

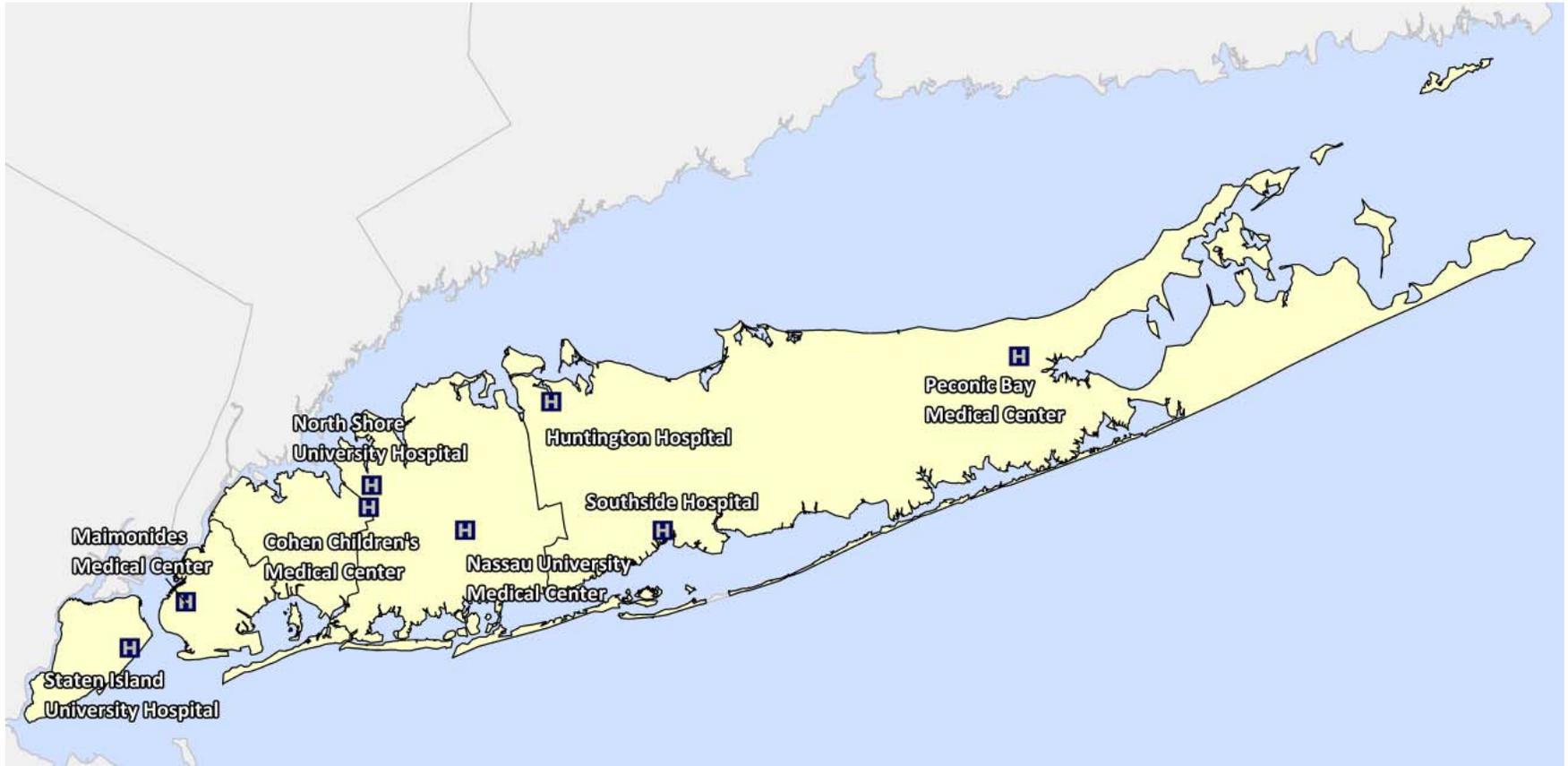
# Geriatric Trauma Care Pre-Conference

## Society of Trauma Nurses

March 21, 2018



**North Shore University Hospital**  
Northwell Health<sup>SM</sup>



# About My Center

1. North Shore University Hospital-Northwell Health: A quaternary care facility located in Manhasset New York. We are just outside New York City and border Queens County.
2. Northwell Health is a system of 25 hospitals and has eight ACS verified trauma centers (3 Adult level 1, 1 Pediatric level 1, 1 Adult level 2, 1 Pediatric level 2, 2 Adult level 3). There is one Level 1 New York state provisional center.
3. NYS has adopted the ACS model for trauma centers. North Shore University Hospital was verified for a second time in September of 2017.

# More about my center...

- In 2017 we had approximately 2450 admissions to the trauma service, unlike some centers, we include hip fractures.
- The average age of our patients is 68 and the oldest was 106
- The highest percentage by mechanism of injury is falls at 75% with falls from standing 63%
- The second highest mechanism of injury varies between motor vehicle collisions and assaults. The percentage is in the single digits.

# Injury Prevention Programs

- The programs that we address fall prevention with are “Stepping On” and “Tai Chi for Arthritis”. Both programs are evidence based.
- Stepping On: A fall prevention program for adults over 65 that have fallen or are afraid to fall. It is a seven week program that is held once a week in two hours sessions led by a certified Stepping on trainer. The data shows a 31% decrease in falls.
- Tai Chi for Arthritis (and Fall Prevention): Is held twice a week for four weeks in one hour sessions and is also led by a certified trainer.

## Some of our key players (to name a few)...

- Seven full time Trauma fellowship trained surgeons.
- Medical co-management hospitalists specializing in gerontology
- Residencies in Emergency Medicine, Surgery, Neurosurgery, Orthopedics, and Anesthesia
- Fellowships in Critical Care Medicine and Ultrasound
- Integration with the EMS system
- Trauma Program Manager, Performance Improvement Coordinator, Injury Prevention Coordinator, and a mixed model of Trauma Registrars

## The EMS System

- Over 70 EMS agencies in Nassau County
- Career and volunteer
- FDNY-EMS
- REMSCO
- Information is relayed to the hospital. There is no direct scene to hospital communication.

## EMS Education

- GEMS-Provided through our EMS teaching center
- FRED (First Responders Education Day) –Provided in conjunction with the Nassau County Executive’s office
- EMS Quarterly- provided in conjunction with our Emergency Department. Case based learning
- Agency specific call review-Provided on request by any agency in our catchment area
- Trauma Video Review- A multi-disciplinary review of trauma team activations that an agency has participated in

## EMS Education

- We have a medical co-management model with our geriatric service. Inclusion criteria for this program include : Age (>65), presence of co-morbid conditions, or evidence of frailty. At any of the previously mentioned educational sessions we have been asked by our hospitalists to reinforce the need to obtain the following information as well as any items that identify frailty:

Code Status including MOLST

Vial/File of Life information

Medication list

Home pharmacy

Past Medical History

Home Situation

Baseline function

Name of the Primary Care Provider (PCP)

## Some physiologic considerations for the geriatric patient

- Thinning of the bones
- Weakening of the diaphragm
- Co-morbidities: COPD, HTN, DM, CHF, arrhythmias, CAD, DVT, PE, dementia
- Weakened cough reflex
- Weakened immune system
- Decreased visual acuity
- Size of the brain

## Case Study

- EMS receives a call for a 75 year old male who fell from a ladder while hanging his Christmas lights.
  - On arrival to the scene they find a 75 year old male on the ground in front of his home. He is lying beside a 20 foot extension ladder and there are Christmas lights tangled around him.
  - He is alert and oriented. His medical history includes atrial fibrillation for which he takes coumadin. Initial vital signs are BP 150/70, HR 88, RR 20, GCS 14.

## Case Study

### MIST Report

EMS pre-notifies your hospital and asks for a trauma team.

- Mechanism of Injury: Fall of 20 feet
- Injuries: Head laceration, possible fractures to left upper arm and ribs.
- Signs/Symptoms: C/o pain on left side, deformity and swelling noted to left upper arm, c/o pain left rib cage with pain on inspiration
- Treatments: Oxygen via mask, direct pressure to scalp wound, sling to left upper extremity

## Case Study

- EMS initiates the following care:
  - Supplemental oxygen via mask.
  - Direct pressure to the scalp wound.
  - Repeat vital signs: He remains alert and oriented. BP 160/70, HR 72, RR 20, GCS 14.
  - He is placed in a c-collar and on a long back board for transportation to the ambulance.
  - ETA to the hospital is 12 minutes

## Case Study

- On arrival in the Emergency Department a Level 2 trauma activation is called:
  - Supplemental oxygen via mask is continued
  - Bleeding is controlled to the scalp wound.
  - Repeat vital signs: He remains alert and oriented. BP 160/70, HR 72, RR 20, GCS 14.
  - Imaging shows multiple left rib fractures and a hemothorax, a left humerus fracture, and a small subdural hematoma.
  - A chest tube is placed with 500ml of bloody output.
  - Orthopedics and Neurosurgery see the patient and decide on non-operative management.

# Thank You

