



**VŠEOBECNÁ FAKULTNÍ
NEMOCNICE V PRAZE**



**1. LÉKAŘSKÁ
FAKULTA**
Univerzita Karlova

Intenzivistická abeceda **ABCD...E**

Dominik Hladík
KARIM VFN
ZZS HMP



sekce mladých
anesteziologů
a intenzivistů



Aáááá



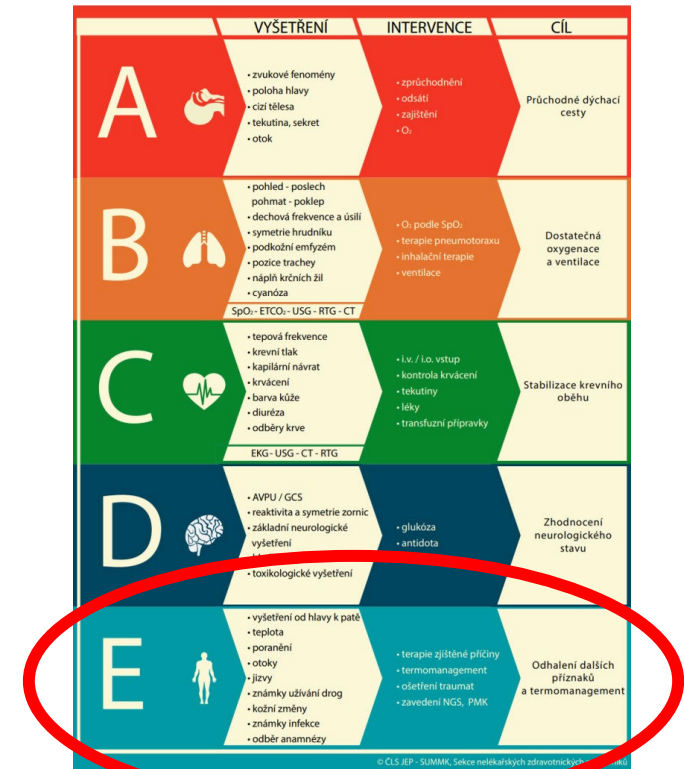
A B C D
H I J K
L O P Q
U V W

Zlotogora-
Zilberman-
Tenenbaumův
syndrom
??





E = Exposure



ABCDE cognitive aid tool in patient assessment – development and validation in a multicenter pilot simulation study

David Peran , Jiri Kodet, Jaroslav Pekara, Lucie Mala, Anatolij Truhlar, Patrik Christian Cmorej, Kasper Glerup Lauridsen, Ferenc Sari & Roman Sykora

BMC Emergency Medicine 20, Article number: 95 (2020) | [Cite this article](#)

The ABCDE Approach

Authors Resuscitation Council UK, published October 2015, reviewed May 2021, updated July 2024

Initial assessment and treatment with the Airway, Breathing, Circulation, Disability, Exposure (ABCDE) approach

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Abstract: The Airway, Breathing, Circulation, Disability, Exposure (ABCDE) approach is applicable in all clinical emergencies for immediate assessment and treatment. The approach is widely accepted by experts in emergency medicine and likely improves outcomes by helping health care professionals focusing on the most life-threatening clinical problems. In an acute setting, high-quality ABCDE skills among all treating team members can save valuable time and improve team performance. Dissemination of knowledge and skills related to the ABCDE approach are therefore needed. This paper offers a practical “how-to” description of the ABCDE approach.

Keywords: emergency medicine, general medicine, internal medicine, multiple trauma, multiple injury

Introduction

The Airway, Breathing, Circulation, Disability, Exposure (ABCDE) approach is a



Víkendová služba ICU... Sobota 4:00... Příjem!



Víkendová služba...

- **A – Age:** muž, 25 let
- **T – Time:** ZZS volána ve 3:00
- **M – Mechanism:** v.s. intoxikace neznámou noxou, od PČR informace o napadení pacienta
- **I – Injury/Injuries:** bez známek vnějšího traumatu, v.s. intoxikace, progresse poruchy vědomí
- **S – Signs:** GCS 5...3, NIBP 100/50 mmHg, HR 95 t/min, SpO2 98%
- **T – Therapy:** OTI + UPV, vasopresory, volumosubstituce

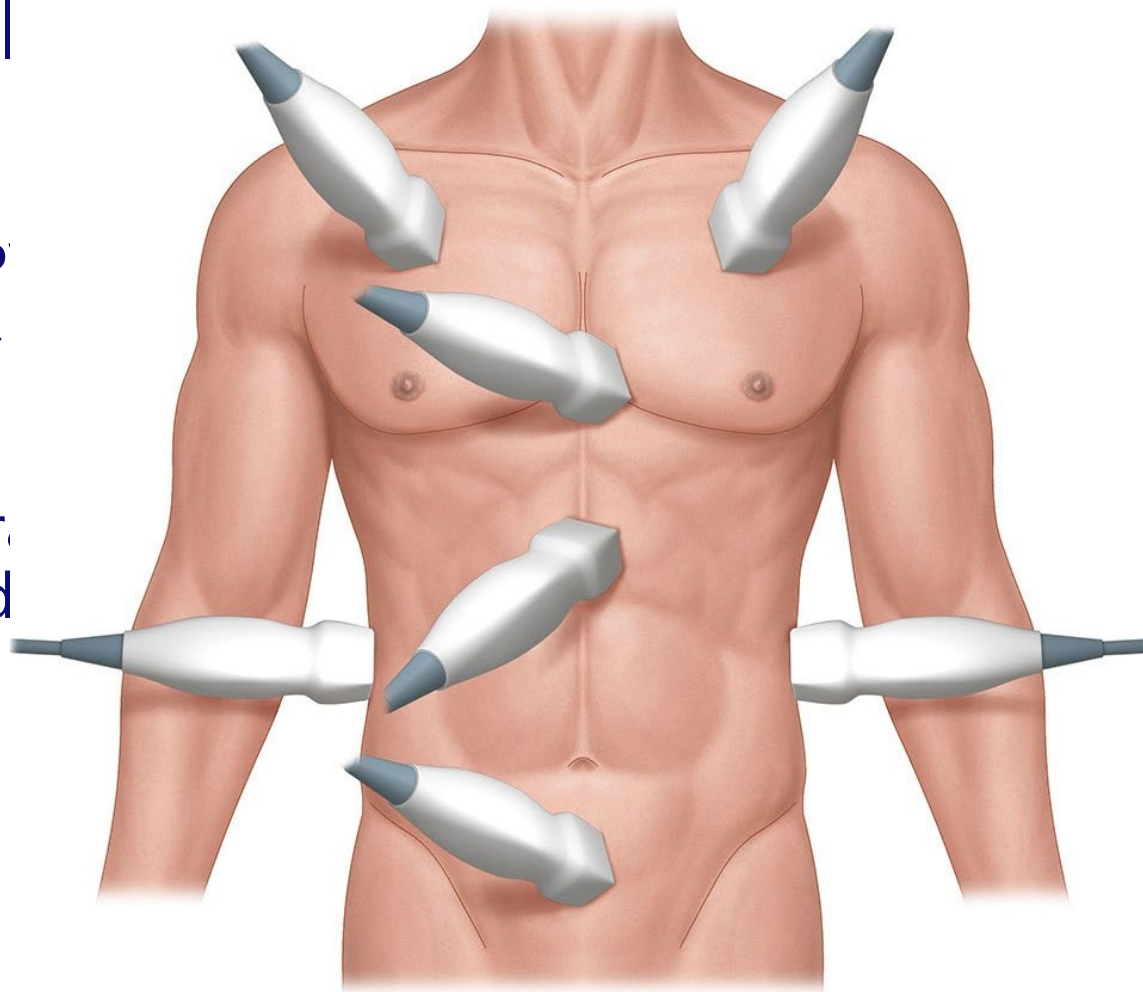


A.T.M.I.S.T. Handover Tool

AGE	Age and sex of casualty (demographic).	
TIME	Estimated time of arrival and the time of incident.	
M.o.i.	Mechanism of injury. This should include: <ul style="list-style-type: none"> • The gross mechanism of injury (e.g. motor vehicle crash or stab wound to the chest) and, • Details of other factors known to be associated with major injuries e.g. entrapment, vehicle rollover, occupant ejected from vehicle. 	
Injuries	Seen or suspected.	
Signs	<ul style="list-style-type: none"> • Vital signs including heart rate, blood pressure, respiratory rate, oxygen saturation and Glasgow Coma Score. • An indication as to whether the physiological state of the patient has improved or deteriorated since first seen. 	
Treatment	Treatment given.	

Příjem na I

- **ABCD** – OTI + UP
SpO₂ 98%, CRT >
- **E** - bez známek tr.
PČR údaj o napad



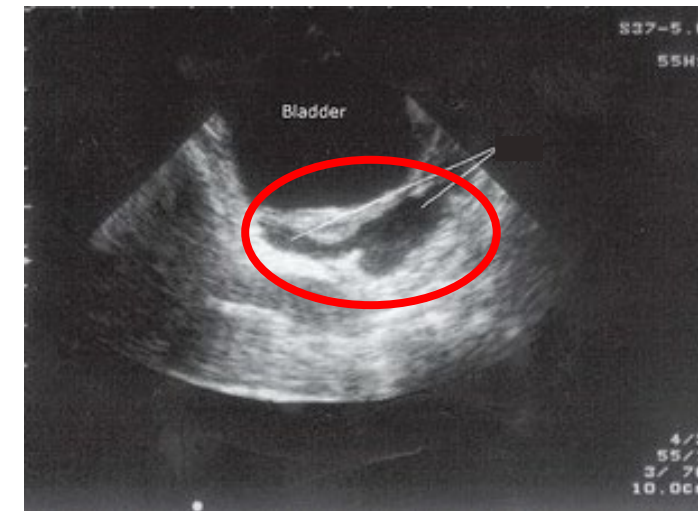
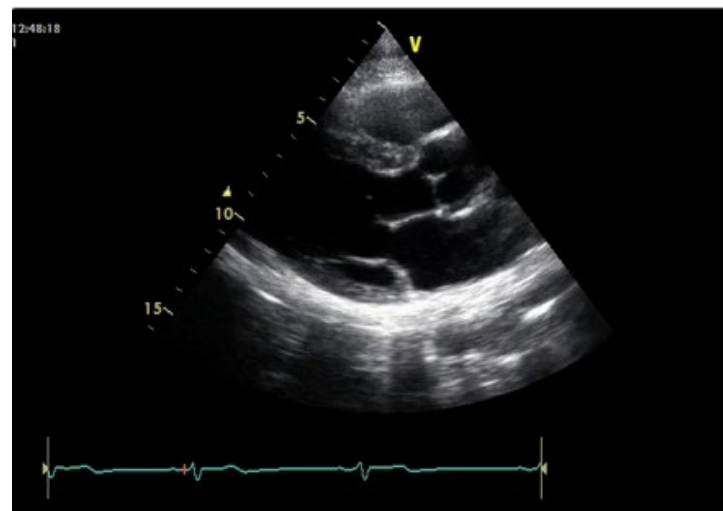
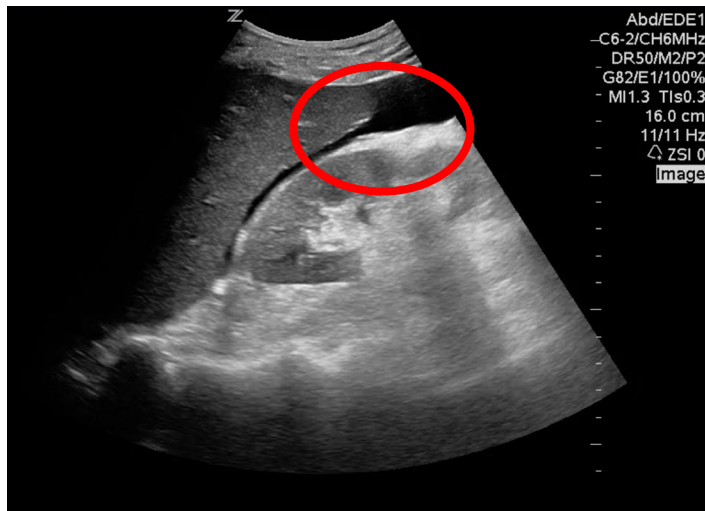
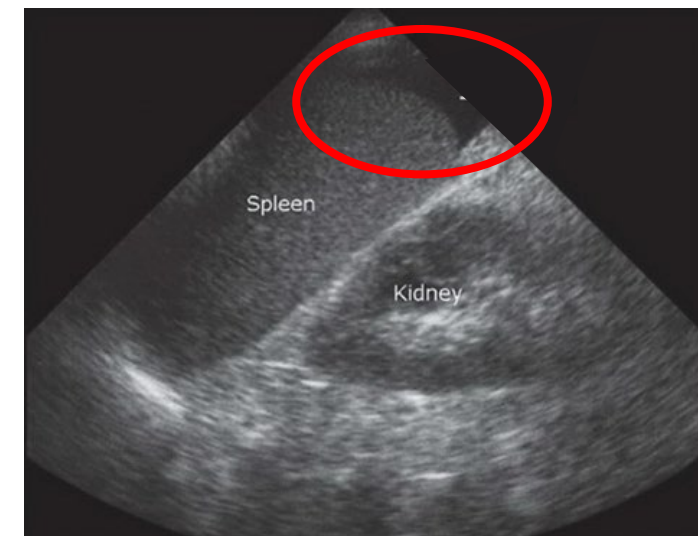
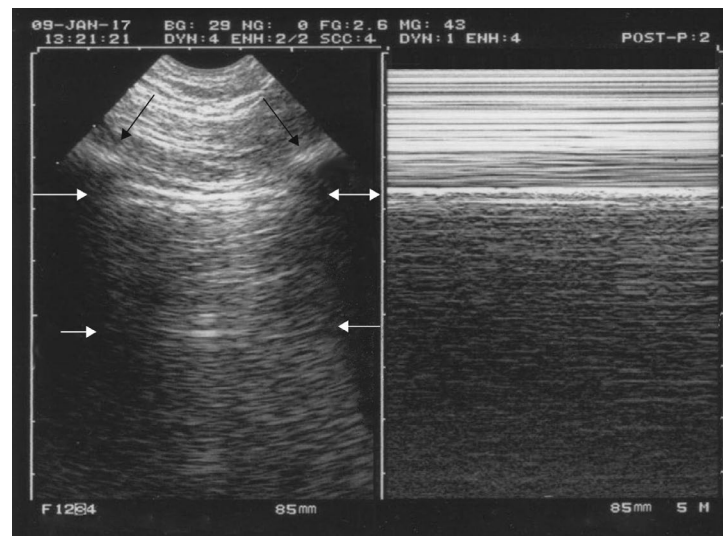
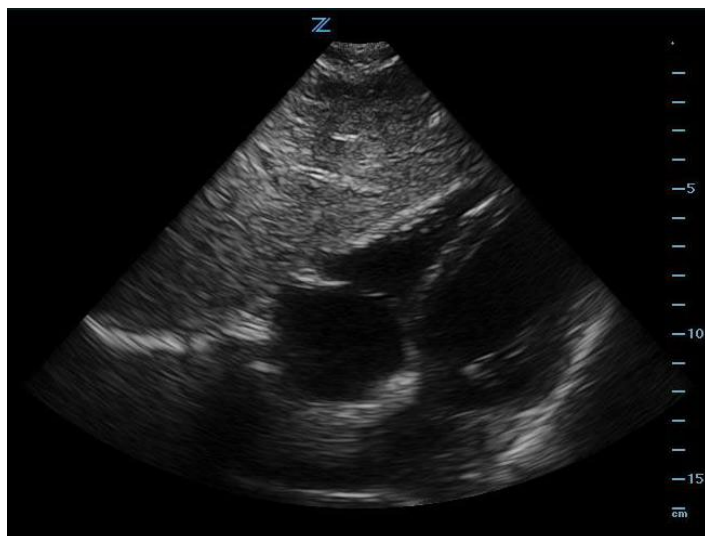
R 100 t/min,
ické vyš. v normě

;. intoxikace, dle

USG - EFAST

EFAST

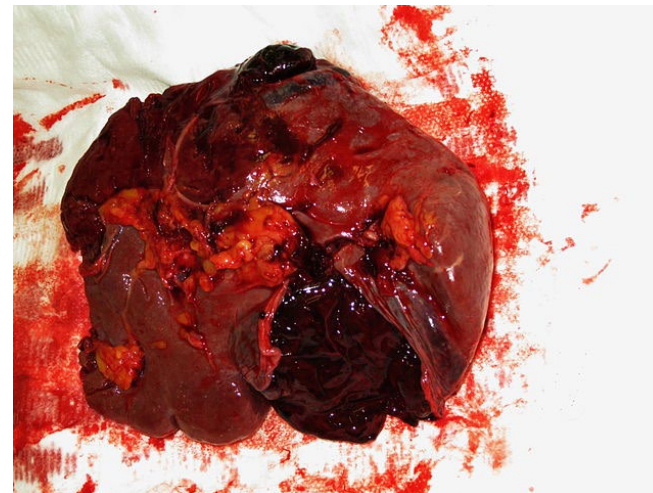
Extended Focused Assessment with Sonography in Trauma





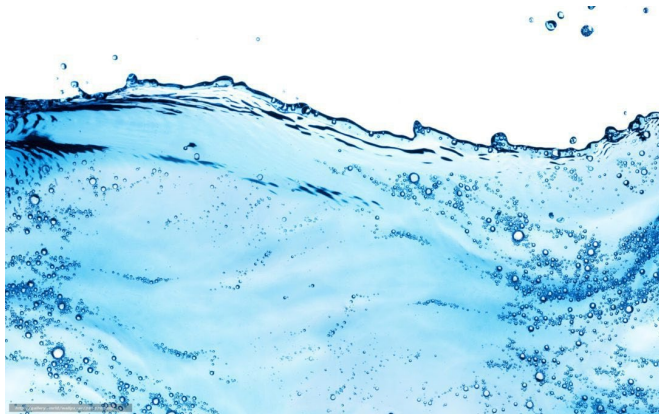
Hypovolemický šok

- **ABR:** ...Hb 63 g/l, laktát 5,5 mmol/l...
- Tekutinová resuscitace (transf. přípravky), koag. faktory, vasopresory...
- Konzultován chirurg → indikováno celotělové CT → traumatická ruptura sleziny → ad OS



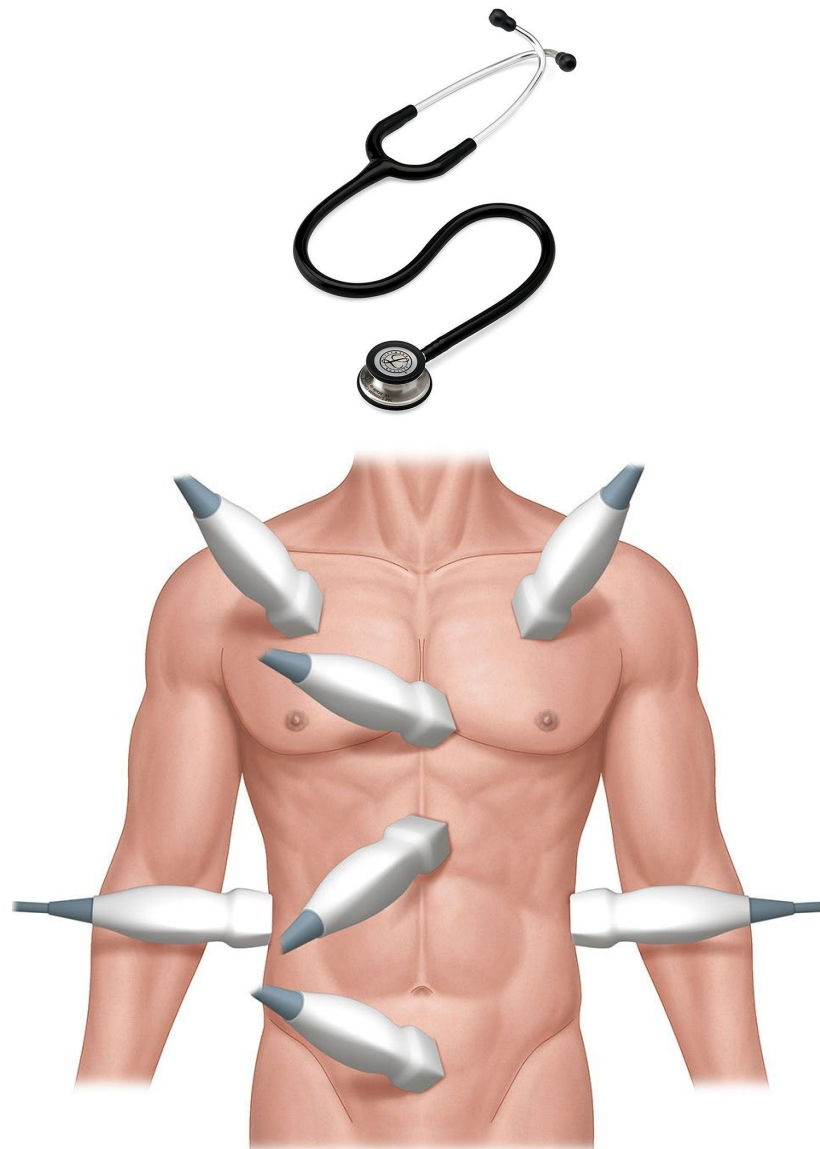


EFAST



Volná tekutina v...

- Dutině břišní
- Pleurální dutině
- Perikardu



VZDUCH

Pneumothorax



FAST – volná tekutina v DB

Odhad objemu volné tekutiny v DB na základě USG

- Nejcitlivější pravý horní kvadrant (RUQ)
- Detekce volné tekutiny v DB při objemu > 500-700ml



ARTICLE: PRESENTED AT THE 28TH ANNUAL MEETING OF THE WESTERN TRAUMA ASSOCIATION, FEBRUARY 22-28, 1998, LAKE LOUISE, ALBERTA, CANADA

Early Detection of Hemoperitoneum by Ultrasound Examination of the Right Upper Quadrant A Multicenter Study

Rozycki, Grace S. MD; Ochsner, M. Gage MD; Feliciano, David V. MD; Thomas, Bruce DO; Boulanger, Bernard R. MD; Davis, Frank E. MD; Falcone, Robert E. MD; Schmidt, Judith A. DNSc

[West J Emerg Med.](#) 2017 Feb; 18(2): 270–280.

Published online 2017 Jan 19. doi: [10.5811/westjem.2016.11.30435](https://doi.org/10.5811/westjem.2016.11.30435)

PMCID: PMC5305137

PMID: [28210364](https://pubmed.ncbi.nlm.nih.gov/28210364/)

Caudal Edge of the Liver in the Right Upper Quadrant (RUQ) View Is the Most Sensitive Area for Free Fluid on the FAST Exam

[Viveta Lobo](#), MD,* [Michelle Hunter-Behrend](#), MD,* [Erin Cullnan](#), MD,* [Rebecca Higbee](#), MD,* [Caleb Phillips](#), MS, PhD,* [Sarah Williams](#), MD,* [Philips Perera](#), MD,* and [Laleh Gharahbaghian](#), MD*

FAST – fluidothorax

Odhad objemu fluidothoraxu na základě pleurální separace, měřeno USG

- Supinace + 15 stupňů elevace trupu
- **$V \text{ (ml)} = 20 \times \text{separace (mm)}$**

› Intensive Care Med. 2006 Feb;32(2):318. doi: 10.1007/s00134-005-0024-2. Epub 2006 Jan 24.

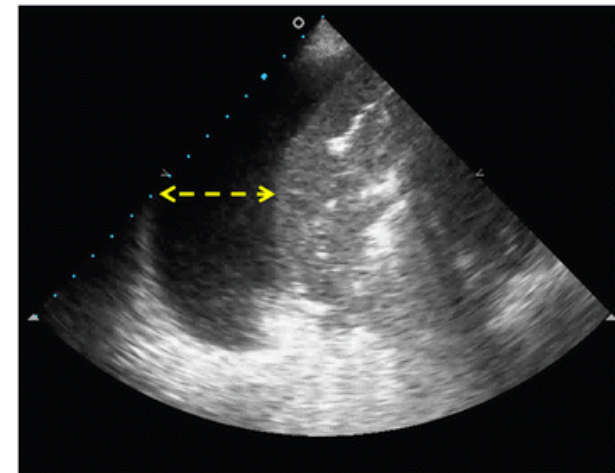
Ultrasound estimation of volume of pleural fluid in mechanically ventilated patients

M Balik ^{1 2}, P Plasil ³, P Waldauf ³, J Pazout ³, M Fric ³, M Otahal ³, J Pachl ³

Affiliations + expand

PMID: 16432674 DOI: 10.1007/s00134-005-0024-2

Measurements and results: 92 effusions were evaluated and drained; 11 (12%) were excluded for incomplete aspiration. Success rate of obtaining fluid under ultrasound guidance was 100%; the incidence of pneumothorax or bleeding was zero. Mean Sep was 35+/-13 mm. Mean V was 658+/-320 ml. Significant positive correlation between both Sep and V was found: $r=0.72$; $r(2)=0.52$; $p<0.001$. The amount of pleural fluid volume can be estimated with the simplified formula: $V \text{ (ml)}=20 \times \text{Sep (mm)}$. Mean prediction error of V using Sep was 158.4+/-160.6 ml.





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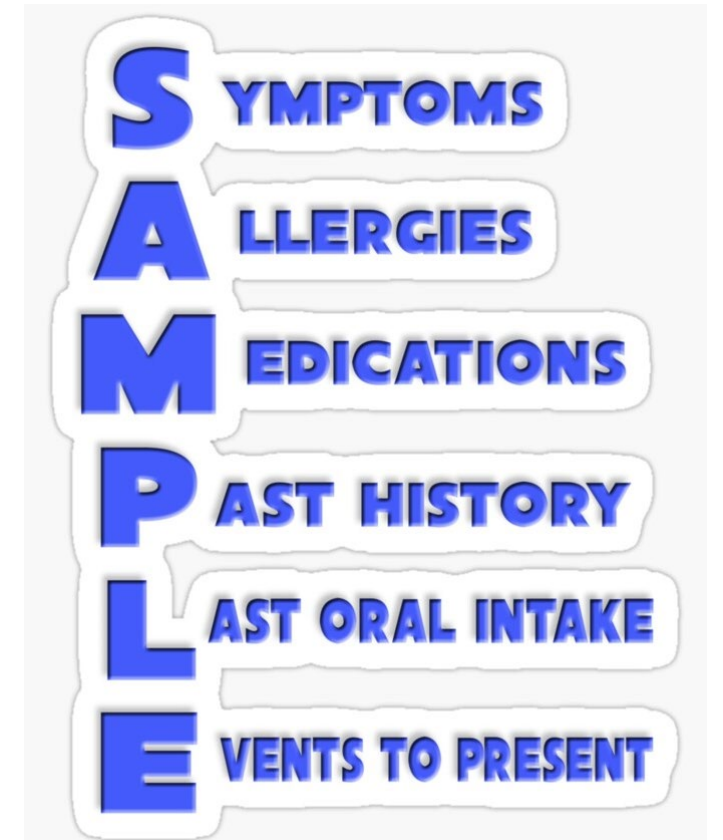
ICU služba... Neděle 14:00... Příjem!



„Interní polytrauma“

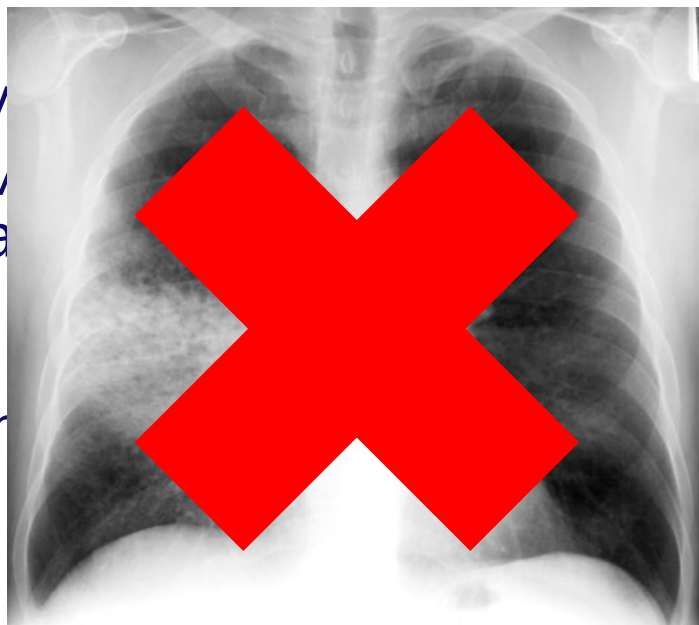
Muž, 78 let, via UP pro v.s. septický stav

- **S – Symptoms:** zmatenost, nechutenství, dušnost, hypotenze, tachykardie, febrílie
- **A – Allergies:** PNC
- **M – Medications:** Prestarium, Atorvastatin, Anopyrin, Metformin, Eliquis
- **P – Past history:** HTN, DM 2 na PAD, DLP, ICHS, morbidní obezita, stomie (st.p. kolorekt. Ca), PMK, BHP
- **L – Last oral intake:** cca 48h
- **E – Events to present:** cca 2 dny trvající progrese poruchy vědomí, nově dušnost, nauzea, nechutenství



„Interní polytrauma“

ABCD – v
NIBP 100,
bez latera



a, 4 l/min C
ABR v nor



tachypnoe 22 d/min,
(mol/l), neurologicky

E – bez zr

38,7°C, kor

č, bez otoku DKK...

Diff. Dg. ???

Zdroj infekce ???



„Interní polytrauma“

E = Od hlavy až k patě!

Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021

11. For adults with suspected sepsis or septic shock but unconfirmed infection, we recommend continuously re-evaluating and searching for alternative diagnoses and discontinuing empiric antimicrobials if an alternative cause of illness is demonstrated or strongly suspected.

Best practice statement

13. For adults with possible sepsis without shock, we recommend rapid assessment of the likelihood of infectious versus noninfectious causes of acute illness.

Best practice statement

14. For adults with possible sepsis without shock, we suggest a time-limited course of rapid investigation and if concern for infection persists, the administration of antimicrobials within 3 hr from the time when sepsis was first recognized.

Weak , very low quality of evidence



„Interní polytrauma“

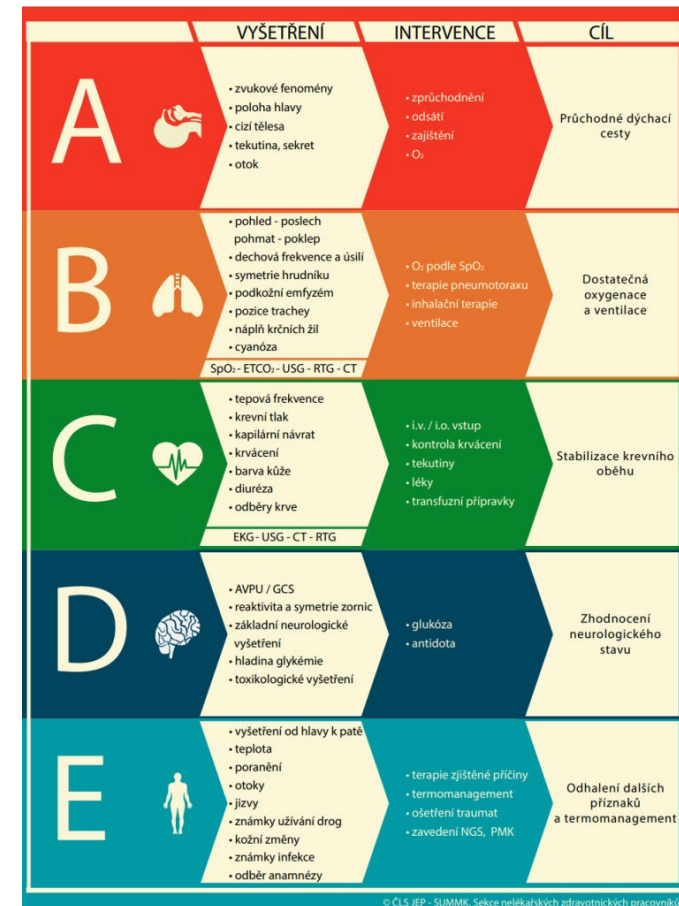
- Odběr **MKB** materiálu vstupně, včetně **stěru z defektu**
- Zahájena **empirická ATB** terapie
- Voláno **chirurgické konzilium** – nekrektomie, evakuace hnisu (**ad MKB**)
- Symptomatická terapie, dále **deescalace** ATB terapie dle MKB výsledků



„Ubi pus, ibi evacuo“ – „Kde je hnis, tam ho vypust“

Shrnutí

- **ABCDE** – „kamarád do nepohody“
- **Pomůcky k anamnéze – ATMIST, SAMPLE**
- **Exposure** skutečně do hloubky... **EFAST**
 - Fluidothorax odhad $V(\text{ml}) = \text{mm}(\text{separace}) \times 20$
 - Volná tekutina v DB – RUQ, min. 500-700ml volné tekutiny
- **Exposure** – od hlavy až k patě
 - Zdroj infekce, skryté trauma, vpichy, jizvy, otoky...
- **Teplota a termomanagement**





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Děkuji za pozornost



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a intenzivistů