S05en	605en Benedikt Breznak (42 years old) - Pneumothorax				SIMU
Mr. Brezr	ak s a 42-year-old man was taken to emergency roon	n after he	students: 3x		JIMU
hit a tree while riding a bicycle. At the time of the accident he was				MED	
wearing a helmet, which wasn't damaged. He remembers the accident					
and was not unconscious. He is being treated for hypertension, taking					notes
	n neo 5 mg, no allergies. On the first reading full-bod	-	1		
serial fracture of 4 ribs on the left, fracture of the humerus and femur on the left side dominates. He was indicated for urgent surgical					
intervention. The senior anesthesiologist sends you to the operating					
room with this patient. The senior anesthesiologist is available by phone					
if necesar	y. The patient has already been examined, 2 minutes				
preoxygenation is being provided. Antibiotic prophylaxis was					
Laboratory: biochemistry and coagulation - no abnormality, blood count: Hb 96 g/L, PLT 146					
Initial	clinical status (simulation)	Monit	or setup		
Α	airways clear and safe	AB			
В	cleard breathing sounds, weaker sound on the	-	B: RR 25 /min, SpO ₂ 93%		
	left chest apically				
С	cardio-vascular stabil, regular heart action, no	С	C : HR 92 /min (sinus r.), BP 107 / 55, EtCO2 35 mmHg		
	murmur, CRT 3 s				
D	GCS 15, AVPU- A, pupils 2+/2+				
E	Stiffneck colar, vacuum splints on left		F. Dady tamparatura 2F 9 °C		
	humerus and left femur		E: Body temperature 35,8 °C		
Expected actions (in bullet points, for the videobriefing's checklist):					
1. RSI (rapid sequence intubation) with MILS (manual in-line stabilization)					
2. Examination acording ABCDE algorithm					
3. Support of circulation support, volumotherapy					
4. Calling for help, delegating tasts to other team members					
5. Recognising pneumothorax, correct decompression techniques, drainage					
Notes on the simulation process (simulation development):					
Once the arteficial ventilation provided:					
HR 163/min, BP 64/32, SpO2 87%, EtCO2 25mmHG (all in 1 minut). Silent breathing above left chest.					
1* ABC(DE) check OK, calling for help and early needle decompression: BP 82/51, HR 107 / min (in 1 minut)					
2* ABC(DE) check OK, without calling for help -> needle decompression is incorrect -> asystole (in 1 minute)					
	ABCDE check AND/OR without pneumothorax		, ,	-	
4* In asystole: needle decompression AND 1 mg adrenalin i.v> ROSC: BP 79/42, HR98 /min, ETCO2 47 mmHg					
- III us	Stole. Recale decompression AND 1 mg durent		1036. Br 73742, 11136 / 11111, E166	72 47 mmn 16	
				ĺ	

Start of the simulation:

"The Voice of God" starts the simulation after about 5 seconds of preoxygenation

Take home message:

- 1) Dg. of tension pneumothorax is clinical chest decompression can be performed on the basis of clinical examination
- 2) Diagnosis and treatment of tachycardia and hypotension in case of a polytraumatized patient

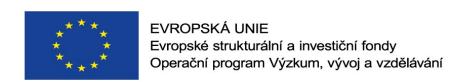
A scenario for the diagnosis and treatment of pneumothorax developed after the patient is connected to positive pressure ventilation.



EVROPSKÁ UNIE Evropské strukturální a investiční fondy Operační program Výzkum, vývoj a vzdělávání



S05en: Checklist for SIMU technician							
Simulation room + basic setting: Operating room							
	Pacient:	Simulator type:					
✓	patient simulátor:	SIMMan 3G					
	standardized patient						
	other simulator:						
	figurant SIMU:						
setting							
Patient monitor:							
A:	O2 nasal canule O2 mask O2 mask with reservoir hi-flow mask						
	airway LM OTI	☐ TSC ☐ NIV vel.:					
B:	02 I/min						
	parameters of ventilation:						
C:	✓ PVC 1. ☐ PVC 2. ☐ CVC ☐ Dialis	ys can. ART urin. cat. jiné:					
		Camouflage:					
	inf	fusion of crystalloid					
	vakuum splints on	left arm and left leg, stiffneck colar					
	documentation	claricitation					
	laboratory results in Simstation						
	laboratory results on the scene						
	multimedia in SimStation						
	other documentation on the scene						
within reach, ready beyond the basic setting							
	anesthesia trolley						
	defibrilator						
	needle for chest decompression						
	chest drainage set						
	ultrasound probe						
	Date of revision: 24.1.2024						





S05en - Participant 1 - Anesthesiologist

Mr. Breznak is a 42-year-old man was taken to emergency room after he hit a tree while riding a bicycle. At the time of the accident he was wearing a helmet, which wasn't damaged. He remembers the accident and was not unconscious. He is being treated for hypertension, taking Prestarium neo 5 mg, no allergies. On the first reading full-body CT scan, serial fracture of 4 ribs on the left, fracture of the humerus and femur on the left side dominates. He was indicated for urgent surgical intervention. The senior anesthesiologist sends you to the operating room with this patient. The senior anesthesiologist is available by phone if necesary. The patient has already been examined, 2 minutes of preoxygenation is being provided. Antibiotic prophylaxis was administered 30 min. ago at A&E. Let's get straight to the introduction to general anesthesia.

Laboratory: biochemistry and coagulation normal, blood count: Hb 96 g/l, PLT 146*10⁹/l

S05en - Participant 2 - Senior Anesthesiologist

You are a doctor with specialized competence in the field of AIM, today you are supervising a younger colleague - you have send him to the trauma room with Mr. Breznak.

Mr. Breznak is a 42-year-old man was taken to emergency room after he hit a tree while riding a bicycle. At the time of the accident he was wearing a helmet, which wasn't damaged. He remembers the accident and was not unconscious. He is being treated for hypertension, taking Prestarium neo 5 mg, no allergies. On the first reading full-body CT scan, serial fracture of 4 ribs on the left, fracture of the humerus and femur on the left side dominates. He was indicated for urgent surgical intervention

S05en - Participant 3 - Anesthesiology Nurse

At the tramatollogy operationg room you have a patient with polytrauma. Mr. Breznak is a 42-year-old man was taken to emergency room after he hit a tree while riding a bicycle. At the time of the accident he was wearing a helmet, which wasn't damaged. He remembers the accident and was not unconscious. He is being treated for hypertension, taking Prestarium neo 5 mg, no allergies. On the first reading full-body CT scan, serial fracture of 4 ribs on the left, fracture of the humerus and femur on the left side dominates. He was indicated for urgent surgical intervention.

You have an headset in your ear that the lector can use to talk to you. Follow the instructions.