

Stroke Panel

Patient Case Studies

Local Stroke Landscape

MISSION: LIFELINE SYSTEMS OF CARE MEETING

DECEMBER 13, 2017

THANK YOU TO ALBANY MED AND
ORANGE REGIONAL MEDICAL CENTER
FOR SHARING STROKE CASES!

Stroke Case A - Direct to CT Case Study



- 65 yr old female history : HTN, back pain
- Pt became weak at **11:30 am** and fell, left sided facial droop and left sided weakness. Last known well **11 am**. NIH score **17** . Patient brought in via EMS . Code Neuro called prior to arrival. Patient received tpa in **26 minutes** and was transferred to Westchester Medical Center . Patients follow up symptoms had resolved

Thank you to Orange Regional Medical Center and Suzanne Geraci for sharing this case for today's presentation.

Stroke Case A - Direct to CT Case Study



- 14:23 Call from EMS : Pre notification given ,. Last known well 11 am. EMS assessment : slurred speech and left arm drift. Code Neuro called Blood glucose 124
- 14:31 Patient arrived in ED, patient seen by ER physician NIH 17 in route to CT with EMS and stroke team
- 14:38 IN CT imaging exam started
- 14:41 CTA exam started
- 14:45 Case discussed with Neurologist .
- 14:50 Neurologist at bedside ;Pt off CT table to Code Neuro Stretcher with scale; weight obtained
- 14:52 CT resulted: Multiple areas of subacute infarct involving the right frontal lobe and right parietal /temporal lobe
- 14:53 Tpa assessment; pt is a candidate ;vital signs stable BP 162/82
- 14:57 Tpa pushed
- 15:02 labs collected
- 15:09 CTA resulted: Occlusion of the right MCA with resulting hypo perfusion of the Right MCA territory Severe critical stenosis of the proximal right internal carotid artery.
- 15:11 Transfer decision for clot retrieval , flight arrangements made
- 15:16 Labs resulted
- 15:37 Patient transferred to Westchester. Patients follow up no neuro deficits

Door to Needle 26 minutes

Stroke Case B – Transfer to AMC

Patient History



- Patient: 67 year old left-handed female
- Diagnosis: Left MCA territory ischemic infarct, etiology possibly cardioembolic from cardiomyopathy versus small vessel disease
- HPI: Patient had been admitted to OSH for cardiac concerns, and was an inpatient at time of symptom onset. The patient had a sudden onset of right facial droop, garbled speech, and right paresis of her arm.
- Last Seen Well: 0100
- tPA administered: 0305

Thank you to Albany Med and Adrienne Weitzel for sharing this case for today's presentation.

Stroke Case B – Transfer to AMC

EMS Transfer Care



- Left OSH in route to AMC: 0441
- Patient arrived at AMC: 0531
- EMS pre-notified AMC prior to arrival, with in 5-10 minutes
- EMS documentation reflected the following elements:
 - Nurse report provided
 - LNW
 - tPA hanging and start time
 - Neurologic assessment noted with neurologic deficits

Stroke Case B – Transfer to AMC

AMC Course of Care



- **CODE Stroke was activated prior to patient's arrival**
- **EMS brought patient direct to CT Scanner suite in ED**
- **Neurology Stroke team at bedside within 15 minutes of patient arrival**
- **NIHSS upon arrival: 18**
- **Advanced imaging performed CTA/CTP**
- **Neurosurgery consulted and patient brought to VIR for Mechanical Thrombectomy**

Stroke Case B – Transfer to AMC

Neurosurgery Endovascular Mechanical Thrombectomy



- Patient in VIR suite within 60 minutes of arrival to AMC
- Revascularization time of 91 minutes of patient arrival
- Successful mechanical Thrombectomy, TICl Score of 3 post intervention
- NIHSS on discharge: 2
- Modified Rankin Score: 1
- Discharged Home



Stroke Case C

EMS and Community Hospital Outreach



▪ **Stroke Coordinator**

- Feedback loop to regional hospitals transferring cases to AMC
- Interventional neurosurgeons visit other community hospital in order to education on stroke and new therapies, such as thrombectomy as well as best practices for transferring

▪ **In house EMS Outreach Coordinator**

- Allows real time feedback on each case for stroke
- 3-4 in-service sessions annually at stroke coordinator team gives lectures at REMO
- Annual EMS outreach day at AMC & Stroke, STEMI, Trauma Patients in the Evening to connect with their
- 2018 additional EMS day through collaboration of regional stroke coordinators consortium

Thank you to Albany Med and Adrienne Weitzel for sharing this case for today's presentation.

Stroke Case C

EMS and Community Hospital Outreach



Key Messages for Education

- TIME is Brain
- Symptoms of stroke may present in different ways – focus on awareness of atypical presentation as well as common presentation
- Listen for an important cue: ***SUDDEN ONSET*** of symptoms & Know your ***LAST SEEN WELL***
- Assessment of airway, breathing, and circulatory status
- Rapid assessment by using a stroke pre-hospital assessment tool
- Smart phone apps to assist with assessment
- Stroke scale assessment tools:
 - Cincinnati Prehospital Stroke Scale (CPSS)
 - Los Angeles Pre-hospital Stroke Scale (LAMS)
 - RACE
 - FAST-ED