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## Stroke: Ischemic

## Instructor Information

**Patient Name:** Ubaldini, Gina

**Simulation Developer(s):** Debra A. Mosley

### Scenario Purpose:

- Perform the required steps to care for the patient presenting with an ischemic stroke within the specified time goals per protocol

### Learner(s):

- Registered Nurses (RN), Licensed Practical Nurses (LPN) (depending on facility protocols)
- Others as desired, depending on facility protocols
- Recommend no more than 6 learners (3 of which can be observers)

### Time Requirements:

- Setup: 5 minutes
- Scenario: 25 minutes
- Debrief: 25 minutes
- Reset/Breakdown: 5 minutes

### Confederates:

- **Stroke Team**
  - Neurologist
  - Intensive Care Unit/Stroke Unit Nurse

### Scenario Prologue:

- **Outpatient/Inpatient:** Sixty-five (65) year-old female presented requesting a refill on her “blood pressure medication.” She has a twelve (12) year one pack per day history of smoking, hypertension, and non-compliance. Home medications are Metoprolol and a baby aspirin a day. The patient has not taken her Metoprolol for three (3) months because of complaints of feeling tired. She denies allergies to medications. Her blood pressure on admit was 198/101 upon arrival and 10 mg of Labetolol IV was given one (1) hour ago. She is currently on the cardiac and vital sign patient monitor resting in the Outpatient treatment/Emergency Department.
- **The simulation begins when the learner(s) enter the room**

### Patient Information:

- **General:** Alert and distressed
- **Weight/Height:** 75kg (165lbs) 170.2cm (67in)
- **Vital Signs:** BP 172/90; Temp 98.3; HR 118; RR 22; O2 Sat 95%
- **Pain:** Unable to determine
- **Neurological:** Left pupil larger than the right; right facial droop; right hemiparesis; Wernicke’s aphasia
- **Respiratory:** Clear
- **Cardiac:** Sinus tachycardia
- **Gastrointestinal:** Unremarkable
- **Genitourinary:** Unremarkable
- **Musculoskeletal:** Right hemiparesis
- **Skin:** Unremarkable
- **Past Medical History:** Hypertension
- **Past Surgical History:** Unremarkable

#### Medications:

- Metoprolol 50 mg two times a day
- Aspirin 81 mg one time a day

#### Allergies:

- NKDA



Green Text Confederate



Red Text Physiology Change

## Learning Objectives

**Patient Name:** Gina Ubaldini

**Simulation Developer(s):** Debra A. Mosley

**Scenario Purpose:**

- Perform the required steps to care for the patient presenting with an ischemic stroke within the specified time goals per protocol

**Pre-Session Activities:**

- Complete training on management of care for the patient experiencing a stroke
- Review the American Heart Association's Stroke algorithm
- Review policies and protocols on the management of care for the patient experiencing a stroke

**Potential Systems Explored:**

- What facility specific policies or protocols exist for management of care for the patient experiencing an ischemic stroke?
- How would the process differ for an outpatient versus an inpatient?
- How would the plan of care differ for an ischemic versus hemorrhagic stroke?
- What tools are available to assess and prioritize the assessment and care of the patient experiencing a stroke?
- What risk factors and complications are important to consider when caring for the patient experiencing a stroke?
- What facility specific documentation is required for the patient experiencing a stroke?
- stroke algorithm
- Clarify facility specific interdisciplinary roles when managing care for the patient demonstrating signs and symptoms of a stroke

**Scenario Specific Learning Objectives (Knowledge, Skills, and Attitudes = K/S/A):**

**\*\*The learner(s) will demonstrate ICARE principles throughout the scenario.**

**Learning Objective 1:** Complete an immediate general assessment within ten minutes on the patient presenting with signs and symptoms of a stroke per facility protocol

- a. K- Correlate assessment findings with a possible stroke*
- b. S- Establish the time of last normal status*
- c. S- Elevate the head of the bed to thirty (30) degrees; head is midline*
- d. S- Assess for the presence of adequate airway, breathing, and circulation*
- e. S- Obtain vital signs*
- f. S- Establish intravenous access*
- g. S- Ensure suction is available*
- h. S- Perform a neurologic assessment*
- i. S- Obtain a fingerstick blood sugar per protocol*
- j. S- Ensure an ECG has been completed*

**Learning Objective 2:** Implement facility specific protocol to manage the care of the patient presenting with signs and symptoms of a stroke

- a. S- Activate facility specific stroke protocol and/or Stroke team within ten (10) minutes*
- b. S- Ensure diagnostic tests have been initiated within 10 minutes or per facility protocol*
- c. K- Identify designated staff member to perform stroke assessment*  
*S- Ensure stroke assessment and CT scan/MRI without contrast are complete within twenty-five (25) minutes or per facility protocol*  
*A- Display a sense of urgency while maintaining a composed demeanor*
- d. S- Ensure the CT scan/MRI is interpreted within forty-five (45) minutes*
- e. K- Establish that patient is a candidate for fibrinolytic therapy*

*f. K- Initiate stroke pathway for ischemic stroke within sixty (60) minutes*

**Learning Objective 3:** Communicate effectively when managing the care of the patient experiencing a stroke

- a. S- Call the healthcare provider*
- b. S- Perform ISBAR communication*
- c. S- Ensure the patient and family are kept informed at a level they can understand*
- d. S- Complete required documentation while placing an emphasis on pertinent details*

**Debriefing Overview:**

- Ask the learner(s) how they feel after the scenario
- Have the learner(s) provide a summary of the scenario from a healthcare provider/clinical reasoning point of view
- Discuss the scenario and ask the learners what the main issues were from their perspective
- Ask what was managed well and why.
- Ask what they would want to change and why.
- For areas requiring direct feedback, provide relevant knowledge by stating “I noticed you [behavior]...” Suggest the behavior they might want to portray next time and provide a rationale. “Can you share with us?”
- Indicate closing of the debriefing but provide learners with an opportunity to voice one or two take-aways that will help them in future practice
- Lastly, ask for any outstanding issues before closing the debrief

**Critical Actions/Debriefing Points:**

- Identifies symptoms of a possible stroke; elevates the head of bed to 30°; head is midline
- Activate Stroke Team within 10 minutes
- Perform immediate assessment (ABCs, vital signs, secures IV access, FSBS, labs, neurological assessment, and ECG) within 10 minutes
- Provide patient education on plan of care and purpose of NPO status until dysphasia screen is done
- Perform ISBAR communication
- Ensure the patient has undergone stroke assessment scale by member of Stroke Team
- Make certain CT scan/MRI is complete within 25 minutes and interpreted within 45 minutes
- Recognize patient is a candidate for fibrinolytics
- Begin ischemic stroke pathway within 60 minutes
- Complete facility specific documentation

## Simulation Set-Up

**Patient Name:** Gina Ubaldini

**(Standardized Patient)**

**Simulation Developer(s):** Debra A. Mosley

### Room Set-up:

- Inpatient: Set up like an Inpatient room or outpatient/emergency department exam room

### Patient Preparation:

- Hospital gown if inpatient; street clothes if outpatient
- Moulage right facial droop (can use cotton balls or gauze in mouth to simulate)
- Saline lock in the right antecubital space
- Monitor leads are on the patient
- Monitoring device (3 Wave form):
  - ECG (Sinus tachycardia), O2 Sat 95%, BP 172/90, Temperature 98.3, HR 118, RR 22

### Have the following equipment/supplies available:

- Telephone
- Gloves
- Hand sanitizer
- Oxygen source with nasal cannula
- Facility specific stroke protocol
- Blood pressure cuff
- Stethoscope
- Stroke protocol (laminated)
- Telephone list on wall of neurology and stroke team
- Bedside table

Note: 5.8 Simpad software update is required to load scenarios

(<http://cdn.laerdal.com/downloads/f4343/simpad-upgrade.vs2>) Scenarios may be used with Laerdal or LLEAP software.

### Scenario Supplements:

- Confederate scripts
- Confederate name tags
- Patient identification band
- Orders
- Fingerstick Blood Sugar result
- CT Scan / MRI results
- Patient chart
- ZZ test patient/Demo patient in CPRS (if desired)

## Flowchart

### \*\* Initial State:

- Mental Status: Alert and distressed
- SpO2: 95%
- BP: 172/90
- Temp: 98.3
- HR: 118
- RR: 22
- ECG: Sinus tachycardia
- Pain level: Unable to determine due to difficulty with communicating
- Skin: Unremarkable

Sixty five (65) year old female presented requesting a refill on her "blood pressure medication." She has a 12 year one pack per day history of smoking, hypertension, and non-compliance. Home medications are Metoprolol and a baby aspirin a day. The patient has not taken her Metoprolol for three (3) months because of complaints of feeling tired. She denies allergies to medications. Her blood pressure was 198/101 upon arrival and 10 mg of Labetolol IV was given 1 hour ago. She has a saline lock in the right antecubital space.

### \*\*Did not... \*\*

- ... provide patient education
- The patient becomes more anxious and stating "Boy! Soap!"
- ... verbalize National Institute of Neurological Disorders and Stroke (NINDS) Time Goals for first 10 minutes
- The patient will begin to cry making motions with her left hand mimicking a fingerstick blood sugar test, lab specimen blood draw, ECG, and order CT scan/MRI.

- Patient is holding the top, left side of her head with her left hand repeatedly stating "Too! Hat!" (right facial droop and right-sided hemiplegia are present)
- Recognizes Wernicke's aphasia
- Elevates the head of bed to 30°; head is midline
- Activates Stroke Team per facility protocol; calls healthcare provider and notifies family
- Assesses ABCs; obtains vital signs; establishes when symptoms began or "last normal"
- Ensures suction and other equipment is available for patient safety and per policy
- Verbalizes general assessment must be completed **within 10 minutes**
- Confirms patency of saline lock or establishes IV access per policy
- Obtains fingerstick blood sugar (result is 125) and diagnostics (serum glucose, electrolytes, complete blood count, coagulation studies, pregnancy test per facility policy)
- Completes neurological assessment; NPO; suction is available
- Performs patient education on plan of care
- Orders emergent CT scan/MRI of the brain without contrast
- Obtains a 12 lead ECG but does not delay CT scan/MRI

### \*\*Did not... \*\*

- ... verbalize NINDS Time Goals for first 25 minutes
- The nurse from the ICU/Stroke Team will say "Let's get going here! Time is brain!"

- Stroke Team arrives (Intensive Care Unit (ICU)/ Stroke Unit nurse and a neurologist)
- Performs ISBAR communication
- Verbalizes Stroke Team assessment and CT scan must be completed **within 25 minutes**
- Neurologist performs stroke scale assessment, obtains patient history, and establishes time of symptom onset per protocol
- \*\* (for time constraints, assume the CT scan has been completed)**

### \*\*Did not... \*\*

- ... verbalize NINDS Time Goals for first 45 minutes
- The neurologist will say "We need to make a decision soon! How much time do we have?"

- Verbalizes CT scan must be interpreted **within 45 minutes**
- Neurologist states "The CT scan / MRI is negative for any intracerebral hemorrhage."

### \*\*Did not... \*\*

- ... verbalize NINDS Time Goals for first 60 minutes
- The nurse from the ICU/Stroke Team will say "How much time do we have?"

- Verbalizes patient is a candidate for fibrinolytics and the need to begin ischemic stroke pathway **within 60 minutes**
- Neurologist states "Let's prepare for fibrinolytics!"
- Provides patient with reassurance, an update on the plan of care

- ICU/Stroke Unit nurse states "You can give me report since I will be her nurse in the unit."
- Provides ICU/Stroke Unit nurse with handoff report
- Completes facility specific documentation

### Critical Actions/Debriefing Points:

- Identifies symptoms of a possible stroke; elevates the head of bed to 30°; head is midline
- Activate Stroke Team within 10 minutes
- Perform immediate assessment (ABCs, vital signs, secures IV access, FSBS, labs, neurological assessment, and ECG) within 10 minutes
- Provide patient education on plan of care and purpose of NPO status until dysphasia screen is done
- Perform ISBAR communication
- Ensure the patient has undergone stroke assessment scale by member of Stroke Team
- Make certain CT scan/MRI is complete within 25 minutes and interpreted within 45 minutes
- Recognize patient is a candidate for fibrinolytics
- Begin ischemic stroke pathway within 60 minutes
- Complete facility specific documentation



Confederate



Change in physiology



Red border incorrect action

## Supplements

**Confederate Scripts**

**Name Tags**

**Identification Band**

**Nurses Notes**

**Orders**

**Fingerstick Blood Sugar Result**

**CT Scan/MRI Result**

**Stroke Protocol**

## Confederate Scripts

### Gina Ubaldini (Patient)

The Patient is holding the top, left side of her head with her left hand repeatedly stating “Too! Hat!” (right facial droop and right-sided hemiplegia are present)

- If the learner does not provide patient education, patient will become more anxious stating “Boy! Soap!”
- If the learner does not verbalize National Institute of Neurological Disorders and Stroke (NINDS) Time Goals for first 10 minutes, patient will begin to cry making motions with her left hand mimicking a fingerstick blood sugar test, lab specimen blood draw, ECG, and order CT scan/MRI

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### Intensive Care Unit/Stroke Unit Nurse

- If the learner does not verbalize NINDS Time Goals for first 25 minutes, the nurse from the Stroke Team will say “Let’s get going here! Time is brain!”
- If the learner does not verbalize NINDS Time Goals for first 45 minutes, the nurse from the ICU/Stroke Team will say “We need to make a decision soon! How much time do we have?”
- If the learner does not verbalize NINDS Time Goals for first 60 minutes, the nurse from the ICU/Stroke Team will say “How much time do we have?”
- After the neurologist states “Let’s prepare for fibrinolytics”, the ICU/Stroke Team nurse will state to the learner (s), “You can give me report since I will be her nurse in the unit”

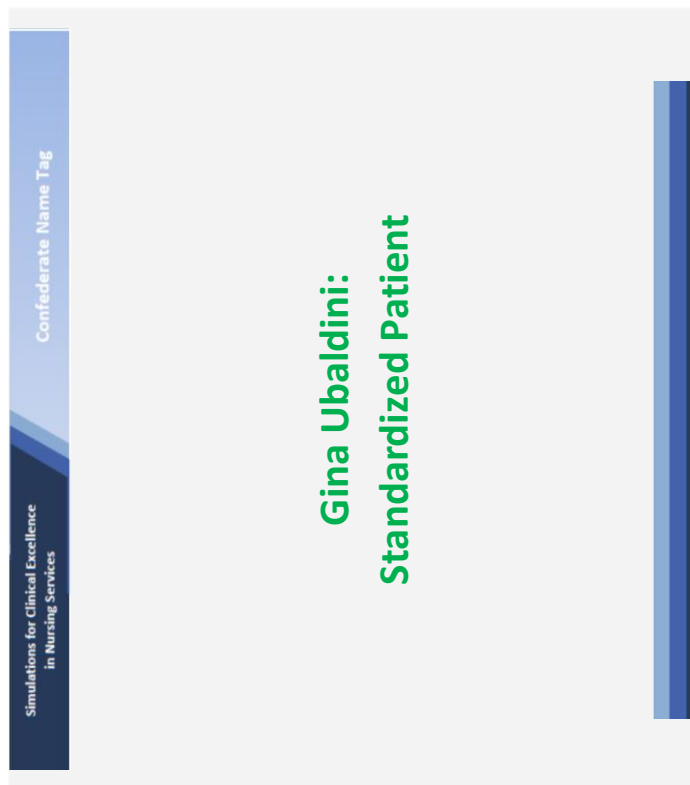
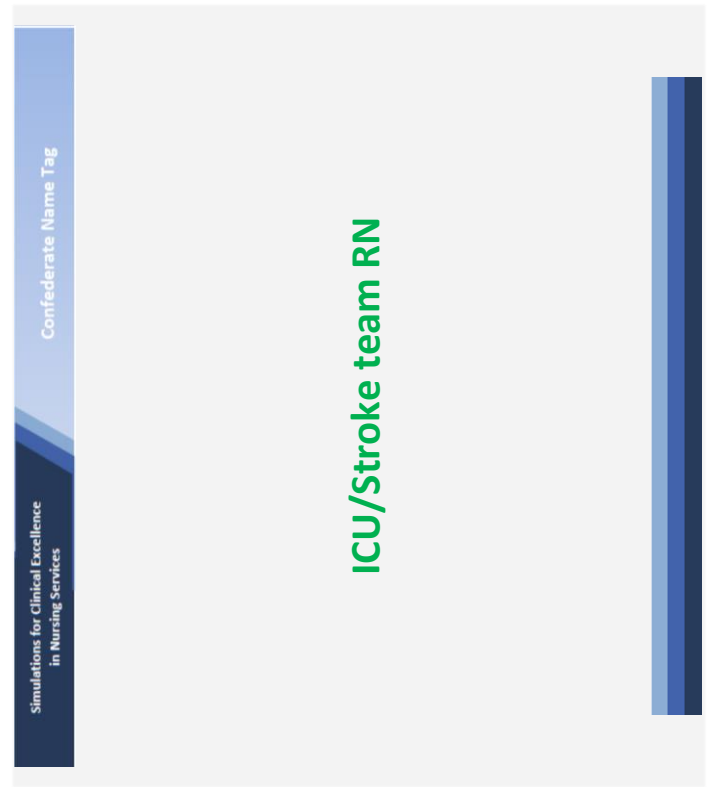
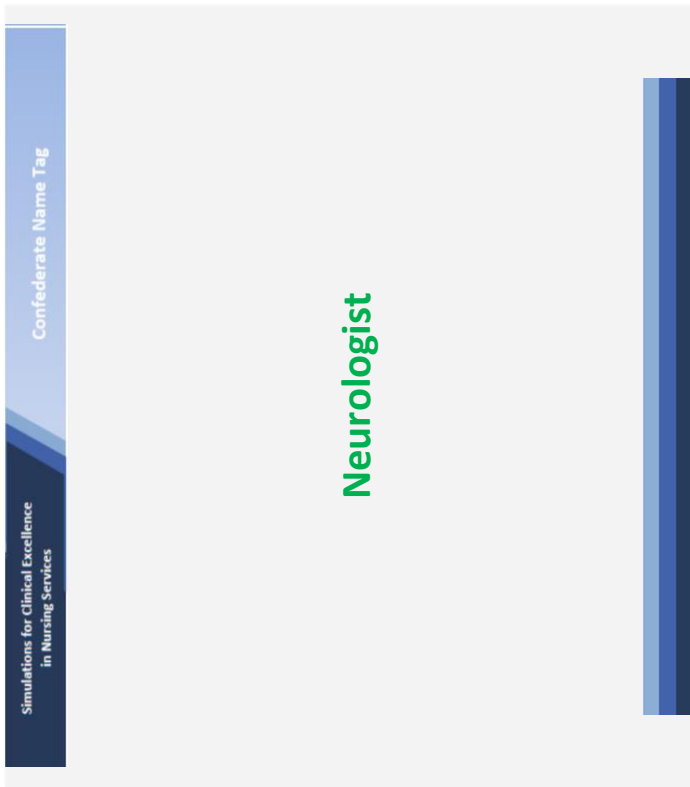
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### Neurologist

- The neurologist will perform stroke the scale assessment, obtain patient history, and establish the time of symptom onset
- The neurologist will state “The CT scan / MRI is negative for any intracerebral hemorrhage.”
- The neurologist will state “Let’s prepare for fibrinolytics!”



## Confederate Name Tags



## Patient Identification Band

Patient Identification Band	
<b>Ubal dini, Gina</b>	Dr. P. Stein
Age: 65	
000-00-0000	Allergic: NKDA

## Nurses Notes

**Date:** Today

**Patient Name:** Gina Ubaldini

**Mode of Arrival:** Personally owned vehicle

**Accompanied by:** Family member (optional)

Insert picture of patient  
here

**Chief Complaint:** Sixty-five (65) year old female presented requesting a refill on her “blood pressure medication.” Blood pressure was 198/101 upon arrival and 10 mg. of Labetolol was given IV 1 hour ago.

**Active Problems:** Hypertension

### **Patient information:**

- **General:** Alert and distressed
- **Weight/Height:** 75kg (165lbs) 170.2cm (67in)
- **Vital Signs:** BP 172/90; Temp 98.3; HR 118; RR 22; O2 Sat 95%
- **Pain:** Unable to determine
- **Neurological:** Left pupil larger than the right; right facial droop; right hemiparesis; Wernicke’s aphasia
- **Respiratory:** Clear
- **Cardiac:** Sinus tachycardia
- **Gastrointestinal:** Unremarkable
- **Genitourinary:** Unremarkable
- **Musculoskeletal:** Right hemiparesis
- **Skin:** Unremarkable
- **Past Medical History:** Hypertension
- **Past Surgical History:** Unremarkable

### **Medications:**

- Metoprolol 50 mg two times a day
- Aspirin 81 mg one time a day

### **Allergies:**

- No known drug allergies (NKDA)

### **SCREEN FOR ABUSE/NEGLECT:** N/A

Does the patient show any evidence of abuse? No

Does the patient feel safe in his/her current living arrangements? Yes

Suicidal or Homicidal Ideation in the past two weeks? No

Is the patient currently enrolled in primary care? Yes

### **Diagnostic Procedures Ordered:**

- ( ) X-Ray
- ( ) Labs
- ( ) None
- ( ) EKG
- ( ) Head CT without contrast
- ( ) Other

**Triage Classification:** Emergency Severity Index

**Patient Disposition:** To be determined

**Signed by:** /DM/

## Orders

### Patient Information

**Ubal dini, Gina**

**Dr. P. Stein**

**Age:** 65

**Social Security #:** 000-00-0000

**Allergies:** NKDA

**Weight:** 75kg (165lbs)

**Height:** 170.2cm (67in)

**Date/Time:** Today/Now

Initiate Stroke Protocol

DO NOT WRITE IN THIS SPACE

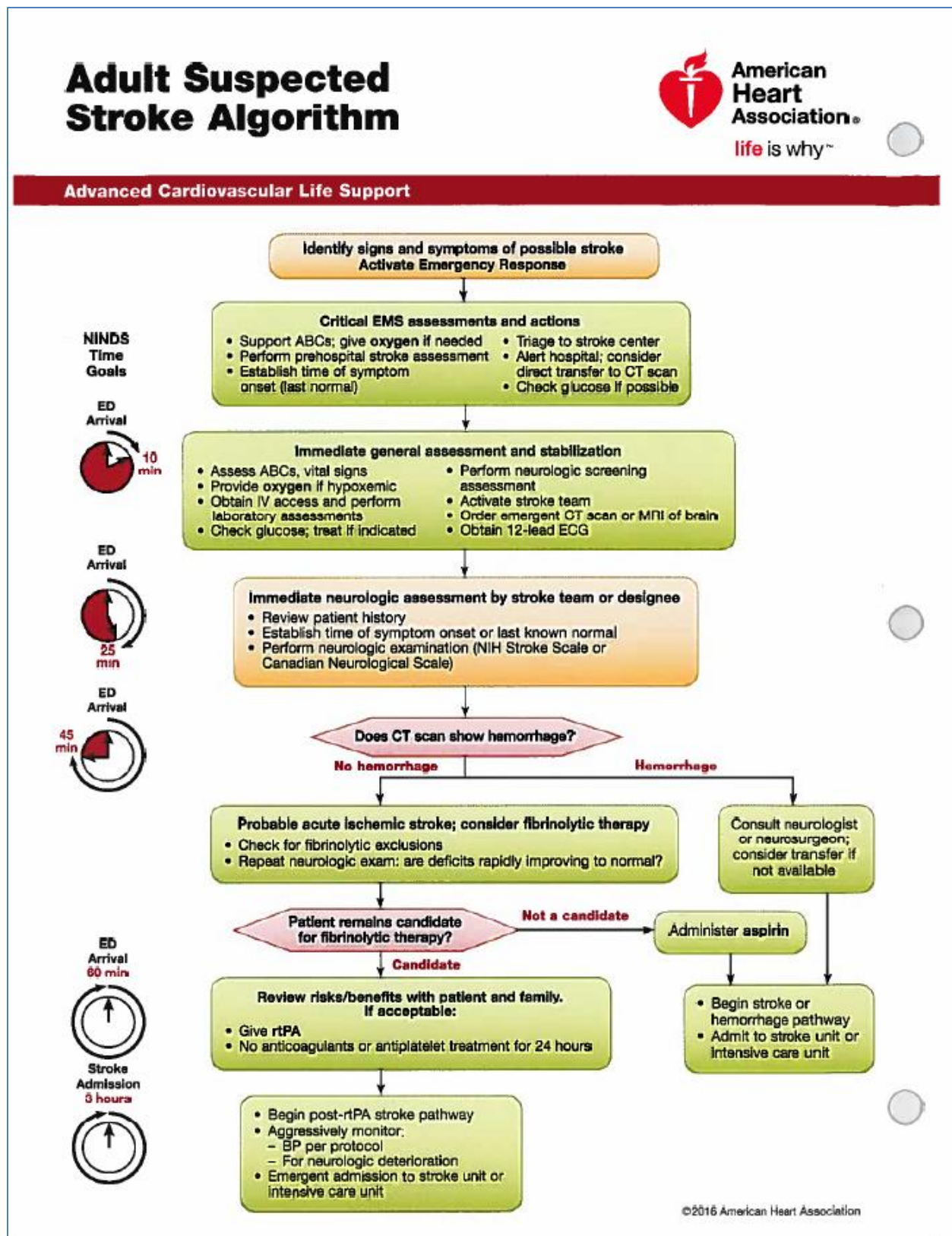
## Fingerstick Blood Sugar Result

Fingerstick Blood Sugar	
Date: Today	Gina Ubaldini
99 mg/dL	

CT or MRI Result

CT Scan or MRI Results	
Date: Today	Gina Ubaldini
Negative for intracerebral hemorrhage	

## Stroke Protocol Example



## References

- American Heart Association. (2016). Acute stroke case. In *Advanced cardiac life support provider manual* (pp. 73-91). Dallas, TX: American Heart Association.
- Department of Veterans Affairs. (2011). *Treatment of acute ischemic stroke (AIS)*, (VHA Directive 2011-038). Washington, DC: VHA Publications.
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- Heart and Stroke Foundation. (2014). *Canadian stroke best practice recommendations: Overview and methodology*. Retrieved from <http://www.strokebestpractices.ca>
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