

# 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

# 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

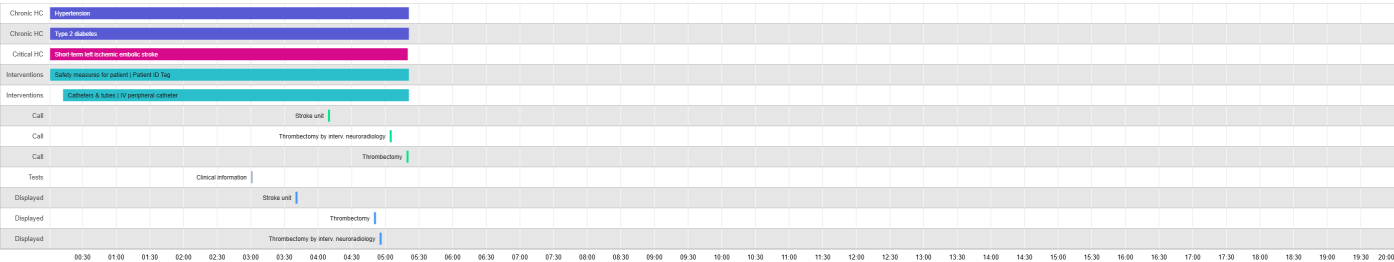
# Baseline

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.