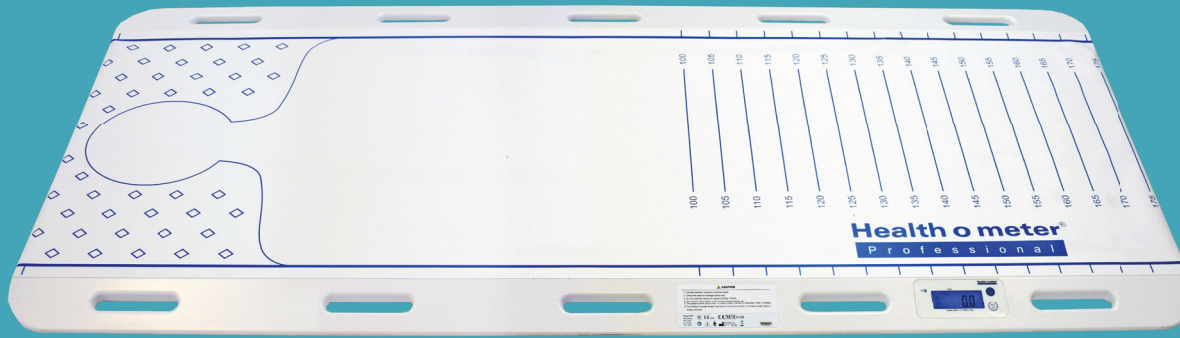


# Health o meter<sup>®</sup>

P r o f e s s i o n a l



**PATIENT  
TRANSFER  
SCALE**

A Case Study in Stroke Management Process Improvement

How an innovative and novel medical scale allowed a hospital to change and improve their stroke protocol process



# PROBLEM

Our Lady of the Lake's (OLOL) previous stroke alert process did not support treatment times compared to Comprehensive Stroke Centers. OLOL wanted to streamline their process as their current protocol delayed CT / CTA result times and caused unnecessary patient and staff movement.

Our Lady of the Lake Regional Medical Center introduced the Patient Transfer Scale to help manage their stroke patients and improve their stroke protocol process. This Case Study displays the results and findings after use in the facility for three months.

# OBJECTIVES

**OLOL's overarching goal was to revise their stroke protocol process to support treatment times of a Comprehensive Stroke Center.**

## **Specific goals included:**

- ▶ Decrease CT/CTA times
- ▶ Decrease stroke intervention times
  - Thrombolytic/Activase ("Door to Needle")
  - Mechanical Endovascular Reperfusion/Thrombectomy ("Door to Groin")
- ▶ Establish a common meeting spot for stroke activation
- ▶ Decrease patient movement and wasted time

# CURRENT SITUATION

## The existing stroke alert process consisted of the following:

- Patient taken to triage to obtain vitals and weight with a stretcher scale
- Patient moved to an ED room
- Patient assessed by a provider, and labs were drawn, while nurses started IV's and began initial documentation
- After assessments were completed, a decision for CT was made and orders entered
- Patient transferred to CT Suite
- CT non-contrast completed
- Patient returned to ED room where activase was administered or possible thrombectomy evaluated
- Patient transferred to CT Suite
- CT Angiogram (CTA) completed



# METHODOLOGY

**OLOL introduced four major initiatives to meet their stroke protocol goals:**

## Eliminate Unnecessary Patient Movement

- Patient brought to STROKE LANDING ZONE by EMS, bypassing triage and patient room
- Team meets the Patient at the STROKE LANDING ZONE, located outside CT
- An accurate weight is obtained upon transfer to CT table using Patient Transfer Scale. *Time isn't wasted gathering a weighted stretcher.*

## Maintain Safe Environment

- LANDING ZONE ASSESSMENTS - decisions made as a team
- Supplies are available to provide efficient care

## Leverage Multiple Disciplines

- Clinical Service Representative enters orders to help with throughput
- CCMS APP provides guidance and contacts Neurology directly

## Enhance Staff Communication

- Comm Techs collaborate with EMS to communicate relevant patient information to the team

# CHANGE IN STROKE MANAGEMENT PROTOCOL

By removing multiple locations of care for a stroke patient, the new stroke management protocol became more effective and efficient.

## EXISTING

### TRIAGE

Initial Assessment / Vital Signs

### EMERGENCY ROOM

Additional Assessment / Labs / IV / Documentation

### CT SUITE

CT Non-Contrast Completed

### EMERGENCY ROOM

Activase Administered or Thrombectomy Evaluated

### CT SUITE

CT Angiogram Completed

## NEW

### STROKE LANDING ZONE: OUTSIDE CT

Initial Assessment / Labs / IV / Documentation

### CT SUITE

Weight Captured / CT Non-Contrast Completed  
Activase Administered or Thrombectomy Evaluated  
CT Angiogram Completed

The PTS helped stream-line the process in two ways:

1. Remove reliance on hard-to-find stretcher scales
2. Removed the log jam that often occurred in triage

# PATIENT TRANSFER SCALE: ENABLING MULTIDISCIPLINARY COLLABORATION DURING A STROKE ALERT

**Managing the stroke patient in one area allows for each clinician / staff member to perform their individual task but to also collaborate and provide enhanced care for the patient.**

## CT Tech

- Ensure Patient Transfer Scale is placed on CT table to be used during transfer
- Ensure sheet covers available and ready to aid in transfer

## Pharmacy

- Directs staff to measure and call out weight
- Confer with rest of team and start pre-mixing tPA

## Nursing and CT Techs

- Ensure patient's placement allows for accurate weight measurement
- Remove scale together, hang it on wall hooks and plug in adapter

## ED, MD and Stroke Nurse

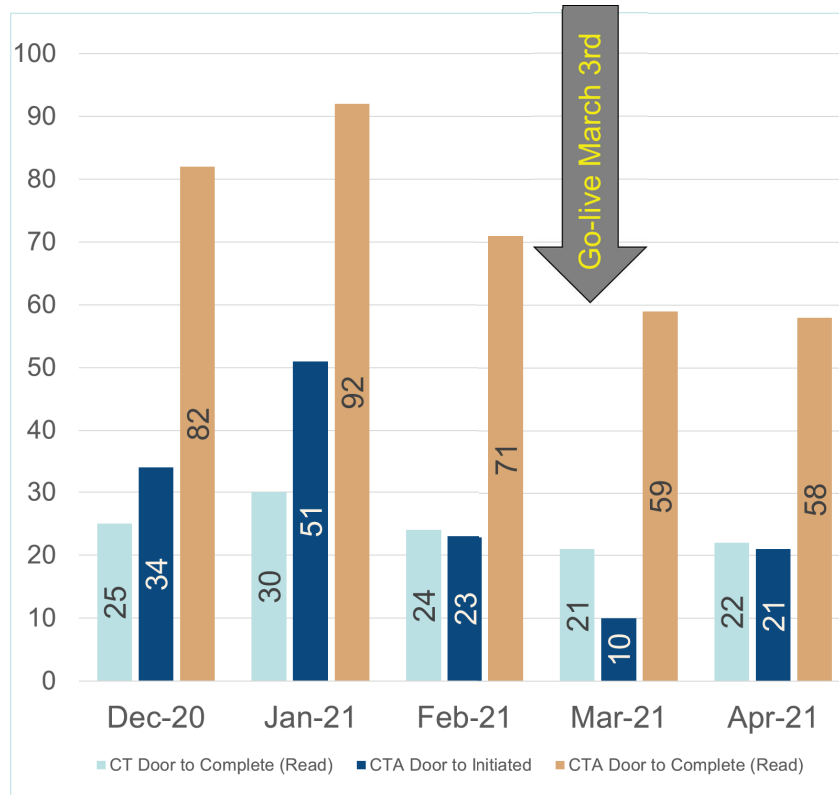
- Determine candidacy for tPA, confer on next steps and treatment



# RESULTS

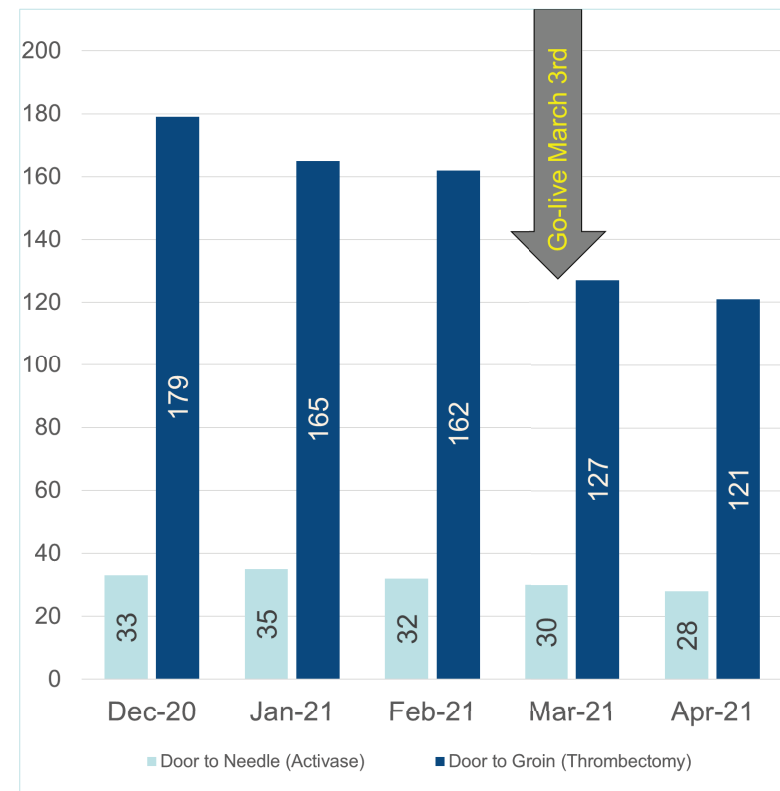
## CT Turnaround Times (minutes)

After implementing the process improvement protocol, the CT turnaround times decreased dramatically:



## Stroke Intervention Times (minutes)

After implementing the process improvement protocol, the stroke intervention times also decreased, surpassing stated goal of 30 minutes door to needle time and reducing door to groin time by 41 minutes, falling short of their goal:







# CONCLUSION

**By incorporating the Patient Transfer Scale as part of their stroke protocol process OLOL was able to support treatment times of a Comprehensive Stroke Center:**

- CT turnaround times decreased by 2 minutes
- CTA turnaround times decreased by 23 minutes
- Door to Needle times decreased by 4 minutes achieving 100% of team goal to reach sub 30-minute timeframe
- Door to Groin times decreased by 41 minutes achieving 40% of initial team goal reduction

**While the Patient Transfer Scale wasn't the only revision to OLOL's stroke protocol, it did enable each of the methodology changes. Completing a patient's weight measurement during the transfer in the CT Suite made for a more efficient and effective stroke management system:**

- Increased Safety
- Decreased Likelihood of Errors
- Better Decision Making
- Improved Communications