Queen Elizabeth II Hospital

QuICR
Quality Improvement & Clinical Research
Alberta Stroke Program

The Team

- **Darlene Peacock**: Stroke Coordinator
- **Lauren Black**: ED Clinical Coordinator
- **Jason Selzler**: DI Supervisor CT Scanning
- **Kathryn Hebner**: Manager Quality Patient safety AHS EMS, All North Zone

Changes Implemented

Changes:

- EMS stretcher to CT & back
- Stroke Team Activation
- Stroke Package for staff
- Parallel process flow algorithm
- Nurse driven, team oriented
- DI – specific protocol for acute/stat stroke
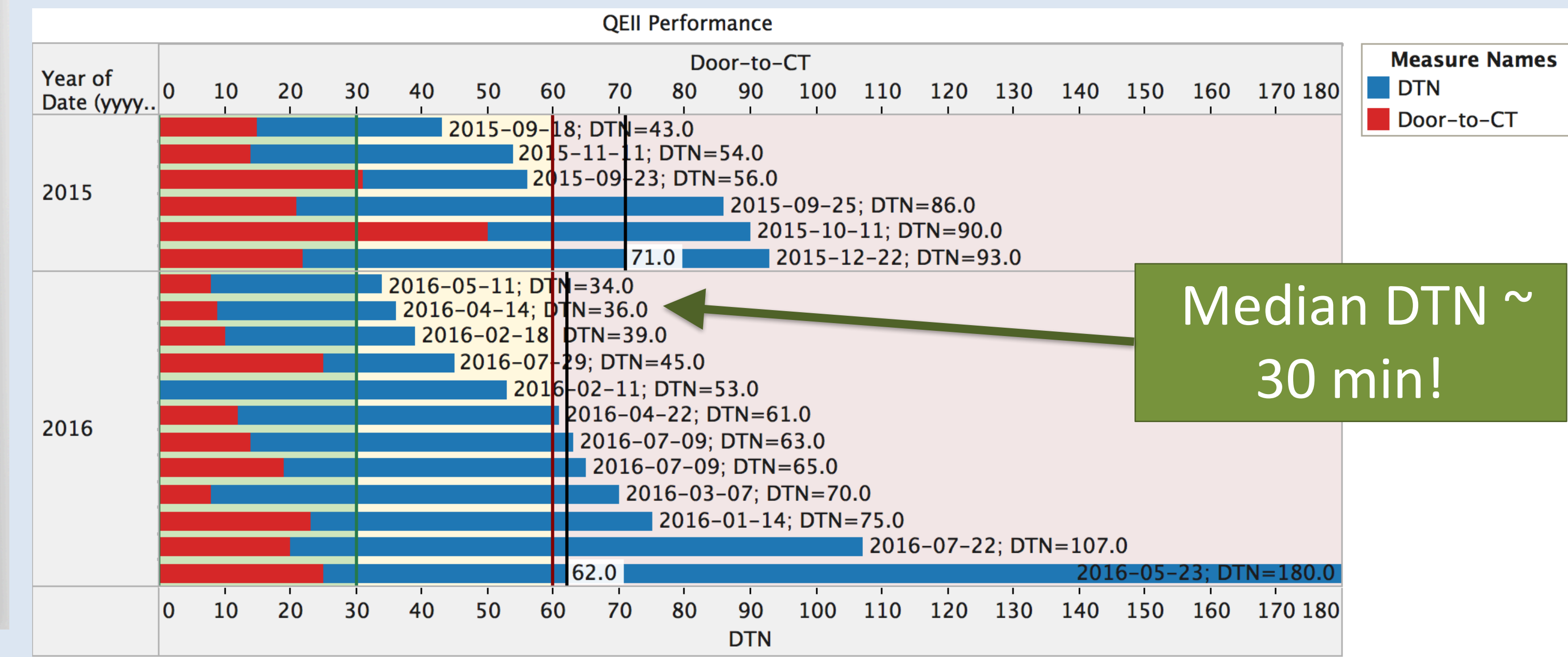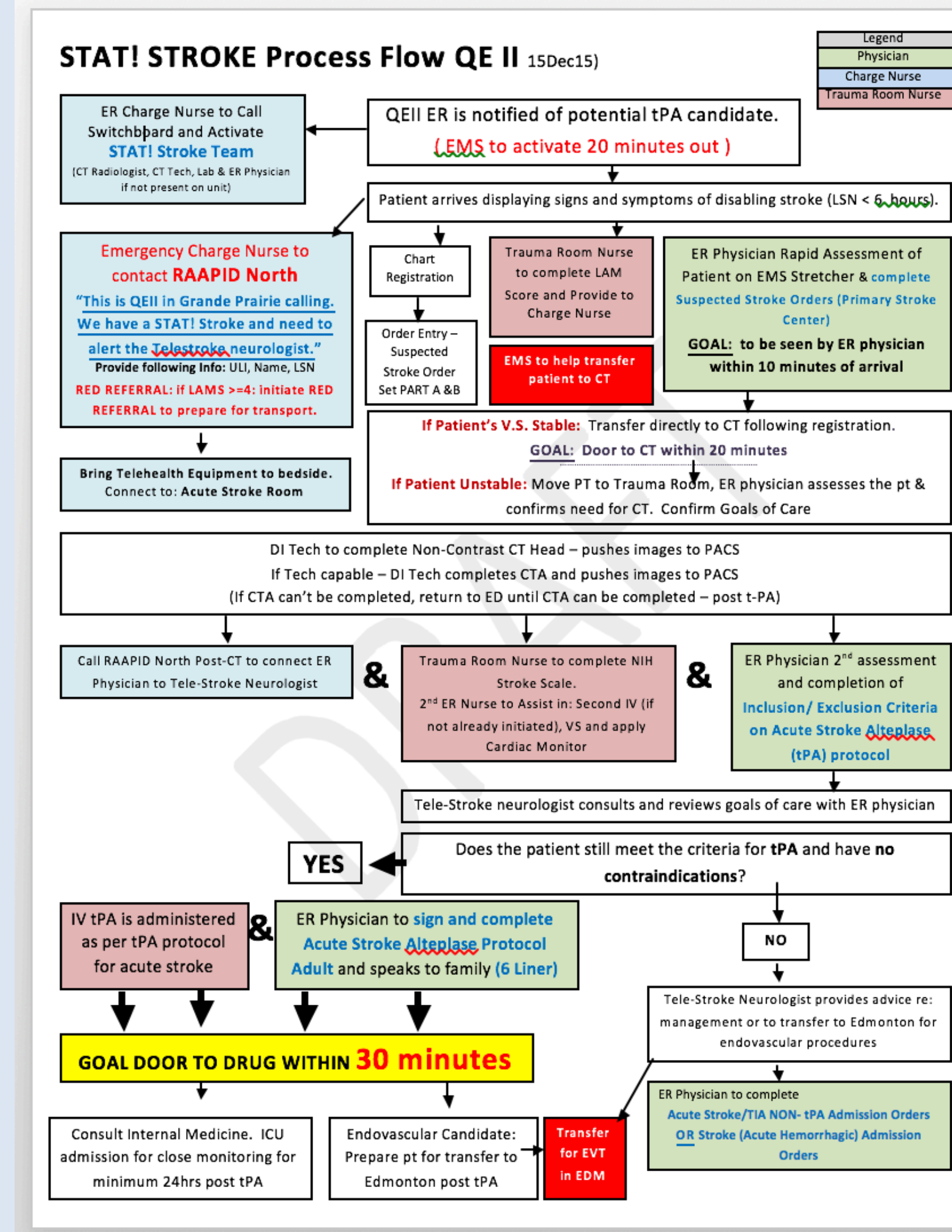
Other Improvements:

- Specific protocol for Acute STAT! Stroke for CT –images (direct transfer of images)
- Staff buy-in
    - Increased recognition for times
    - Excitement about STA and autonomy
- Increase in Education and Training
    - TORBSST
    - Stroke Care
- Healthy Competition (between nurses and between physicians)

How QuICR Helped:

- Sharing of common struggles
- Group collaboration
    - Decreased silos and improved communication
- Potential of new idea implementation
- Improved staff buy-in with process

Future

- Changes to Meditech Order Entry for Strokes
- Updates to Stroke Packages
- LAMS
- Pre-Registration
    - EMS pre-notification
- Improved Physician buy- in / awareness

STROKE PACKAGE

Alberta Health Services

Package Includes	
Physician	**Nursing**
Suspected Stroke Orders (Primary Stroke Center)	Stroke Team Activation Switchboard
APSS Hypertension Management Guidelines	Telestroke/tPA Process Flow QE II
Acute Stroke Alteplase(t-PA) Protocol Adult - Inclusion / Exclusion Criteria	NIH Stroke Scale & Tools
Clot Busting for Stroke Patient and Family Discussion (6-liner)	Foley Catheter & APSS Hypertension Management Guidelines
Acute Stroke Alteplase (t-PA) Protocol Adult ER Orders	Acute Stroke Alteplace (t-PA) Protocol Adult
Transient Ischemic Attack(TIA) ER Orders	Stroke & t-PA Administration Patient and Family Information Sheet
Edmonton Stroke Prevention Clinic Referral and EZ TIA/Non-Disabling Stroke High/Moderate/Low Risk Guideline	Alaris/Buretrol t-PA Set Up Help Guide
Admission Orders Stroke (Acute Hemorrhagic)	Nursing Trauma In/Out Record with Nursing Notes
Admission Orders (Acute Ischemic) /TIA NON-tPA Inpatient	Stroke tPA Vital Signs Cheat Sheet
	The Toronto Bedside Swallowing Screening Test (TOR-BSST) & NPO Sign
	Stroke Protocol Process Evaluation-Primary Stroke Centers
	Discharge Information for Patients with TIA

RAAPID NORTH 1-800-282-9911

*not all paperwork included needs to be used, label only what you need

STROKE tPA VITAL SIGNS CHEAT SH

Alberta Health Services

this is for reference and assistance only, and not part of the Patients Health Record

Continuous Cardiac and SpO2 Monitoring for 24 hours minimum, HOB 30

Vital Signs and Neuro Vital Signs			NIHSS			Capillary BGL		
Frequency #	Time	√	Freque ncy #	Time	√	Q4H x24H	Time	√
During Infusion Q15	1-PA Bolus		Baseline			1		
	2		After Bolus			2		
	3		30 min			3		
	4		60 min			4		
	1		3hour			5		
Q15 min x 2hours	2		6hour					
	3		24 hour		notify physician if greater than 8mmol/L or less than 4mmol/L			
	4		notify physician immediately if there is a noted NIHSS change greater than 2					
	5							
	6		**Angioedema**			**Intervention**	√	
	7					Patient NPO		
	8		Freque ncy #	Time	√	x6hrs post t-		
Q30 min x6hours	1		Baseline			TORBSST Completed		
	2		30min post tPA					
	3		45min post tPA			Foley Catheter		
	4		60min post tPA			if NO Foley, assess voiding		
	5		75min post tPA			Bladder		
	6					a TORBSST can be reassessed qshift, or with a change in patient condition		
	7		patients on ACE Inhibitors are at higher risk					
	8							
	9							
	10							
	11							
	12							
Q1H x 16hours	then Q4H x 48hour							

notify physician is systolic BP is greater than 180 mmHg or diastolic is greater than 105 mmHg

Ensure all nursing activities are appropr charted on the NURSING PARAMETER RECORD

STAT! STROKE Process Flow QE II 15Dec15

QEII Performance — Door-to-CT

Median DTN ~ 30 min!

2015:
- 2015-09-18; DTN=43.0
- 2015-11-1; DTN=54.0
- 2015-09-23; DTN=56.0
- 2015-09-25; DTN=86.0
- 2015-10-11; DTN=90.0
- 2015-12-22; DTN=93.0

2016:
- 2016-05-11; DTN=34.0
- 2016-04-14; DTN=36.0
- 2016-02-18; DTN=39.0
- 2016-07-29; DTN=45.0
- 2016-02-11; DTN=53.0
- 2016-04-22; DTN=61.0
- 2016-07-09; DTN=63.0
- 2016-07-09; DTN=65.0
- 2016-03-07; DTN=70.0
- 2016-01-14; DTN=75.0
- 2016-07-22; DTN=107.0
- 2016-05-23; DTN=180.0

QE II QuICR Team

Darlene Peacock, Jason Selzler, Kathryn Hebner, and Lauren Black (L -> R)

EMS

QE II Nurses

STAT! STROKE TEAM ACTIVATION

Alberta Health Services

What is it? The STAT! Stroke Team activation is initiated by the Charge Nurse in the Emergency Department when an Acute Stroke Patient present to the Emergency Department.

What does it mean? When the STAT! Stroke Team is activated, Switchboard is sending the page 1234 to the pagers of staff involved in the Stroke Team.

Who comprises the Stroke Team? ER PHYSICIAN (if off unit), Radiologist on call, CT Tech and Lab Assistant

What do we do when paged? ER Physician-report to the Emergency Department, Radiologist-alert switchboard page received, CT Tech-alert switchboard page received-speak to ER Charge Nurse regarding ETA of patient or current Location, Lab-report to the Emergency Department

What if I don't receive the Page? Switchboard will re-page Radiologist and CT Tech Q5min until Answer received.

STEPS:

1. Charge Nurse Receives Phone call, or Triage Nurse alerts Charge of Suspected Acute Stroke
2. Phone Switchboard at 7777
3. Ask for STAT! STROKE TEAM ACTIVATION, state if ER Physician is present in Unit or Not
4. When CT Tech Calls, communicate:
   a. Location of patient (EMS inbound-#min, Patient from Triage-in Room #?)
5. Take Patient to CT only when CT Tech, or Xray Tech calls to say they are ready.

TIME IS BRAIN

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