JHS Stroke Program

2017 JHS Annual Mandatory Education
Learner Objectives

At the conclusion of this module learners will be able to:

- State the definition of stroke
- Discuss the pathophysiology of stroke (brain attack)
- Identify common effects of a stroke
- Discuss stroke recovery
- Understand how to activate the Stroke Alert System at JMH & JNMC
Stroke Center Designation

As a Stroke Center we are required to conform with:

- Clinical practice guidelines developed by Brain Attack Coalition & AHA/ASA
- Joint Commission’s Specifications Manual for National Inpatient Hospital Quality Measures for Primary Stroke Centers
- CMS Core Measure indicators for Primary (both hospitals) and Comprehensive Centers (for JMH)
- AHCA (State of Florida) Comprehensive Stroke Center standards (for JMH)
Stroke = Brain Attack

Occurs when there is a disruption of blood supply to the brain.
Stroke = Brain Attack

• 1st cause of long term disability
• 5th leading cause of death in the US
• Affects 1 in 20 people
• Medical emergency
  – Community: 911
  – JMH: 85-6333
  – JNMC: 54-5555

• Time lost is brain lost!!
Ischemic Stroke

• Ischemic Stroke is the most common type (approx. 87%) of all Strokes; it occur as a result of an obstruction within a blood vessel supplying blood to the brain

• There is a treatment for Ischemic strokes.
  – Treatment needs to be started within 3 hours from “last time seen well” (patient seen without symptoms) as per FDA
  – 3 - 4.5 hours under special inclusion criteria (AHA) and written consent

• Extended treatment window in select cases through endovascular procedures
  – Intra-arterial (IA) Activase (tPA)
  – IA stent retrievers “stentriever” (Solitaire, Trevo, etc.)
Hemorrhagic Stroke

- Hemorrhagic stroke accounts for about 13% of stroke cases.
- It results from a weakened vessel that ruptures and bleeds into the surrounding brain.
- The blood accumulates and compresses the surrounding brain tissue.
- The two types of hemorrhagic strokes are:
  - subarachnoid hemorrhage
  - intracerebral also known as intraparenchymal or “within the brain hemorrhage”
Impact of Stroke

- About 795,000 Americans suffer a new or recurrent stroke each year
- Strokes kills more than 137,000 people each year
- A stroke occurs every 40 seconds; and every 4 minutes someone dies from a stroke
- Of every 5 deaths from stroke, 2 occur in men, 3 in women
- Stroke rates are higher for African Americans & Hispanic Americans
- Stroke care costs this country nearly 80 billion dollars every year
Stroke Risk Factors – We cannot Modify

- **Age:** The chance of having a stroke approximately doubles for each decade of life after age 55
- **Gender:** (more men have strokes but more women **die** from stroke)
- **Race:** (more African-American and Hispanics have strokes)
- **Personal or family history:** such as stroke, transient ischemic attack or TIA, heart attack, disease, sickle cell anemia
Stroke Risk Factors – We can modify

• Hypertension (high blood pressure) is the single most important risk factor for both ischemic and hemorrhagic strokes

• Diabetes (high blood sugar)

• High cholesterol
Stroke Risk Factors - Modifiable

- Smoking
- Excessive alcohol consumption
Stroke Risk Factors - Modifiable

- Physical inactivity
- Illegal drug use
- Birth control pill use
- Heart disease – “Atrial Fibrillation”
- Obesity
Warning Signs
Requires Immediate Medical Attention

- Unrelenting headache or sudden severe headache with no known cause
- Sudden dizziness or sudden fall
- Sudden trouble walking, loss of balance/coordination
- Sudden loss of vision in one or both eyes or double vision
- Sudden confusion, trouble speaking or understanding
- Sudden difficulty swallowing
- Sudden numbness or weakness in arms, legs or face, especially on one side of the body
- Transient Ischemic Attack (TIA) symptoms that may last 24 hours or less
STROKE ALERT
Acute focal neurological symptom?

CALL
• JMH: 85-6333
• JNMC: 54-5555

STROKE IS A MEDICAL EMERGENCY
Most Common effects of stroke

- Hemiparesis (weakness on one side of the body)
- Hemiplegia (paralysis on one side of the body)
- One-sided neglect
- Aphasia (difficulty with speech & language)
- Dysphagia (difficulty swallowing)
- Emotional and mood changes
- Decreased field of vision, trouble with visual perception
- Cognitive changes- (memory, judgment, problem solving, etc.)
- Behavior changes- (personality changes, improper language or actions)
- Decreased sensation in one side of the body
Common emotional responses to stroke

- Depression
- Apathy and lack of motivation
- Tiredness
- Reflex crying
- Frustration
- Denial
What can be done to prevent a stroke?

• Education on warning signs and risk reduction strategies
Stroke Recovery

• Stroke effects are greatest immediately afterward
• Some improvement is spontaneous
• Stroke rehab programs
  – Help improve abilities
  – Should start **as soon as possible**
  – Help develop new skill acquisition and coping techniques
• Depression should be treated
References

• American Stroke Association (ASA) web site: http://www.strokeassociation.org
• JHS Patient information handout “Ischemic Strokes”
• The Brain Attack Coalition web site http://www.stroke-site.org/
• The Joint Commission web site: http://www.jointcommission.org/
• UM Gordon Center ASLS provider Manual 9th Edition