

QUICK SOLUTION GUIDE

ACUTE STROKE WITH ALTEPLASE
INDICATION AND ARRHYTHMIA



SCENARIO

#31

NAME

DARRYL SAYLOR

SPECIALTY

Neurology

DIFFICULTY LEVEL

ADVANCED

SIMULATION ENVIRONMENT

INTRA HOSPITAL - EMERGENCY ROOM

This patient is not a real patient, and the clinical scenario, while clinically plausible, is fictional.

Dialogues

Ask the following questions to the patient:

History Taking

Chief Complaint

- How are you feeling?
- What happened to you?

History of Present Illness

- Are you in pain at all?
- How long has it been since the symptoms started?

Past Medical/Surgical History

- Have you ever been diagnosed as having diabetes?

Medications and Allergies

- Are you currently taking any medication?

Physical examination

Perform the following physical examinations:

Airway

- Airway observation

Breathing

- O2 Sat (%)
- Respiratory rate (/min)

Circulation

- Blood pressure (mmHg)
- Heart rate (bpm)

Disability

- Blood glucose (mg/dL)

Medical tests

Request the following medical tests:

Decision aids

- Stroke scale (NIHSS)

Imaging

- Cerebral CT angiography
- Head CT

Treatments

Administer the following treatments:

Stroke treatment

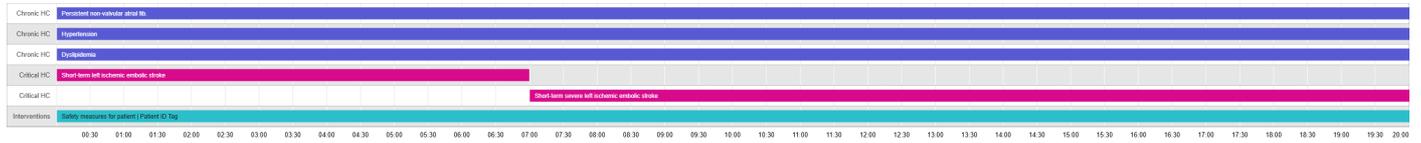
- Medications | Fibrinolytics | Alteplase

Stroke unit

- Call | Stroke unit

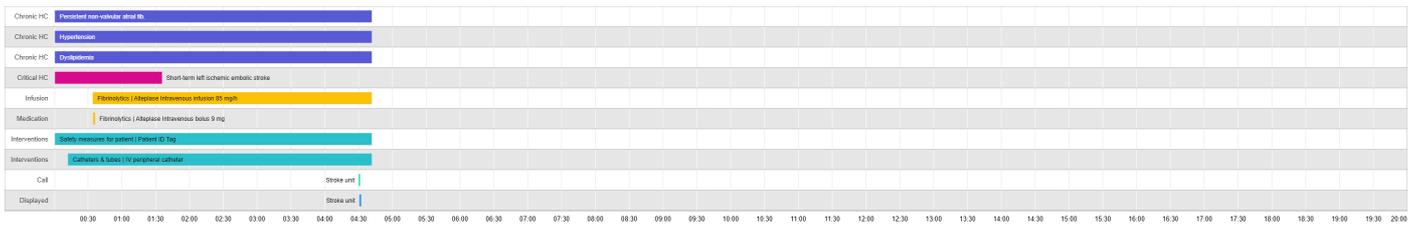
Baseline

Visualize the baseline approach. The baseline predicts scenario behavior assuming no actions by the trainee, which usually represents the worst-case scenario.



Optimal approach - International

Visualize the optimal approach to end your simulation successfully.



Question(s) during the simulation

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

Head CT question:

Question

Based on the patient's clinical assessment and the head CT findings, select the most likely diagnosis:

Correct answer

Acute ischemic stroke

2 Incorrect answer(s)

Hemorrhagic stroke

Meningioma

Head CT question:

Question

Does this CT have signs of any intracranial hemorrhage?

Correct answer

No

1 Incorrect answer(s)

Yes

Head CT question:

Question

Based on the neurological assessment, please rate the stroke severity:

Correct answer

Moderate stroke

2 Incorrect answer(s)

Minor stroke

Severe stroke

Head CT question:

Question

Are there any contraindications for thrombolysis?

Correct answer

No, the patient has no contraindications to alteplase

2 Incorrect answer(s)

Yes, because the patient has a previous diagnosis of hypertension

Yes, because the patient has more than 90kg

Cerebral CT angiography question:

Question

Which vascular lesion is visible?

Correct answer

Occlusion of the left M2 MCA segment

2 Incorrect answer(s)

No occlusion is visible

Occlusion of the left M3 MCA segment

Cerebral CT angiography question:

Question

What is the extent of the established ischemic infarct in the CT scan?

Correct answer

No changes. ASPECTS: 10

2 Incorrect answer(s)

Minor lesion. ASPECTS: 8

Large infarct. ASPECTS: 3

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

Ischemic stroke

3 Incorrect answer(s)

Conversion disorder

Epileptic crisis

Cerebral tumor

**Formative Multiple Choice
Question:**

Question

Does this patient have an indication for thrombectomy?

Correct answer

Yes, the patient has a large vessel occlusion

2 Incorrect answer(s)

No, the patient does not have an intracranial occlusion

No, thrombectomy is contraindicated due to the patient's arrhythmia

**Formative Multiple Choice
Question:**

Question

Considering the patient did not have a visible lesion in the 24-hour Head CT scan. When should the patient start oral anticoagulation?

Correct answer

Within 72 hours after stroke

2 Incorrect answer(s)

7-14 days after stroke

More than 14 days after stroke

Formative Multiple Choice Question:

Question

What is the correct option regarding the use of antiarrhythmic medication for this patient?

Correct answer

Antiarrhythmic medication can be administered in the sub-acute phase, considering the patient's evolution

2 Incorrect answer(s)

The patient should start antiarrhythmic medication in the acute phase to restore sinus rhythm

The patient should never use antiarrhythmic medication due to the embolic risk

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.