Personal Background

- I have been a nurse since 1992, after graduating from UND with my Bachelors of Science in Nursing.
- Started as a nurse in the ICU at St. Joe’s Hospital in Minot, ND as a new graduate
- Started flying with the Dakota Airdmed Fixed Wing flight team in 1995
- Transitioned to a management role in the ER at St. Joe’s in 1997
- Went back to the ICU in 1998 and then continued to work there until transitioning to ICU at Trinity in 2001
- 2002 began flying with Northstar Criticair
- 2011 started work as the Trinity Health Stroke Coordinator
Who is a Stroke Coordinator?

- Position was developed from legislation through the ND House.
- Required all of the tertiary hospitals to become certified as “Stroke Centers”
- Need dedicated staff working on:
  - Certification involves an intense survey process
  - Data Collection
  - Process Improvement
  - Protocol development and implementation
  - Education
- Brand new position—when I started there were 3 other coordinators in the state. Most established centers at that time were CHI-St. Alexius and Sanford-Fargo.

Impact of Stroke

- Stroke kills almost 130,000 Americans each year - that’s 1 in every 19 deaths.¹
- On average, one American dies from stroke every 3 minutes, 42 seconds.²
- Every year, more than 795,000 people in the United States have a stroke. About 610,000 of these are first or new strokes. One in four are recurrent strokes.²
- Stroke is a leading cause of serious long-term disability.²

References:
¹ CDC, NCHS. Underlying Cause of Death 1999-2013 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999-2013, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. ©1999-2015 Vital Statistics Cooperative Program
How do we start a Stroke Program?

- Requires administration support
- Physician buy in
- Staff buy in
- Good process improvement plan
- Willingness to put yourself out there to educate EVERYONE

Pieces of the puzzle of a stroke program

Patients/Families
EMS
Physicians
Nursing Staff
Therapy Staff

Pharmacy
Radiology
Lab
Case Management
Primary Care Providers
Specialists
Others…
Aspects of Stroke Coordinators Role

- Education
- Chart Review
- Respond to alerts
- Stroke Rounds
- Data Collection, Analysis, Process Improvement
- Guideline review, update protocols
- State Involvement
- Grant Requirements
- Survey Readiness
- Patient follow up/Stroke Support Group/SSEO program

What is a Stroke?

Acute interruption of blood supply to a part of the brain, can be due to clot or bleeding. With each minute that passes 2 Million brain cells die
Types of Stroke

**Ischemic**
- Most Common Type
- A clot blocks the flow of blood to a part of the brain, starving brain cells of oxygen
- 87% of all strokes

**Hemorrhagic**
- Also called a “Brain Bleed”
- A weak blood vessel suddenly ruptures and spills blood into the brain.
- 13% of strokes are this

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Transient Ischemic Attack (TIA)

TIA means:
- Transient = brief, temporary, fleeting
- Ischemic = lacking blood supply
- Attack = episode, event

A TIA is a warning sign that a stroke can occur at any time. It is often called a ‘mini-stroke.’

The blood flow to the brain is blocked for a short time and the body resolves it on its own.

The symptoms of a TIA go away without leaving permanent damage.

Forty percent of patients that experience a TIA go on to have a stroke.
Stroke Education

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BEFAST

B = Balance- Does the patient have sudden loss of balance or coordination?
E = Eye- Is the patient experiencing double vision or do they have difficulty seeing out of one eye?
F = Face- Does one side of the face droop or is it numb?
A = Arms- Is one arm weak or numb?
S = Speech- Is speech slurred? Is the person unable to speak or hard to understand?
T = Time- If any of the above are noticed, call 911 and get to hospital as soon as possible.

How is a Stroke Diagnosed?

- Symptoms consistent with a Stroke
- Head CT
- Advanced diagnostic testing (MRA, CTA)
- Goal to CT < 20 minutes from arrival time
What does an Ischemic Stroke look like?

CT Scan Head-Ischemic Stroke

MRI Head-Ischemic Stroke

Treatment of Ischemic Stroke

- Treatment is time sensitive—if a patient arrives within 4.5 hours of symptoms starting, they may be eligible for clot busting medication
- The goal is to reestablish blood flow by dissolving the clot
- This medication may reduce the severity of stroke symptoms
- Major concern is bleeding (6.4%), so careful patient selection is important
- The earlier the medication can be given, potentially the better it will work
- If a patient presents outside of 4.5 hours, additional scans will need to be done to determine how large of stroke they are having.
- Patient may be a candidate for treatment of the stroke by attempting to remove the clot
- Or if patient is not a candidate, by just be treated conservatively
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Stroke Rounds

- Every Wednesday and Friday
- PT, OT, Speech Therapy
- Dietary
- Stroke Coordinator
- Nursing (if available)
- Case Management (if available)
- Review patients progress and discuss discharge plans
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Data collection, analysis, process improvement

Review all data that goes into registry, and build quality or process changes from the data. Joint Commission expects to see us trying to get better in all aspects of stroke care.
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Guidelines

Constantly changing and being updated
So protocols and processes have to be changed too
Stroke Care advancing always
New advances in technology
Transferring patients to most appropriate facility to give them the best shot to get better
Always striving to improve the care we provide.
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State Involvement

Involved in the State Stroke System of Care as a Task Force member
Work on State protocols
Serve as stroke experts during legislative session
State Stroke Cardiac Conference
Survey Critical Access Hospitals
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Mission Lifeline Stroke

- $5.6 Million Grant through the Helmsley Foundation to improve the work already being done in the state for Stroke Care

- Several focus’
  - EMS
  - Public Awareness-Primary Prevention
  - Rehab and Secondary Prevention
  - Telemedicine
  - Stroke Survivor Network
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Survey Readiness

Joint Commission Certification for Stroke is once every 2 years
Survey is a 1 day survey with 1 surveyor
Review processes through the ER, to ICU, to nursing units
Review data
Review education completed by staff and to the public
Discuss process improvement
Guideline adherence
Patient satisfaction
Aspects of Stroke Coordinators Role

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Stroke Support Group

Trinity Hospital hosts a Stroke Support group that meets every month on the 3rd Wednesday at 7 pm at Trinity Riverside. Meetings include education the first 30 minutes regarding a topic of the group's choosing and then fellowship and discussion among the members of the group. The group includes Stroke Survivors as well as caregivers of Stroke Survivors.

“Old” Stroke Survivors making phone calls to Recent Stroke Survivors
In Summary

Each Stroke Coordinators role is different within their facility
Know that all of us at this level are working together to make a
difference in the care that stroke patients receive
Great teamwork involving the Hospitals, Critical Access Hospitals,
EMS to make that happen

Any Questions????