

SAFETY

simulation for medical practice

SIMULATION APPROACH FOR
EDUCATION AND TRAINING
IN EMERGENCY

Abdominal Trauma University of Foggia (UniFg)



BODY INTERACT™
VIRTUAL PATIENTS



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DOCUMENT VERSION 01

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Scenario Description

Learning Target	Description	Participants
<p>Medical:</p> <ul style="list-style-type: none">• Assessment and ABCDE• Identify abdominal trauma• Treatment according to local protocol. Protocol (if available) should be attached to script <p>CRM:</p> <ul style="list-style-type: none">• Closed-loop• communication• (I)SBAR	<p>Where: Emergency department</p> <p>Frame conditions: Day shift in the ED, all resources available</p>	<ul style="list-style-type: none">• ED physician• ED nurses (1-2)• Surgeon• Radiologist <p>If handover, one or better two members from ambulance team</p>
<p>Notes: Use FAST tool and/or NHISS if desired</p>		

Scenario Briefing

Briefing (everyone)	Additional Briefing (individual Positions)	Case Briefing (Roleplayers)
<p>Mrs. Jones (80 years) arrives by ambulance to the ED. (Name and gender adaptable to local circumstances!)</p> <p>She has type 2 diabetes mellitus being treated with oral hypoglycemic agents and she has arterial hypertension in good compensation.</p> <p>Early in a hot summer morning, she was hit by a garbage truck during the reversing maneuver.</p> <p>She is conscious and collaborating, but feels pain in her abdomen.</p> <p>The truck driver called the dispatch center for emergency help.</p> <p><u>Ambulance report:</u></p> <ul style="list-style-type: none"> - Female 80 years - History of diabetes mellitus and hypertension. - Road polytrauma at 9.30 - Conscious and collaborating - abdominal pain <p><u>Vital signs reported (if handover):</u></p> <ul style="list-style-type: none"> - RR 30/min - Sat 93% in O₂ 3lt/min - NIV BP 100/60 mmHg - HR 110r <p>Tp 35.6</p>	<p><i>As SP scenario, familiarisation and safety rules for SP need to be established before start!</i></p> <p><u>SP:</u> You are Mrs. Jones, 80yr old. You have chronic diabetes and take pills for it. You were taking your garbage out, saw the truck but it suddenly hit you → you don't remember more, just the friendly garbage man assisting you. You are grateful for the help, but pretty scared and a bit disoriented. You feel abdominal pain and shortness of breath</p>	<p><u>Others:</u> You are on duty in the ED, receiving the patient from the ambulance. See Ambulance report. You have access to the resources usually available in your ED</p>

Notes:

Script SIM Nurse/Co-Instructor

List of Material

- Vital Sign Monitor
- (ECG, Resp. rate, Oxygen saturation, NIV BP)
- Thermometer
- FAST algorithm/NIHSS form
- IV access
- Saline
- EAB and blood and coagulation test tubes
- requests for plasma and red blood cells
- fibrinogen
- tranexamic acid
- FFP

Set-Up Room

- ED acute bed with
- Vital Signs monitor
- Phone available

Set-Up Simulator

- Standardized patient (trained person to managing polytrauma)

Description of history and status in briefing.

Notes:

Scenario Saver

How to react if the medical problem is not identified

The blood pressure and the saturation level drop;
the respiratory and heart rate increase – see stage “deterioration”
The patient quickly loses consciousness.

An experienced surgeon on call arrives in the ED and ask for status.
He/she suggests the patient is referred for a FAST ultrasound.

How to react if the medical problem is identified too quickly

No problem. The learning goal is to communicate and act according to the protocol.

Possible extra challenge – patient becomes more disoriented, starts wanting to go home.

Possible CRM challenges:
not all team members are listening, information is distributed through handover

Other comments, material needed for savers (e.g. white coat)

- FAST ultrasound

Notes:

Scenario End Criteria

Scenario ends when...		
The ED physician or the surgeon will refer the patient to FAST ultrasound		

Notes: 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 Deterioration (2 min if no action)	Phase 3 Stabilization	
Vitals	HR: 130 bpm, SR BP: 80/40 mmHg; SpO2: 98 %, (3lt O2) Resp. Rate: 30, Temp: 35,9°C; GCS 15	HR: 160 /min. BP: 65/35, SpO2: decreasing over 2 min to 75% RR: 40	HR: 100 /min. BP: 100/70 SpO2: 95% RR: 22	
Text for patient	abdominal pain	Silence, loss of consciousness		
Other info				
Management during scenario				

Notes:

Abstract

Learning Target:	Quick look, ABCDE, identify abdominal trauma, Closed-loop communication, SBAR
Description:	An elderly female got hit by a garbage truck and she feels abdominal pain
Participants:	SP, ED physician, 2 nurses, surgeon (or team according to local Protocol).
Case Briefing:	
List of Material:	ED bed, Vital Signs Monitor, IV access, relevant medication
Set-Up Room	ED room
Set-Up Simulator:	SP
Scenario Saver:	The patient loses consciousness if abdominal trauma is not identified/suspected and acted upon
Scenario End Criteria:	When the patient is referred to a FAST ultrasound
Management during Scenario:	
Other:	