# Transfers from an ASRH to CSC

## Aurora St. Luke's Medical Center


March 4th, 2021 Suzy Lesser MSN, RN, SCRN Stroke Program Manager

# Aurora St. Luke's Medical Center

- **Licensed Beds: 938**
  - General Beds: 465
  - ICU Beds: 126
  - Neuro-Surgical ICU Beds: 27
  - Stroke Unit Beds: 46
  - Rehab Beds: 36
- **Operational Beds: 636**
- **Medical Staff:**
  - Active and Associate: 1241
  - APPs: 419
- Accredited by DNV
- TJC Comprehensive Stroke Center
- Achieved Fifth Magnet Recertification in 2018
- State certified as a Level III Trauma Center
- Rehab: CARF Accredited
- Chest Pain Center Accreditation, Society for Cardiovascular Patient Care
- Mechanical Circulatory Support Device (VAD) Program: Joint Commission
- PCI Designation Level III
- Transplant Program: United Network for Organ Sharing (UNOS) Designated Transplant Center - Solid Organ
- AHA GWTG Gold Plus Target HF Honor Roll


The Joint Commission

American Heart Association

American Stroke Association

CERTIFICATION

Meets standards for

Comprehensive Stroke Center

DNV·GL

# Our Stroke Journey

2005 – Obtained TJC Primary Stroke Certification

2014 – Obtained TJC Comprehensive Stroke Certification

April 2021 – anticipated first DNV Comprehensive Stroke Certification Survey

# Assessments

- LKWT
  - Consistent LKWT
  - Last Known Well vs Last Known Normal
- NIH
  - Mainly scores MCA region
  - Score can vary across practitioners
  - Ensure you are scoring the first response, do not coach the patient
  - Score what the patient does, not what you think the patient can do
  - https://www.youtube.com/watch?v=do2CbY_Nm5c
- Dysphagia
  - Fail if patient has a facial droop
  - Have plan for a swallow eval for those who fail

# Why is the NIH so Important?

- Initial score of 7 was found to be important cut-off point
  - NIHSS >7 demonstrated a worsening rate of 65.9%
  - NIHSS <7 demonstrated a worsening rate of 14.8% and were almost twice (1.9x) as likely to be functionally normal at 48 hours (45%)
  - (DeGraba et al., 1999)

- NIHSS <5 most strongly associated with D/C home
- NIHSS 6-13 most strongly associated with D/C to rehab
- NIHSS >13 most strongly associated with D/C to nursing facility
  - (Schlegel et al., 2003)

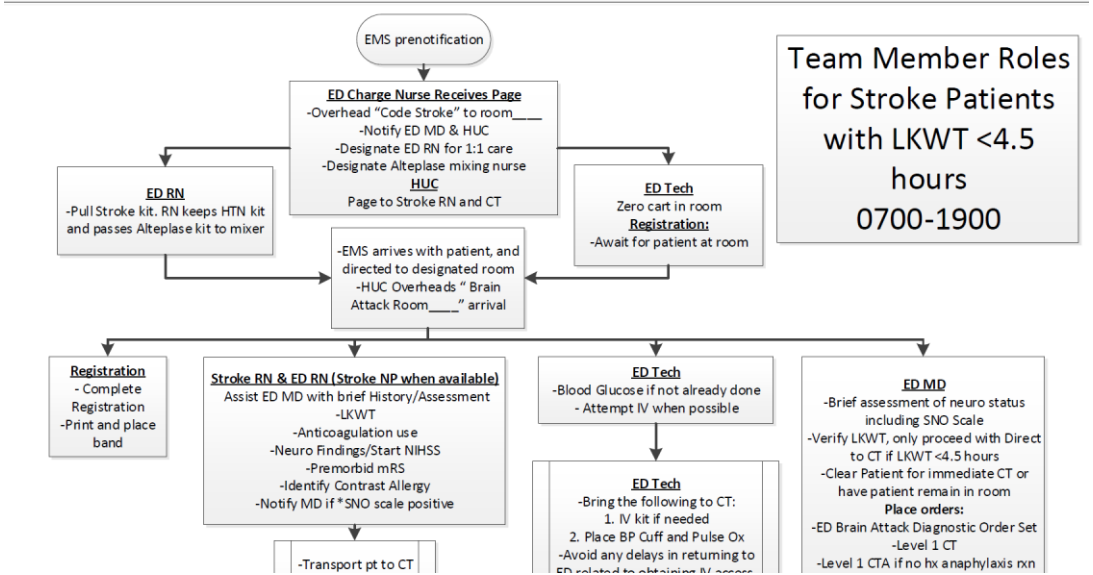
- A change from 2-4 may be a significant change that should be communicated to the provider if the patient has a in motor strength, sensory change, or visual field deficit

# Diagnostics

- Labs
  - Glucose
  - If on Coumadin need INR ASAP
  - Draw rainbow
- Door to CT start < 25 minutes
- Door to CT result < 45 minutes
- Door to CTA result <60 minutes
- PT/PTT result median of 45 minutes

# How do we achieve times?

- **Know your roles**
  - Have team members assigned to each task
- **Establish processes for speed and efficiency**
  - For ED staff
  - Neurology
  - Transfer



# Thrombolytics < 45 minutes

- Direct to CT Process
  - Do not room your patients
- Team members each assigned a task
  - RPh/RN to mix alteplase
- Involving Teleneurolgy early
- Administer hypertensive medications early
  - Give 1 dose of labetalol, then move on to Cardene
- Staff follow up for all stroke patients
- COMMUNICATION

# Door in, Door Out

- **Coordination with Tertiary Access Program**
  - Notify TAP ASAP to begin communication about need to move patient
  - Bed Constraints for non Alteplase and LVO patients
  - Teleneurology assisting with LVO coordination
- **EMS transport**
  - Let EMS know:
    - When flush will need to be started
    - Any HTN medication given
    - BP Parameters
    - Neuro check
    - Where they are going at sending facility – ICU vs IR
      - Do they need to call anyone upon arrival?

# Door in, Door Out

- **Report to sending facility should include:**
  - Time bolus was given
  - Any HTN medications given
  - Any meds that were hung upon discharge
- **Feedback**
  - ASLMC sends feedback on any alteplase or LVO patient that is sent.
  - This helps us to communicate any care concerns as well as close the loop with the sending facility.

| Metric | Result | IV Alteplase Goal | MER Goal |
|---|---|---|---|
| ED MD Eval | At arrival time | <5 minutes | <5 minutes |
| Notify Stroke Nurse | Pre-notification | Immediately after EMS pre-notification or arrival to triage | |
| Initiate CT Scan | 1 | <5 minutes | <15 minutes |
| Stroke MD Consult | 2 | <15 minutes | |
| Interpret CT | 14 | <25 minutes | |
| Initiate CTA Scan | 45 | <30 minutes | |
| Neuro IR Consult | 15 | <30 minutes | |
| Interpret CTA | 1:23 | <45 minutes | |
| Door to Needle (Alteplase) | 40 | Primary<45/Stretch<30 | |
| ASLMC to Groin | 9 | NA | <60 minutes |
| ASLMC to first pass | 20 | NA | <90 minutes |
| ASLMC to Reperfusion | 30 | | <120 minutes |
| TICI Score | 2b | | 2B or 3 |
| Door-In Door-Out | 1:16 | | < 60 minutes |

**Patient Outcome:**
Most Recent mRS: 5
Most Recent NIHSS: 17

**Additional Timing Measures**
LKWT-Reperfusion: 3:53
Initial ED Arrival-Reperfusion: 2:33

**Recommendations for Improvement:**
Really great times overall. Nice work by the Hartford team. The door-in door-out time and coordination of care appears to have gone well after initiating the CTA and getting the patient out.

# Questions