

QUICK SOLUTION GUIDE

ACUTE ISCHEMIC STROKE WITH
ALTEPLASE BORDERLINE INDICATION



SCENARIO

#35

NAME

MARTIN MASTERSON

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.

BODY INTERACT™
VIRTUAL PATIENTS

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 angiography
- Cerebral perfusion CT
- Head CT

Treatments

Administer the following treatments:

To treat: ischemic embolic right stroke/severe ischemic embolic right stroke

- Medications | Fibrinolytics | Alteplase

To treat: ischemic embolic right stroke/severe ischemic embolic right stroke. One of the following:

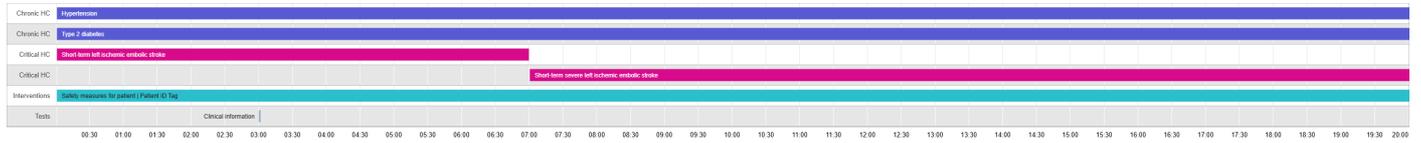
- Call | Thrombectomy
- Call | Thrombectomy by interv. neuroradiology

To treat: ischemic embolic right stroke/severe ischemic embolic right stroke

- Call | Stroke unit

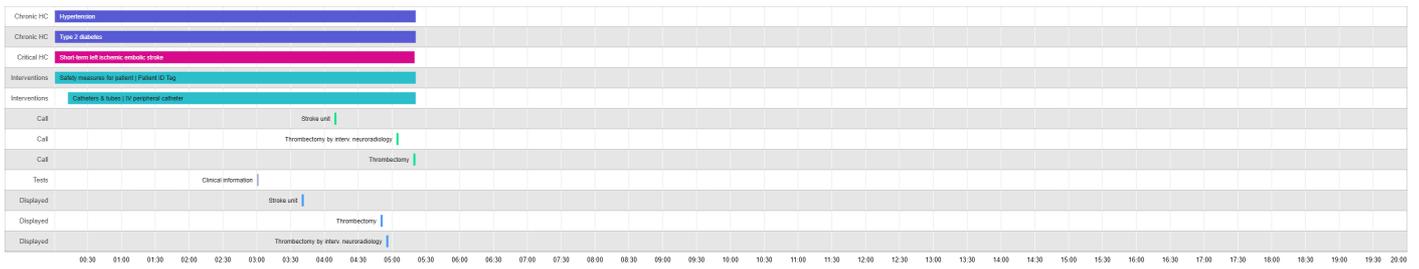
Baseline

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)

Head trauma

Brain abscess

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

Cerebral perfusion CT question:

Question

Are there any contraindications for thrombolysis?

Correct answer

No, the patient has no contraindications to alteplase, considering the result of CT perfusion

2 Incorrect answer(s)

Yes, because the patient was last known well 6 hours ago

Yes, because the patient is taking aspirin

Cerebral angiography question:

Question

Which vascular lesion is visible?

Correct answer

Occlusion of the right M2 MCA segment

2 Incorrect answer(s)

No occlusion is visible

Occlusion of the top of the right ICA

Cerebral 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)

Moderate lesion. ASPECTS: 6

Large infarct. ASPECTS: 0

Cerebral angiography question:

Question

Does this patient have an indication for thrombectomy?

Correct answer

Yes

1 Incorrect answer(s)

No

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)

Cerebral venous thrombosis

Epileptic crisis

Arteriovenous malformation

Formative Multiple Choice

Question:

Question

Regarding the use of thrombolysis in this patient:

Correct answer

The patient had a favorable CT perfusion "with small ischemic core" and a significant mismatch ratio; therefore, thrombolysis could be used

2 Incorrect answer(s)

Considering the patient was last known well 6 hours ago, thrombolysis is formally contraindicated

Considering the patient has an indication for thrombectomy, there is no indication for

thrombolysis

**Formative Multiple Choice
Question:**

Question

Considering the patient has a stenosis greater than 70% in the right extracranial internal carotid artery, what is the correct therapeutic approach?

Correct answer

Best medical treatment and endarterectomy within the first 14 days

2 Incorrect answer(s)

Best medical treatment without indication for carotid intervention

Best medical treatment and endarterectomy after 30 days

**Formative Multiple Choice
Question:**

Question

What is the minimum oxygen level accepted in the acute phase of stroke?

Correct answer

95%

2 Incorrect answer(s)

90%

80%

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

Review handoff pattern

Summarize this Body Interact scenario using a structured 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.