Simulations for Clinical Excellence in Nursing Services

Stroke: Hemorrhagic

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Stroke: Hemorrhagic
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 hemorrhagic 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.  
- **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

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**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 a hemorrhagic 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 a hemorrhagic 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
  d. **S**- Ensure stroke assessment and CT scan/MRI without contrast are complete within twenty-five (25) minutes or per facility protocol
  e. **A**- Display a sense of urgency while maintaining a composed demeanor
  f. **S**- Ensure the CT scan/MRI is interpreted within forty-five (45) minutes
  g. **K**- Establish that patient is not a candidate for fibrinolytic therapy
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 not a candidate for fibrinolytics
   • Begin hemorrhagic stroke pathway within 60 minutes
10. Complete facility specific documentation
Simulation Set-Up

Patient Name: Gina Ubaldini
Simulation Developer(s): Debra A. Mosley

Room Set-up:
- Inpatient: Set up like an Inpatient room or outpatient exam room

Patient Preparation:
- Hospital gown if inpatient; street clothes if outpatient
- Moulage right facial droop (can use cotton balls or gauze in mouth)
- Saline lock in the right antecubital space (if inpatient)
- Monitor leads are on the patient (if inpatient)
- 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
- Posted phone numbers for stroke team and neurologist (laminated)
- Stroke protocol
- Gloves
- Hand sanitizer
- Oxygen source with nasal cannula
- Facility specific stroke protocol
- Blood pressure cuff
- Stethoscope
- Bedside table

Note: 5.8 Simpad software update is required to load scenarios
(https://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)
**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 not a candidate for fibrinolytics
- Begin hemorrhagic stroke pathway within 60 minutes
- Complete facility specific documentation

**Flowchart**

**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.**

****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

**Patient is holding the top, left side of her head with her left hand repeatedly stating “Tool! 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

**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)**

**Verbalizes CT scan must be interpreted within 45 minutes**
- Neurologist states “The CT scan / MRI shows a left parietal intracerebral hemorrhage.”

**Verbalizes patient is a candidate for fibrinolytics and the need to begin ischemic stroke pathway within 60 minutes**
- Neurologist states “Let’s transfer her to the ICU/Stroke unit and consult a neurosurgeon STAT!”
- 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
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 “Tool! 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

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 fibrinolysis”, 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”

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 shows a left parietal intracerebral hemorrhage.”
- The neurologist will state “Let’s transfer her to the ICU/Stroke unit and consult a neurosurgeon STAT!”
Simulations for Clinical Excellence in Nursing Services

Confederate Name Tags

Neurologist

Stroke Team RN

Gina Ubaldini: Standardized Patient

Family Member

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Simulations for Clinical Excellence in Nursing Services

Stroke: Hemorrhagic

Patient Identification Band

Ubaldini, Gina  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)

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

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/

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

Allergies:
- No known drug allergies (NKDA)
## Orders

### Patient Information

- **Ubaldini, 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**

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**Simulations for Clinical Excellence in Nursing Services**

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**SimLEARN**

Excellence in Veterans’ Healthcare
Fingerstick Blood Sugar Result

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<tr>
<th>Date: Today</th>
<th>Gina Ubaldini</th>
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CT Scan or MRI Results

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<tr>
<td>There is a large left parietal intracerebral hemorrhage</td>
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Simulations for Clinical Excellence in Nursing Services

Stroke: Hemorrhagic

Stroke Protocol Example

**Adult Suspected Stroke Algorithm**

**Advanced Cardiovascular Life Support**

- Identify signs and symptoms of possible stroke
  - Activate Emergency Response
- Critical EMS assessments and actions
  - Support ABCs; give oxygen if needed
  - Perform prehospital stroke assessment
  - Establish time of symptom onset (last normal)
  - Triage to stroke center
  - Alert hospital; consider direct transfer to CT scan
  - Check glucose if possible
- Immediate general assessment and stabilization
  - Assess ABCs, vital signs
  - Provide oxygen if hypoxemic
  - Obtain IV access and perform laboratory assessments
  - Check glucose; treat if indicated
  - Perform neurologic screening assessment
  - Activate stroke team
  - Order emergent CT scan or MRI of brain
  - Obtain 12-lead ECG
- Immediate neurologic assessment by stroke team or designee
  - Review patient history
  - Establish time of symptom onset or last known normal
  - Perform neurologic examination (NIH Stroke Scale or Canadian Neurological Scale)

Does CT scan show hemorrhage?

- No hemorrhage
  - Probable acute ischemic stroke; consider fibrinolytic therapy
  - Check for fibrinolytic exclusions
  - Repeat neurologic exam: are deficits rapidly improving to normal?
- Hemorrhage
  - Consult neurologist or neurosurgeon; consider transfer if not available
- Patient remains candidate for fibrinolytic therapy?
  - Candidate
    - Review risks/benefits with patient and family
      - If acceptable:
        - Give rPA
        - No anticoagulants or antiplatelet treatment for 24 hours
        - Begin post-rPA stroke pathway
        - Aggressively monitor
          - BP per protocol
          - For neurologic deterioration
          - Emergent admission to stroke unit or intensive care unit
    - Not a candidate
      - Administer aspirin
      - Begin stroke or hemorrhage pathway
      - Admit to stroke unit or intensive care unit

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References


