

# SAFETY

simulation for medical practice

SIMULATION APPROACH FOR  
EDUCATION AND TRAINING  
IN EMERGENCY

## Intracranial Bleeding (ICB) Ludwig-Maximilians-University (LMU)



BODY/INTERACT™  
VIRTUAL PATIENTS



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## DOCUMENT VERSION 01

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## Scenario Description

<b>Learning Target</b>	<b>Description</b>	<b>Participants</b>
<p><b>Medical:</b></p> <ul style="list-style-type: none"><li>• Symptoms of an ICB</li><li>• Treatment of complications</li><li>• maybe neurological exam (if actor)</li></ul> <p><b>CRM:</b></p> <ul style="list-style-type: none"><li>• SA</li><li>• Leadership</li><li>• Communication</li></ul>	<p><b>Where:</b> Emergency department</p> <p><b>Frame conditions:</b> Day shift, all resources available</p>	<ul style="list-style-type: none"><li>• 2 doctors</li><li>• 1 nurse</li></ul>
<p><b>Notes:</b> can be used as a hybrid with an actor</p>		

## Scenario Briefing

### Briefing (everyone)

Mr. Jones has been brought in by the ambulance. During the morning, he had developed a headache and a left hemiparesis. Brain CT has revealed an ICB, located in the right basal ganglia. His condition is stable, he has a GCS of 13.  
He is tired, but able to communicate and oriented.  
You are waiting for a transfer to the Stroke Unit.

### Additional Briefing (individual Positions)

SP:  
You are an 75 yr old man, living alone (your wife died of cancer 10 years ago).  
Your neighbour, whom you visited in the morning, alerted the ambulance.  
You are scared and a bit disoriented.  
You are feeling very tired.

### Case Briefing (Roleplayers)

If actor – a bit disoriented, but able to communicate. Left arm and leg are weak, but not completely paralyzed.

Notes:

## Script SIM Nurse/Co-Instructor

### List of Material

- Normal ED cart
- Adult simulator or SP

### Set-Up Room

- emergency department with sim
- maybe actor

### Set-Up Simulator

- Dressed
- Iv line
- O2 mask

Notes:

## Scenario Saver

<b>How to react if the medical problem is not identified</b>	<b>How to react if the medical problem is identified too quickly</b>	<b>Other comments, material needed for savers (e.g. white coat)</b>
Patient will stabilize and exhibit shallow breathing.	Airway can be a bit tricky	

Notes:

## Scenario End Criteria

Scenario ends when...		
<ul style="list-style-type: none"><li>• Airway is secured and patient is ventilated</li></ul>		



**Notes:** Don't let the patient die!

General note – end the scenario saying:

“The patient is now going to be taken care of, thank you for solving the case”



## Simulator Set-Up, Steering

	Phase 1 Start	Phase 2 Resp. arrest	Phase 3 Intubation	Phase 4 stabilisation
Vitals	HR: 80 bpm, SR BP: 180/110 mmHg; SpO2: 97 %, Resp. Rate: 14, Temp: 36,9°C; GCS 13  Pupils: isocoric, light reaction is normal	HR: 45 /min. BP: 180/95, SpO2: decreasing over 1 min to 75% RR: apnea	HR: 70 /min. BP: 140/80 SpO2: 95% RR: ventilated PaCO2: 65 mmHg;	HR: 70 /min. BP: 140/80 SpO2: 99% RR: ventilated PaCO2: 36 mmHg;
Text for patient	Tired, knows who he is Moaning	Silence		
Other info				
Management during scenario		Change to sim if started with actor		

Notes:

## Abstract

<b>Learning Target:</b>	Relatively straightforward ICB, management of acute respirators complications
<b>Description:</b>	- 2 doctors - 1 nurse All students
<b>Participants:</b>	Mr. Jones has been brought in by the ambulance. During the morning he developed a headache and a left hemiparesis. Brain CT has revealed an ICB, located in the right basal ganglia. His condition is stable, he has a GCS of 13, He is tired, but able to communicate and oriented. You are waiting for a transfer to the Stroke Unit
<b>Case Briefing:</b>	Normal ED cart - Adult simulator OR - SP
<b>List of Material:</b>	- ED stretcher with sim - maybe actor
<b>Set-Up Room</b>	- dressed - iv line - O2 mask
<b>Set-Up Simulator:</b>	Patient will stabilize and exhibit shallow breathing
<b>Scenario Saver:</b>	Airway secured, patient ventilated
<b>Scenario End Criteria:</b>	Change to sim needed if start with actor
<b>Management during Scenario:</b>	Relatively straightforward ICB, management of acute respirators complications
<b>Other:</b>	