

SCRIPT

CONFUSION AND SPEECH IMPAIRMENT



SCENARIO

#648

NAME

MARY BOYLE

SPECIALTY

Neurology

DIFFICULTY LEVEL

INTERMEDIATE

SIMULATION ENVIRONMENT

PRE HOSPITAL - LIVING ROOM

Scenario

General description of the scenario info. Corresponds to the initial information presented to the trainee when selecting this scenario.

Title

Confusion and speech impairment

Context

Mrs. Boyle is normally fit and well. Today, after an office dinner out, she returned back home and her husband found her on the living floor very confused.

Briefing

Female, 33 years old. Was found collapsed on the floor confused and with slurred speech after returning from dinner with some company colleagues. Her husband called Emergency Medical Services. On arrival, he reports that he last saw her well three hours ago, before she left home.

General learning objectives

In this scenario, the learner should:

Identify acute stroke.

Perform neurological assessments through stroke screening (FAST, FAST-ED, or race scale).

Evaluate eligibility for transport to a stroke center.

Specific learning objectives

Important when questioning the patient:

Characterize the main complaints (confusion and slurred speech) and determine the onset time

Ask about similar situations in the past, further co-morbidities, regular medication, alcohol or smoking habits

Fundamental in ABCDE:

Perform vital signs vigilance in acute care (blood glucose, blood pressure, oxygen saturation)

Evaluate the presence of stroke mimics

Apply stroke screening (FAST, FAST-ED, race scale) and search for neurological deficits

About the treatment:

Pre-notify stroke unit

Employ the correct decision for transportation (hospital, stroke ready hospital, or comprehensive hospital)

Pre-simulation notes

-

Environment

Pre Hospital

Specialty

Neurology

Difficulty Level

Intermediate

Reviewers

Angels Initiative

Patient characteristics

Characterization of the patient's demographic, habits, behavior and specific status effects.

Avatar



Patient Name

Mary Boyle

Age

33 years

Race/Ethnicity

European/Caucasian

Smoker

No

Sedated

No

Agitated

No

Facial palsy

0

Renal metabolic compensation

Auto

Gender

Female

Eye color

Blue

Conscious

Yes

Confused

Yes

Last meal over 2h

Yes

Speech impairment

Yes

Patient parameters

These parameter values are used by the simulator to initialize this scenario.

Systolic arterial blood pressure (mmHg)

145

Heart rate (bpm)

95

Diastolic arterial blood pressure (mmHg)

85

O2 saturation (%)

91

Respiratory rate (/min)

20

Temperature (°C)

36.7

Urinary output (mL/kg/h)

0.8

Height (cm)

174

Potassium (mEq/L)

4.1

Blood glucose (mg/dL)

90

Hemoglobin (g/dL)

14

Weight (kg)

62

BMI

20.5

Sodium (mEq/L)

133

Physical examination

The items below characterize the patient's physical examination and monitoring findings on admission.

Airway

Airway observation

Not a priority

Airway is open, not obstructed and safe.

Breathing

O2 Sat (%)

1st Priority

91 %

Pulmonary auscultation

2nd Priority

Clear to auscultation.

Respiratory rate (/min)

1st Priority

20 /min

Circulation

Blood pressure (mmHg)

1st Priority

145/85 mmHg

Capillary refill time (s)

2nd Priority

1 second

Cardiac auscultation

2nd Priority

Regular rate and rhythm.

Heart rate (bpm)

1st Priority

95 bpm

Pulse palpation

Not a priority

Central - Amplitude: normal; Rhythmic;
Peripheral - Amplitude: normal;
Rhythmic.**Disability**

Blood glucose (mg/dL)

1st Priority

90 mg/dL

Glasgow Coma Scale

1st Priority

13 (E-3; V-4; M-6)

Pupil light reflex

2nd Priority

Right eye: 4 mm; Right eye light: 2 mm;
Left eye light: 7 mm
Left eye: 7 mm; Right eye light: 2 mm;
Left eye light: 7 mm

Exposure

Abdominal palpation

Not a priority

No rigidity. No pain. No guarding or signs of peritoneal irritation. No masses or palpable organomegalies.

Temperature (°C)

1st Priority

36.7°

Dialogues

This is a complete list of all the possible dialogue lines by both the health practitioner (on the left) and the respective responses from the patient (on the right).

SAMPLE

Symptoms

01. Can you tell me your name and your age?

Ahmm.. Mary...

1st Priority

02. What happened to you?

I don't know... with some friends.

1st Priority

03. How active are you in terms of physical activity?

I caaaan... I just... need to reest.

2nd Priority

04. Do you use any illicit drugs?

No.

2nd Priority

05. Are you feeling any pain?

I... terrible... heeadache.

1st Priority

06. Do you smoke?

No.

2nd Priority

07. Do you drink with meals?

Maybeeee....

2nd Priority

08. Did you pass out?

I dooon't... remeeember.

2nd Priority

09. Have you been under any stress lately?

Ahmm, I don't know...

Not a priority

10. Are you having any problems with your eyesight?

I doooooon't...

2nd Priority

11. Do you feel any weakness in your limbs?

I don't think so.

1st Priority

Allergies

12. Do you have any allergies?

No.

2nd Priority

Medications

13. Are you currently taking any medication?

Where... am I?

1st Priority

14. Have you started any new medication?

Ahmm... nooo.

2nd Priority

Past medical history

15. Do you have any health issues?

No.

2nd Priority

Last oral intake

16. When was the last time that you had something to eat?

I caaan't remeeember....

1st Priority

Events

17. When did you last feel well?

My husbaaand... where is he?

1st Priority

Diagnostic strategies

The items below characterize the possible test results during this scenario, including rules that may condition test results.

Decision aids

FAST scale

1st Priority

i.1

Facial droop: Both sides of the face move equally

Arm drift: One arm drifts compared to the other

Speech: Slurred and inappropriate words

FAST-ED scale

1st Priority

i.1

Facial droop: 0 - Both sides of the face move equally

Arm weakness: 1 - One arm drifts down <10 seconds

Speech: 1 - Speech content clearly abnormal or names 1-2 items correctly
Receptive aphasia: 1 - Patient does not understand e.g does not show two fingers

Gaze deviation: 0 - No deviation, eyes move to both sides equally

Denial: 0 - Patient is weak and recognize it

Race scale

1st Priority

i.1

Neglect: 0 - Patient recognize his/her weak arm

Total score: 3 - Immediate transport to the closest stroke ready hospital

Facial palsy: 0 - Facial move is normal, symmetric

Arm motor function: 1 - Maintain the arm against gravity <10 seconds

Leg motor function: 1 - Maintain the leg <5 seconds

Head and gaze deviation: 0 - Absent

Agnosia/Negligente: 0 - There is no asomatognosia nor anosognosia

Aphasia/ Language: 1 - Perform one task correctly

Total score: 3

Electrophysiology

12-Lead ECG

2nd Priority

Sinus rhythm.

Initial notifications

Initial notifications presented to the trainee after a specified amount of time after starting the simulation

Medical test

Time

Clinical information

02:00

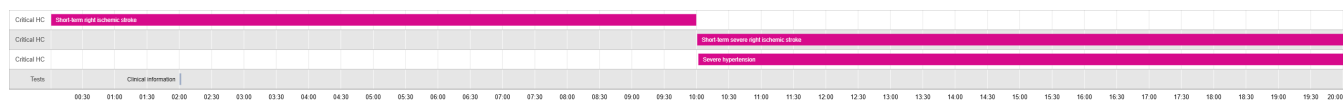
Comprehensive Stroke Center | 30 minutes away

Hospital | 10 minutes away

Stroke Ready Hospital | 20 minutes away

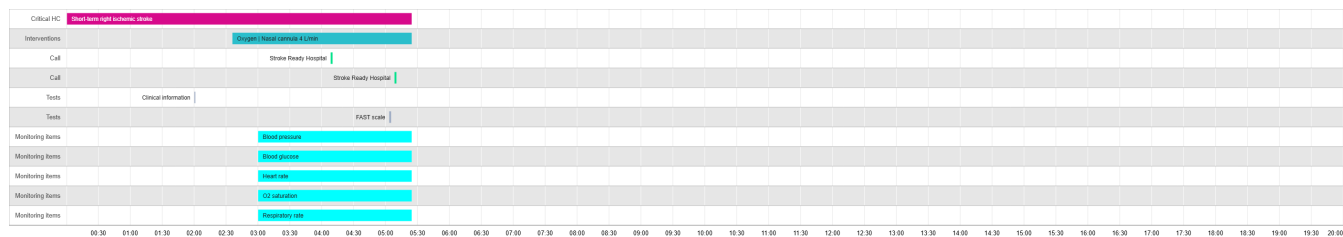
Baseline

This section is automatically generated and predicts scenario behavior assuming no actions by the trainee, which usually represents the worst-case scenario.



Optimal clinical approach

This section previews how the optimal approach resolves the scenario successfully. Comparison with Baseline may be useful to understand the scenario behavior.



Treatment priorities

Treatment items that are considered necessary or adequate to solve this clinical scenario are listed below. Notes: 1st Priority - mandatory items to solve the scenario successfully. 2nd Priority - optional items that are considered adequate, but are not essential. Not a Priority - unnecessary items that are considered inadequate or a waste of time.

i.2 - Call - Stroke Ready Hospital

1st Priority

Initial: Please gather more information regarding the patient's status and contact again.

Call | Stroke Ready Hospital

After stroke screening: The stroke team was notified.

i.3 - Interventions - Oxygen therapy

1st Priority

Due to sats lower than 95%

Interventions | Oxygen | High flow mask

Interventions | Oxygen | Non-rebreathing mask

Interventions | Oxygen | Nasal cannula

i.32 - Call - Hospital

Not a priority

After stroke screening: We are not ready to receive and treat stroke patients.

Call | Hospital

i.33 - Interventions - IV peripheral catheter

2nd Priority

Interventions | Catheters & tubes | IV peripheral catheter

i.34 - Fluids & Electrolytes

2nd Priority

Medications | Fluids & Electrolytes | Fluids IV - Crystalloid

i.40 - Call - Comprehensive Stroke Center

Not a priority

After stroke screening: The patient's condition does not require transfer to a Comprehensive Stroke Center.

Call | Comprehensive Stroke Center

Assessment question(s) after simulation

Questions presented to the trainee in order to have a more detailed evaluation of the use of the clinical scenario.

Summative Multiple Choice Question:

Question

What is the most likely diagnosis?

Correct answer

Acute ischemic stroke

3 Incorrect answer(s)

Hypoglycemia

Epileptic fit

Drug intoxication

Handoff question

Question presented to the trainee to assess their ability to effectively communicate patient information during a transition of care. This question is optional.

Question

Summarize this Body Interact scenario using a structured handoff pattern.

Review handoff pattern

SBAR (Situation, Background, Assessment, Recommendation): Includes current condition and reason for handoff, relevant history and context, assessment details, and recommended actions.

SOAP (Subjective, Objective, Assessment, Plan): Covers patient-reported symptoms and history, measurable data and findings, clinical impressions and diagnoses, and the treatment plan.

I-PASS (Illness Severity, Patient

Summary, Action List, Situation Awareness and Contingency Planning, Synthesis by Receiver): Encompasses illness status, patient background, tasks and actions, potential changes and plans, and confirmation of understanding.

AT-MIST (Age, Time of incident or onset of symptoms, Mechanism of injury/Medical Complaint, Injuries or Inspections head-to-toe, vital Signs, and Treatments): Describes the cause of injury or medical complaint, findings from head-to-toe inspection, vital signs, and treatments provided.

Ending messages

Feedback messages presented to trainees for particular successful or failed approaches and the respective conditional rules that trigger these messages.

Title	Type	Message	Conditional
Send patient to Hospital OR Comprehensive Stroke Center	Failure	This is the end of your virtual simulation scenario. Following the suspected stroke, the patient should have been transferred to the nearest stroke center.	If Call Hospital OR Call Comprehensive hospital is requested, the case will end in failure.
Stroke screening and send patient to Stroke Center	Success	Your practice meets the guidelines' requirements.	

References

1. Powers WJ, Rabinstein AA, Ackerson T, et al. 2018 Guidelines for the Early Management of Patients With Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*. March 2018.

2. Lima Fabricio O., Silva Gisele S., Furie Karen L., et al. Field Assessment Stroke Triage for Emergency Destination. *Stroke*. 2016;47(8):1997-2002.
3. Pérez de la Ossa Natalia, Carrera David, Gorchs Montse, et al. Design and Validation of a Prehospital Stroke Scale to Predict Large Arterial Occlusion. *Stroke*. 2014;45(1):87-91.