right form

MR # _____ Date of IV tPA: _____ LKN time:_____ **Time Code Stroke Called :**
ER Nurse: _____ ERMD: _____ Neurologist: _____
Use this form to verify tPA Protocol (post tPA vital signs and neuro checks) was followed

NOTE: Time of first V/S and Neurocheck is 15 minutes after tPA bolus

| Every 15 min x 2 | | | Time of IV tPA | Every 1 (one) hr x 16 hrs | | |
Time	V/S	Neuro Check	Was BP >	Time	V/S	Neuro	Was BP > 180/105?
		Full					

| Every 30 min x 6 hrs | | | |
Time	V/S	Neuro Check	Was BP >

Note: If b/p > 180 systolic or 105 diastolic patient should be on a Cardene drip

tPA Protocol Violations:	Yes	No	Comments
1. Patient weight documented			
2. Two Nurse Signatures verifying tPA dose prior to administration			
3. Initial **Full NIHSS** (prior to IV tPA)			
4. NIHSS 30 minutes post IV tPA (**Full NIHSS**)			
5. NIHSS at discharge			
6. Vital Signs (prior to IV tPA)			
7. B/P was below 185/110 prior to IV tPA			
8. Documentation in MR for written materials given to patient/family			
10. Post IV tPA was B/P < 180/105 (36 hrs from tPA)			
11. If B/P was > 180/105 was Labetalol and/or Cardene administered within 15 minutes			
12. tPA consent signed prior to tPA (if applicable)			
13. Door to Needle < 60 minutes (**Door time _____ Bolus**			
14. Correct IV tPA dose was administered (0.9 mg/kg; 10% as a bolus over 1-2 min followed by drip over 1h) **Total dose given _____** (			
15. Was the B/P > 100/60 (36 hrs from tPA)			
16. Was Antithrombotic (ASA, Plavix or Aggrenox) given 24 hrs after tPA?			
Post IV tPA complications:	Yes	No	Comments
1. sICH within 36 hours of tPA bolus			
2. Angioedema			
Protocols Violated (list):			

Comments: Identify Plan of Action for improvement on back

Stroke Dashboards

- ED metrics
- PI metrics
- Volumes
- LOS
- tPA data
- Transfers
- Order set usage
- Other

PI Action Plans

- Focus Review
- Plan Do Check Act
- Graphs
- Grids

Stroke Committee

- Schedule monthly committee meetings

    Stroke Medical Director needs to sign the minutes

- Assign a note taker
- Ensure all departments are represented including EMS,

    Therapy, CM/SS, Dietitian, Pharmacy, etc.

- Have set agenda including PI data, education, department

    reports, upcoming events

- Make assignments with an end date

3rd and 4th Month Planning

- Submit stroke application to TJC
- Continue stroke chart reviews and abstraction of data
- Communicate Stroke PI to stroke units and ancillary departments
- Monitor stroke patient satisfaction by surveys
- Plan mock stroke survey
- Monitor staff education compliance
- Report data through reporting structure for hospital PI

  stroke committee ➡ PI/ Quality ➡ MEC ➡ BoD

Application for Survey

- Submit application electronically to TJC
- Part 1 – Ownership, demographics, types and volumes of stroke patients

- Part 2 – Sent electronically by TJC (30 days to complete) PI measures, PI plan, preferred review dates, and current CPGs

* Remember to inform TJC of any changes in the program

Communicate Data
to Stroke Units and Others

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Meetings	Jan	Feb	March	April	May	June	July
Stroke PI Committee							
Stroke Team							
Executive Committee							
Leadership Team							
Quality Department							
Medical Executive Committee							
Board of Trustees							
Emergency Department Section							
Department of Medicine							
PCU/MST							
ICU							
Emergency Department							

Performance Improvement	- Must be continuous and ongoing throughout designation period -Must be available for review on a rolling two year period -Must be available for review at all times

Communicate stroke data throughout hospital
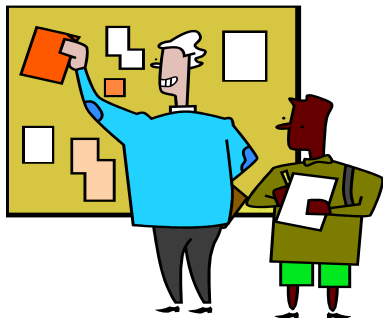
Stroke Perception of Care

- Terms

  HCAPHS (Hospital Care Quality Information for the Consumer Perspective)

  Gallop (founded by George Gallop in 1935 for opinion polls)

  Press- Ganey (playbook for winning on HCAHPS)

- Stroke specific discharge survey

  phone calls (may use sampling to meet standard DSPM.5EP.1)

  survey mail outs

  surveys at discharge

Patient:_____ MR/Acct:_____/_____ Discharge Date_____ Follow up Phone Call Date_____ Interviewed by:_____	Very Satisfied		Not Satisfied
1. The nursing staff, physicians, and therapists were able to help you understand your diagnosis and plan of care for stroke/TIA			
2. You were advised of and given resource materials regarding the signs and symptoms of stroke, and to seek medical attention should you feel that you are having another stroke/TIA. (911 Emergency)			
3. The staff provided sufficient explanation about all discharge medications, procedures and therapies regarding stroke/TIA.			
4. You received assistance and sufficient explanation in planning for care after discharge, arranging home care or medical equipment or rehab services for stroke/TIA.			
5. Do you have a follow up appointment with your physician? Do you have any future procedures or diagnostic tests ordered? If so with who?			

5th & 6th Month Planning

- Creating opening conference power point
- Follow up on mock survey
- Ensure education compliance
- Prepare stroke notebooks

  Education, community, PI data, stroke committee

  meetings, EMS communication & follow up
- Chart Reviews

  choose closed records for review (include tPA records)
- Create stroke pocket cards for staff
- Staff preparedness for survey readiness
- Identify staff that will speak with the surveyor

TJC Opening Conference Power Point

TEXAS STROKE INSTITUTE

- Hospital overview
- Program overview with mission, goals, objectives
- Program structure and integration with hospital structure
- Program leaders and stroke team members
- Target population and service area
- Clinical practice guidelines use in stroke management
- Program development and evaluation
- Community outreach
- EMS collaboration
- PI processes and evaluation of the program

Stroke Notebooks

- Stroke Survey book
- Education book
- Community Events/Lectures
     Outreach calendar
- EMS Collaboration/Follow Ups
     EMS educational offerings
- PI dashboards

TEXAS STROKE INSTITUTE

Comprehensive Stroke Certification
Survey Notebook   2013

1	Agenda
2	Session Attendees
3	Organizational Chart
4	Mission Statement, Goals and Objectives of Stroke Committee
5	Copy of Presentation
6	Stroke Program Management
7	Acute Stroke Performance Measurement
8	Performance Improvement Plan
9	Record of PI being Reported
10	Stroke Measures Dashboard
11	Stroke Code Protocols
12	Stroke Order Sets
13	Meditech/Stroke Patient Pathways
14	Stroke Patient Log
15	Stroke Patient Education
16	EMS Education
17	Stroke Staff Education
18	Community Education
19	Media
20	Physician Information

2014 PI Dashboards Processes

October 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 NCTRRAC	2	3	4
5	6 Neuroscience Symposium	7 Glen Rose ED stroke education Glen Rose Senior Center stroke s/s	8	9	10 TCU shadow	11
12	13 Columbus Day	14	15 Physician card swap TSI Glen Rose Med Ex.	16	17	18
19	20	21 Weatherford Regional Stroke meeting	22	23	24	25
26	27	28	29	30	31Wise Regional stroke prep for PSSC Halloween	

Survey Ready Employees and Inpatient Strokes

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Stroke Survey Employees

Emergency Department				
	1			first to interview (stroke champion)
	2			
	3			
	4			
	5			
ED Physician				
Neuro ICU				
	1			first to interview (stroke champion)
	2			
	3			
	4			
	5			
3E Neuro Tele				
	1			first to interview (stroke champion)
	2			
	3			
	4			
	5			
6West				
	1			first to interview (stroke champion)
	2			
	3			
	4			
	5			
Neuro IR				first to interview (stroke champion)

Plaza Medical Center
Stroke Program
In-house Stroke Population

F= Family gave permission for Joint Commission to discuss stroke program

Neuro ICU						
Pat_Name	Date of Admission	Principal_Diag_Code	Age	Sex	Ethnicity	TPA Y/?N

Neuro PCU						
Pat_Name	Date of Admission	Principal_Diag_Code	Age	Sex	Pat_Race	TPA Y/?N
						No

Med-Surg						
Pat_Name	Date of Admission	Principal_Diag_Code	Age	Sex	Ethnicity	TPA Y/?N

Discharged tPA patient						
Pat_Name	Date of Admission	Principal_Diag_Code	Age	Sex	Ethnicity	TPA Y/?N

Stroke Pocket Cards Examples

TEXAS STROKE INSTITUTE

Card 1:

Acute Stroke: LKN<12 Hrs
S/S: FAST: face, arms, speech, time/terrible HA
Acute Stroke Process:
--Activate Brain Attack team: lab, CT, MR, Radiology, ED Charge, ED MD, Stroke coord., ANP, TSI, Neuro IR [5 min seen by ER md] [15 min call returned by TSI]
--Lab evaluation: two 18-20g IV lines; (POC); BMP, PT/INR, PTT, CBC, urine β-HCG (<50) [TAT 45 min]
--Emergent CT (non-contrast): EMS bay straight to CT [TAT 45 minutes to interpret]
--Other DX studies: EKG, chest x-ray [TAT 45 min]
--Determine appropriate pathway (See Below)

No Bleed	Bleed
Green: <4.5 hrs (TPA eligible)	Red: Nontraumatic SAH
Yellow: 4.5-12 hrs	Purple: ICH
Blue: >12 hrs/TIA/Unknown LKN	Grey: Extradural, SDH, Epidural & traumatic

Treatment Options:
--IV TPA: 0-4.5 hrs from LKN
--IA TPA: 0-6 hrs from LKN
--Clot retrieval up to 12 hrs from LKN
   --Criteria: NIHSS >8 or if + aphasia hemianopsia
   --CTA/MR shows large vessel blockage
   --Brain attack MR show small ischemic core & Large penumbra (>20% mismatch)

Card 2:

TPA GUIDELINES: D2N GOAL OF 60 MINUTES
*First:*Determine Eligibility: lkn<4.5 hrs, no bleed on CT;Inclusion/exclusion criteria reviewed
Prior:
--Weight   --2 Large bore IVs
--NIH   --Blood sugar
--Thrombolytic info   --Dose calculated and
given to patient &   verified by 2 RNs
documented   (0.9mg/kg Max 90mg)
--Foley* (*if indicated*)   -BP<185/110mmHg
NEED NURSE PACKET AND ORANGE TACKLE BOX
*Administration:*10% of dose given as bolus over 1-2 minutes; remaining 90% given as gtt over 1 hr followed by 50cc NS given at same rate as gtt (designated IV site, PE lined tubing {nitro tubing}
During/Post: VS & NIH (full or modified) done q15 min x2hrs, q30 min x6hrs, q1hr x12 hrs
 --FULL 30 min post (slot 2 on flow) if there is NOT a 4ptimprovement notify TSI
--Strict BP management x36 hours post infusion BP<180/105 & >100/60 if outside must document intervention (if sbp>180mmhg give labetalol x1 dose then start cardene gtt if still not WDP)
--monitor for angioedema or signs of bleeding if occur: Immediately turn off tpa, Get stat ct of head w/o contrast, notify ERMD and TSI; stat labs: CBC, PT, PTT, type and screen & fibrinogen

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Card 3:

tPA INCLUSION Criteria:	
Acute Ischemic Stoke (CVA)	Measureable Neuro Deficit
Onset <3 hrs. before Treatment	18 Years or older

Exclusions Criteria for < than 3 Hours from LKN:

BOLDED ARE NEW RECOMMENDATIONS

Significant Head Trauma within last 90 days	CT shows multilobar infarct with hypo Density > 1/3
Prior Stroke/90 days	Suspected SAH
Non Compressable Arterial Puncture within last 7 days	**Significant Intracranial surgery < 3 mo.**
Intracranial Neoplasm	**Intracranial AVM**
Intracranial Malformation	**Intracranial Aneurysm**
History ICH	Intraspinal Surgery < 3 mo.
SBP > 185 despite Treatment	DBP > 110 despite treatment
Active Internal Bleeding	Acute Bleeding diathesis
Platelet count <100,000/mm3	Heparin within 48 hrs.
Abnormal/elevated aPTT	PT > 15 / PTT > 40
On anticoagulant w/INR > 1.7	On anticoagulant PT > 15
Glucose < 50 despite Treatment	

IF on direct Thrombin Inhibitor or direct Factor Xa Inhibitor:

Elevated aPTT	Elevated INR
Elevated Platelet Count	**Elevated ECT**
Elevated TT	**Elevated factor Xa**

Card 4:

tPA INCLUSION Criteria:	
Acute Ischemic Stoke (CVA)	Measureable Neuro Deficit
Onset <3 hrs. before Treatment	18 Years or older

Exclusions Criteria for < than 3 Hours from LKN:

BOLDED ARE NEW RECOMMENDATIONS

Significant Head Trauma within last 90 days	CT shows multilobar infarct with hypo Density > 1/3
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SBP > 185 despite Treatment	DBP > 110 despite treatment
Active Internal Bleeding	Acute Bleeding diathesis
Platelet count <100,000/mm3	Heparin within 48 hrs.
Abnormal/elevated aPTT	PT > 15 / PTT > 40
On anticoagulant w/INR > 1.7	On anticoagulant PT > 15
Glucose < 50 despite Treatment	

IF on direct Thrombin Inhibitor or direct Factor Xa Inhibitor:

Elevated aPTT	Elevated INR
Elevated Platelet Count	**Elevated ECT**
Elevated TT	**Elevated factor Xa**

Congratulations!
TJC Certified Primary Stroke Center

- Maintain PI data, dashboards, database
- Continue abstracts and trends
- Build stroke volume
- Monitor TJC website for updates
- Submit monthly data to TJC
- Continue to educate staff, EMS, and community

2013 STSL Class Champion - Sharon Eberlein