SAFETY

simulation for medical practice

SIMULATION APPROACH FOR EDUCATION AND TRAINING IN EMERGENCY

Thermal Injury SPECIAL

Ludwig-Maximilians-University (LMU)

BODY INTERACT™
VIRTUAL PATIENTS

AUTHORS

Florian Hoffmann

Philipp Fischer

Summary

Scenario Description

Learning Target

Medical:
- Management of the burn patient

CRM:
- Leadership
- Decision Making
- Communication
- SA
- Resource management in case of scarcity

Description

Where:
Emergency department

Frame conditions:
Day shift in the ED, all resources available

Participants

Students

Who:
1-2 doctors
1-2 nurses

Notes: Actor can be accompanying person (friend). Also burnt, reveals it later

Scenario is meant to deal with scarcity of resources – as the second patient reveals himself, another doctor or nurse is not available, the team needs to split

Scenario Briefing

Briefing (everyone)	Additional Briefing (individual Positions)	Case Briefing (Roleplayers)
50-year-old male, tried to light a barbecue with petrol, burned his arms, chest, and face. Girlfriend came with him, is available for inquiry. Both slightly drunk	none	If actor – be helpful, yet a bit nervous. On inquiry show your palms with burns When scenario is ongoing (or on signal from instructors) reveal you are in pain, both your palms with burns – try to bind as many resources as possible without being obnoxious

Notes:

Script SIM Nurse/Co-Instructor

List of Material	Set-Up Room	Set-Up Simulator
• normal ED cart • make sure io is available • adult patient simulator AND (optional)SP	• ED stretcher with sim	Undressed, burn marks on chest, arms jaw, no IV

Notes:

Scenario Saver

How to react if the medical problem is not identified	How to react if the medical problem is identified too quickly	Other comments, material needed for savers (e.g. white coat)
Problem is obvious. If difficulty in taking decisions, help from senior This help could contain: • idea for io • support for analgesia If resource scarcity is severe and overwhelming, maybe send in some colleagues	Respiratory distress Patient can be agitated, language barrier	

Notes:

Scenario End Criteria

Scenario ends when…		
• io access is established • analgesia • transfer to ICU • identification and treatment of second victim		

Notes: Main debriefing theme, along treatment of burns – resource scarcity, sudden appearance of another patient.
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	Phase 3 Analgesia established	
Vitals	HR: 140 /min. BP: 130/ 85 mmHg SpO2: 90%, RR: 28 /min GCS: 15	HR: 150 /min. BP: 180/95, SpO2: if given oxygen raising to 94% RR: 28 /min GCS: 15	HR: 110 /min. BP: 140/80 SpO2: 95% RR: 28 /min GCS: 15	
Text for patient	Pain			
Text for actor	Silent, astonished	Manifesting pain, asking for help	If cared for, calm. If not, continue asking for help	
Other info	Girlfriend is helpful, also has some pain, but ignoring it			
Management during scenario	Pain should be bearable although hardly. Keep stress level manageable			

Notes:

Abstract

Learning Target:	Management of thermal injury
Description:	Burn patient, household accident
Participants:	Students. Roles: 1-2 doctors, 1-2 nurses
Case Briefing:	50-year-old male, tried to light a barbecue with petrol, burned his arms, chest, and face.
List of Material:	Normal ED cart - adult patient simulator AND (optional) - SP
Set-Up Room	ED strectcher with Sim, make sure io is available
Set-Up Simulator:	- undressed, burn marks on chest, arms, jaw - no iv - actor with burn marks on palms
Scenario Saver:	Senior colleague
Scenario End Criteria:	Analgesia, vascular access, follow-up plan Second patient is cared for
Management during Scenario:	Pain should be bearable although hardly. Keep stress level manageable Actor- ask insistently for help if not cared for
Other:	Keep contact with actor

Notes: Main focus of this version of the scenario is resource scarcity