PRIMARY STROKE CENTER

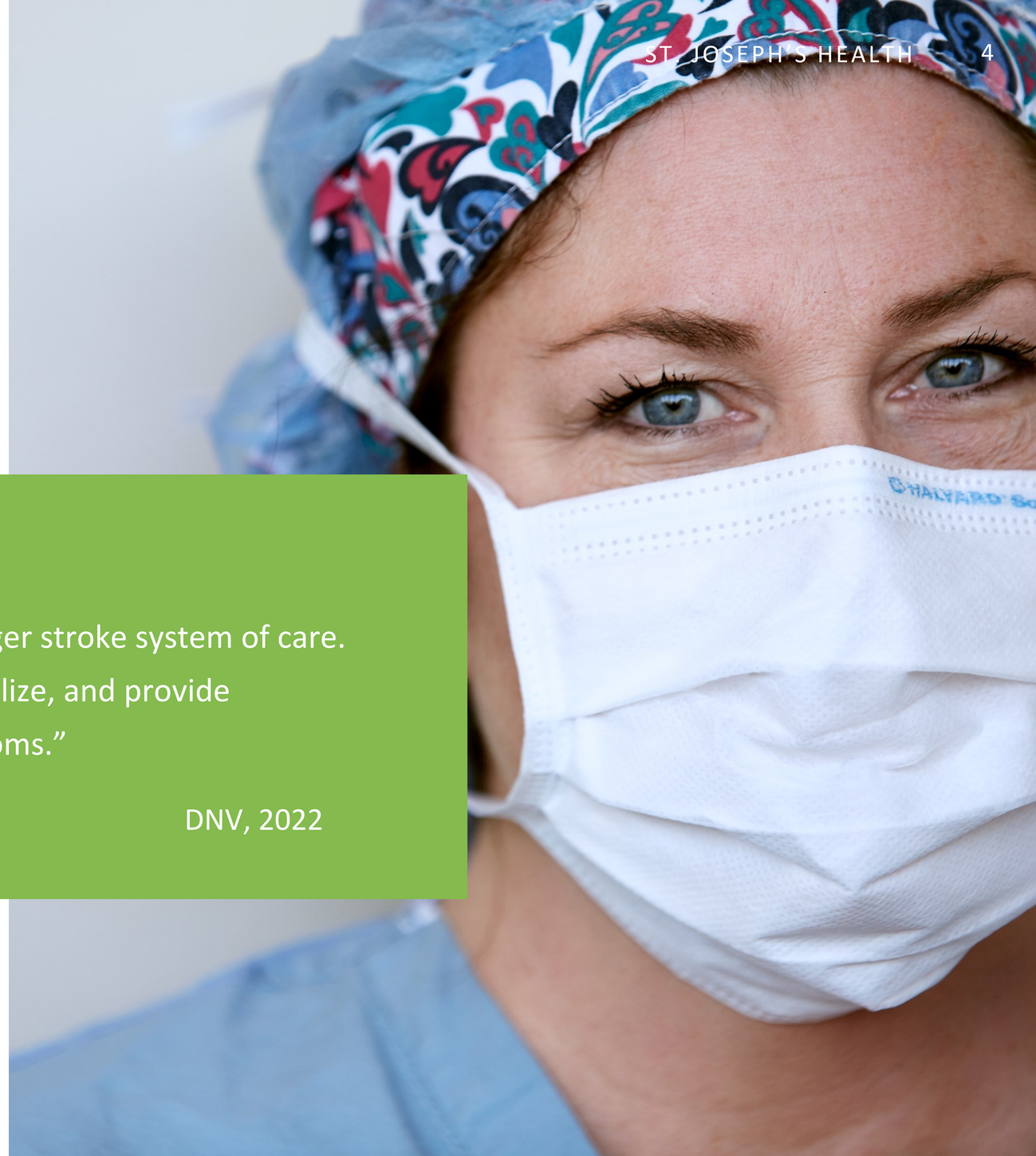
BERNADETTE MEDVE, MSN, SCRN

Disclosure/s

None

Objectives

- Define primary stroke center
- Understand the difference between primary and comprehensive stroke centers
- Identify resources available to assist new facilities with designation of a certified stroke center

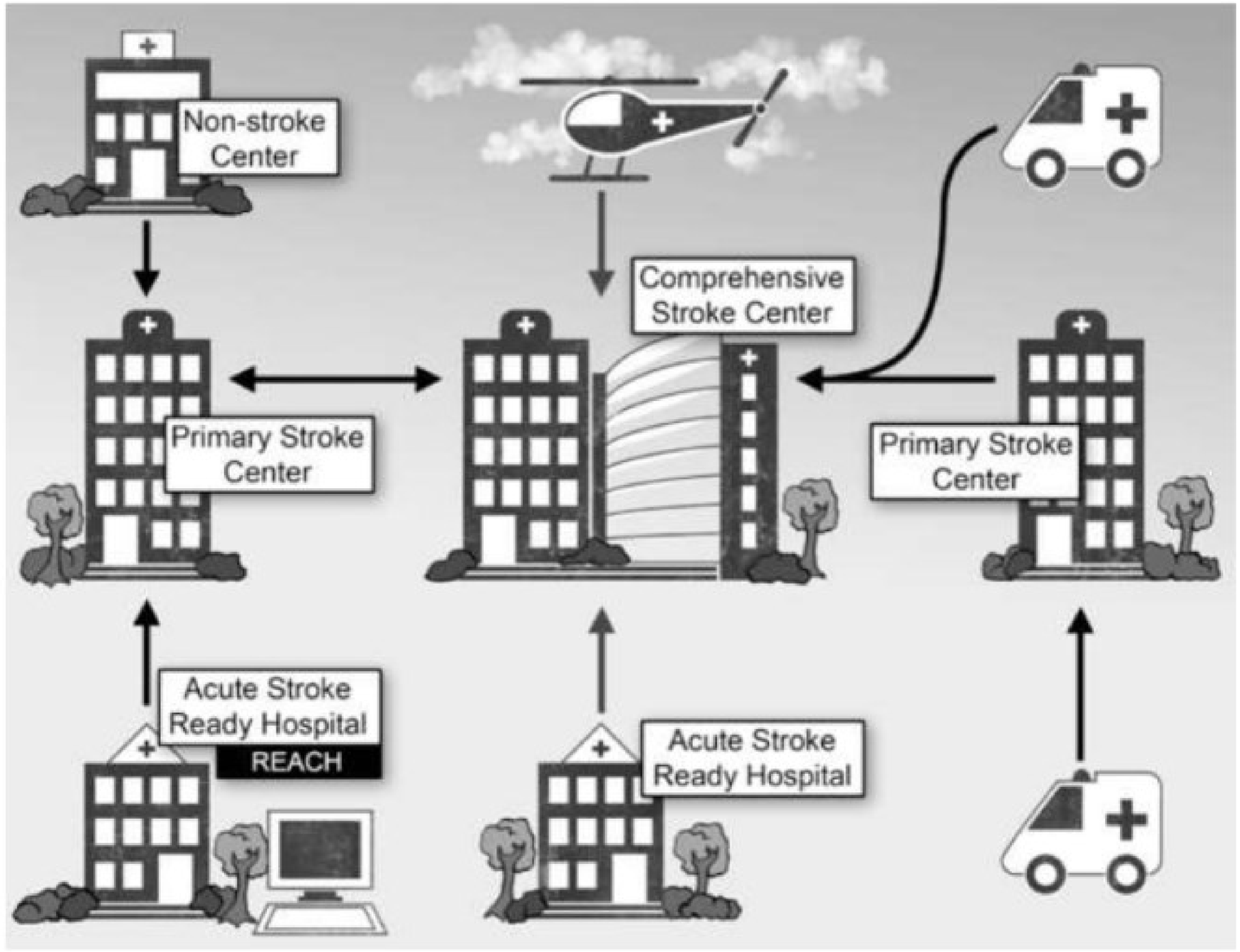


Primary Stroke Center:

"Primary stroke centers are designed to be part of a larger stroke system of care. Which means the hospital is equipped to evaluate, stabilize, and provide emergency care to all patients with acute stroke symptoms."

DNV, 2022

Stroke System of Care



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Primary vs. Comprehensive Stroke Centers

Primary Stroke Center (PSC)

- Stroke Unit or designated beds
- CT/CTA/MRI 24/7
- Neurologist 24/7 in person or via telemedicine
- Administer thrombolytics (alteplase, TNK)
- Neurosurgery available w/in 2 hours –SUNY & Crouse
- CNY PSC: SJH, Auburn, Samaritan Medical Center, Rome

Comprehensive Stroke Center (CSC)

- Dedicated neuro ICU
- Intervention 24/7 cath/angio/thrombectomy
- 24/7 neurointerventionalist, neurosurgeon, & neurologists
- Aneurysm, clipping, coiling (volume requirements)
- Patient centered stroke research
- CNY CSC: Upstate, Crouse, Mohawk Valley Health System

St Josephs Hospital Timeline

2015- Oct- Stroke Coordinator- vascular patient

2016- Gap analysis

2017- NYS DOH Application submitted/Site visit

2018- March- NYS DOH designation
June- DNV application/Site visit
July- DNV certified

2021- Partnership with SUNY for ED LKW< 4 hours

2022- SJH teleneurology services

Core Stroke Team Members

- Emergency Department
  - Physicians
  - RN's
- Neurologists:
  - Dr. Saada, Dr. Kumari, Dr Shah, & Chelsea Yager PA
  - Bernadette Medve SCRN- Stroke Coordinator
  - Upstate partnership
- Residents (2nd & 3rd year)
- ICU RN
  - MSICU
  - CVICU
  - Nursing Supervisors

Dr. Fahed Saada
Stroke medical Director

Dr. Savita Kumari

Dr. Syed Shah

Chelsea Yager PA

Bernadette Medve SCRN
Stroke Coordinator

Patient Presentation

- Balance
- Dizziness
- Vision
- Weakness
- Numbness
- Arrival of patient- 59% EMS arrival with 8% prenotification

Patient Population

High risk-

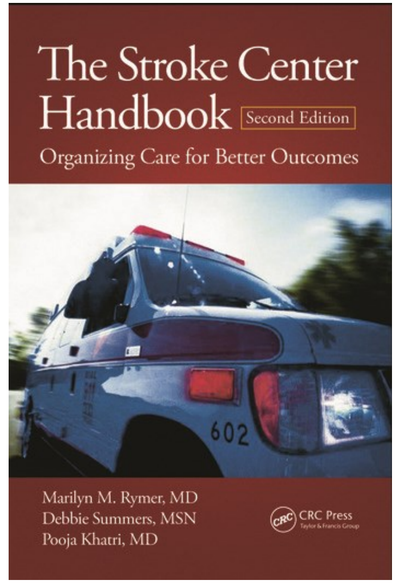
- On anticoagulants- NOAC, warfarin
  Held for minor vs major surgery
- Surgery-
  Cardiac (rapid extubating protocol)
  Transcatheter aortic valve replacement (TAVR)
  Vascular

- Cardiac catheterization

- Illegal drug use- heroin, cocaine

Resources

- Conferences-2016 STAR NY- DWI ?
- Neurologist- Dr. Kevin Thomas, Dr Fahed Saada
- AHA/ASA- Guideline
- The Stroke Center Handbook
- Mentors- Other stroke coordinators
  Jennifer & Josh (SUNY), Oksana(Crouse)
- Committees- Central & Western NY Stroke coordinators Consortium (CWSC), Trinity Health stroke coordinators
- DNV/Joint Commission Guidelines



Stroke Treatment Alliance of Rochester
STAR-NY

CWSC
Central and Western New York Stroke Coordinators Consortium

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Many process improvements

"Why are we doing this when we have two Comprehensive stroke centers 5 minutes down route 81?"

Standardized the care of the stroke patient- policy & procedures, order sets etc.

Stroke education- NIHSS certification- stroke team

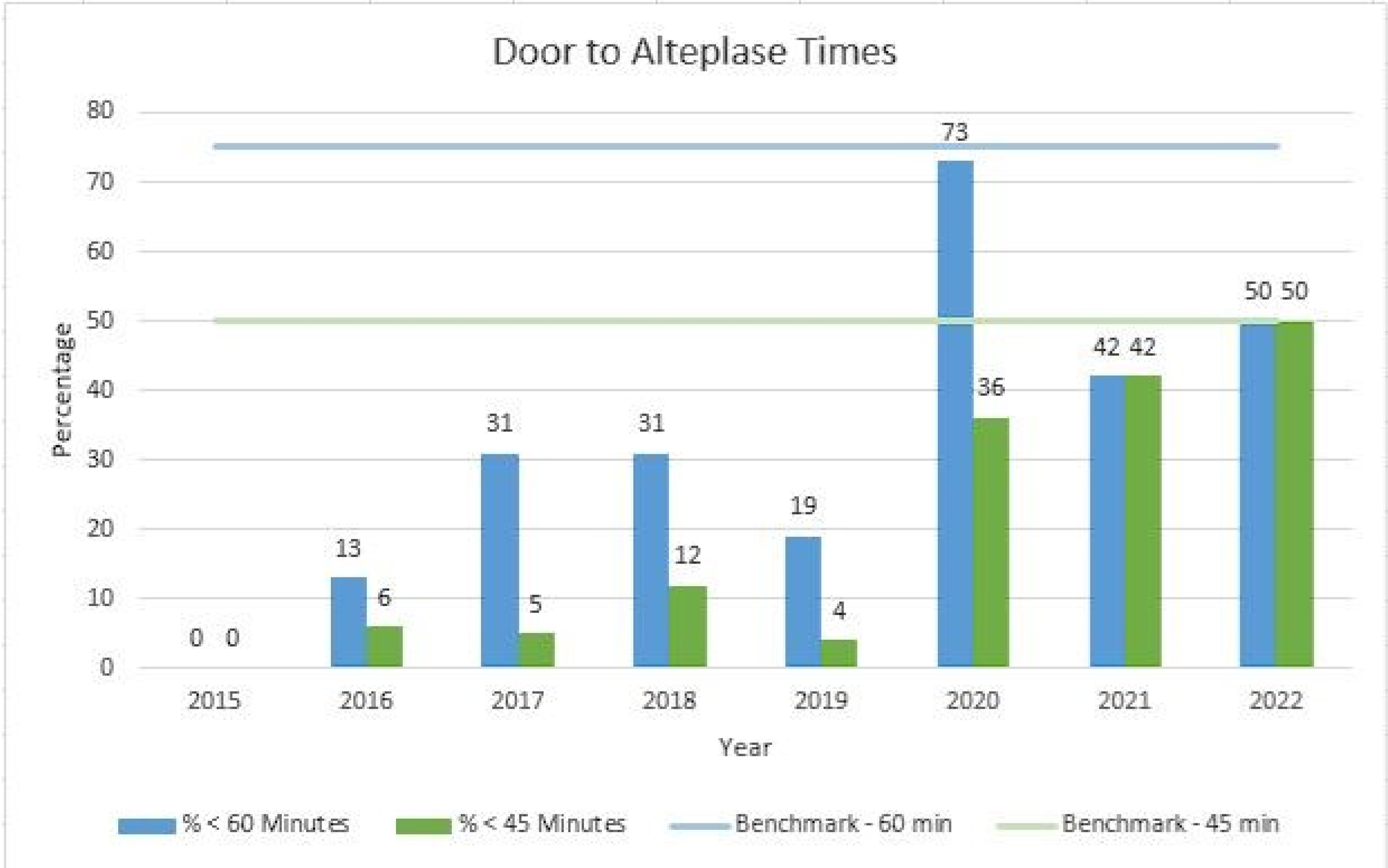
Improve door to thrombolytic time- Mix at the bedside

Dysphagia screening

Improve in-house stroke care

2019-Cover the emergency room "business hours" to 24/7 coverage via telemedicine

Assign ED stroke nurses on all shifts


Door to Alteplase Times
Percentage
80
70
60
50
40
30
20
10
0
0 0
13
6
31
5
31
12
19
4
73
36
42 42
50 50
2015
2016
2017
2018
2019
2020
2021
2022
Year
% < 60 Minutes
% < 45 Minutes
Benchmark - 60 min
Benchmark - 45 min

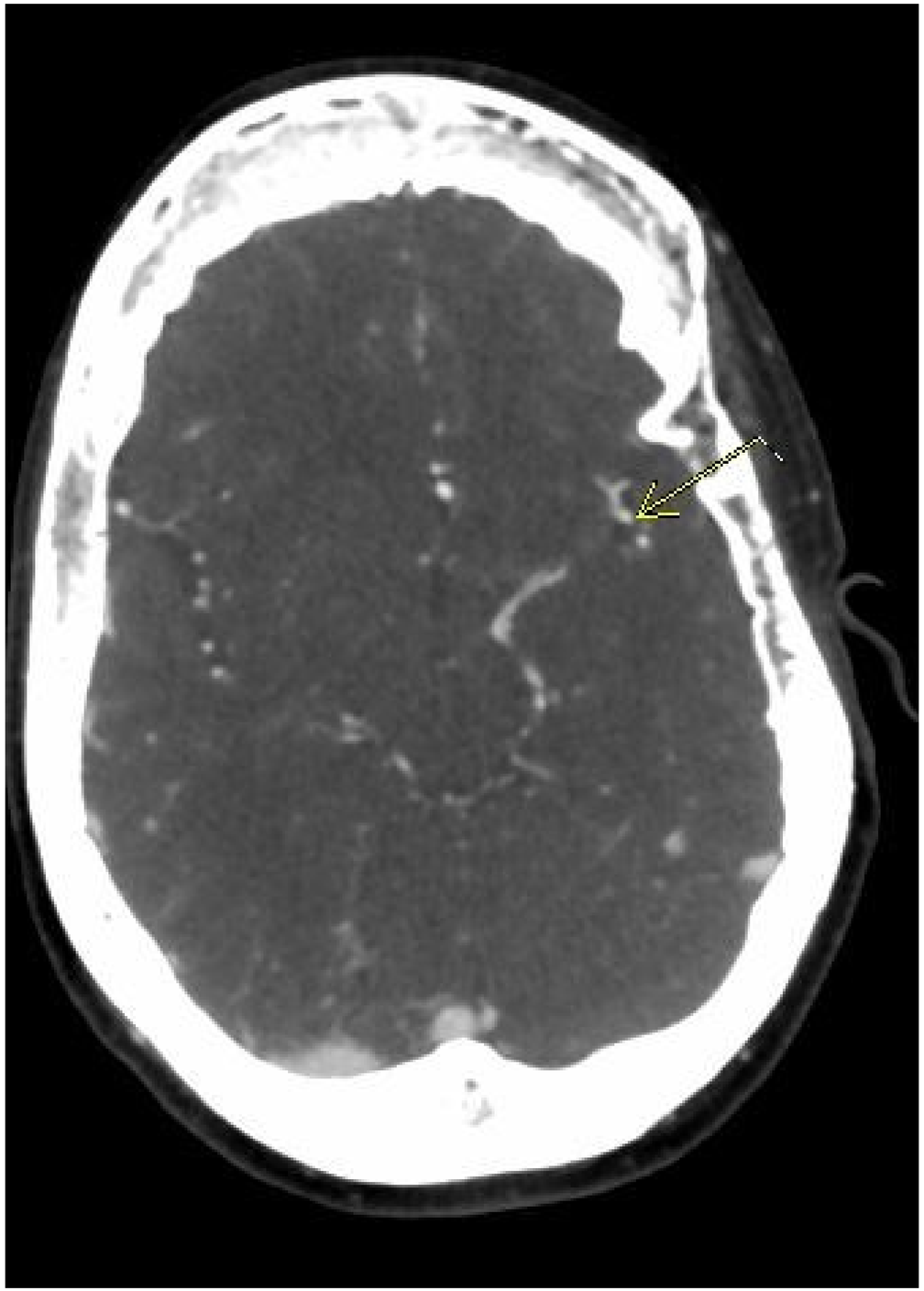
Case Review #1

- 56 y.o female Hx type 2 DM, HTN, HLD, depression, prox. A fib, oropharyngeal dystrophy, CP, NSTEMI
- Admitted for cardiac work up
- Started on hep gtt. but d/c at 0300 the day after d/t Hx of HIT
- Evaluated for heart cath
- A&O X 3 in cath lab pre holding area, took a nap at 0930 awoke at 1123 with dense right hemiplegia

Case # 1 cont.

- LKW 0930
- Symptom discovery 1123
- NIHSS-15
- CT- 1134 CT read – 1147
- CTA -1140 CTA read -1223 + LVO
- Alteplase candidate 4.9mg bolus @ 1155, followed by infusion 44.2mg at 1200
- After alteplase given pt. started to move right are/leg
- Pt transferred to SUNY at 1315

Case #1 cont.



Case # 1 cont.

- Pt transferred to SUNY at 1315
- NIHSS at SUNY-16
- Angio showed recanalized M2 with distal M3/M4 occlusion. No thrombectomy was performed.

Case Review #2

40 y.o male Hx of CP, CAD, type 2 DM, HTN, obesity, ischemic cardiomyopathy.

Admitted to cardiac surgery for CABG & MV repair

POD#1 – CVICU, rapid extubating protocol transferred to step down unit

POD # 4- Acute onset dense hemiplegia CT/CTA

Case #2 cont.

- LKW 0630
- Symptom discovery - 0730
- CT/ CTA 0730
- NIHSS- 20
- Transferred at 0825 to SUNY
- NIHSS at SUNY -15
- Thrombectomy TICI 3
- NIHSS on D/C to acute rehab - 4

Primary Stroke Care

- Improve patient outcomes
- Decrease mortality & morbidity
- Decrease disabling deficit
- Provide secondary prevention measures

SJH Stroke Mission Statement

" To provide every stroke patient with the highest quality, compassionate, evidence-based care throughout the continuum from emergency treatments, the in-patient stay and into the rehabilitation phase in a consistent and safe manner "