CAB CHOD KOL AN VAN ROMPAY, MD, EX-EMERGENCY MEDICINE



31/05/2024 Besedim

We should all be war-doctors



Should we all be war-doctors?

Topics



Lessons learned from Ukraine

What are the tasks of a war-doctor?

What's a war-doctor?

Some geopolitics

The whole of society approach





A war-doctor?







Unimog ambulance Kosovo 2001





Pandur Ambulance Afghanistan 2003





Dingo, Kunduz 2011





Agusta A-109





Blackhawk Afghanistan 2003





Kabul, Afghanistan, 2003





Doctors round in Kabul's Mil Hospital





The operating theatre in Kabul's mil hospital 2003





Kabul 2003





What are the tasks of a wardoctor?

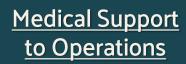
Tasks for Belgian defense in general

	National Non-expeditionary	Expeditionary	
	Contribution to support homeland security	Protection of BEL citizens worldwide	
	Host nation support in case of calamities	NATO Collective defense and collective security	
/			



16

I Tasks for the medical service







Evacuation capability





Field hygiene support

Readiness of the Medical Forces





Medical units & training center





Simulation center

<u>Medical</u> <u>Readiness of the</u> <u>Forces</u>



Military health care



Specialized military medicine





Territorial Medical Support



Health Care Personel (Sit May2024)

			7
Surgeons	06	Psychologists	13
Anesthesiologists	06	Veterinarians	15
Emergency physicians	01 (6y), 22(3y)	Pharmacists	31
General physicians	17	Physiotherapists	31
Public Health Officers	5	Nurses	153
Dentists	4	Medics	408
			$\left[\right]$





" Ceci n'est plus un hôpital"





Some geopolitics From Cold war over War on Terror to NATO Art 3 and 5



Cold War- era

- → Military troops and their families in Germany
- → Military physicians: active + conscripts
 - → General physicians in "medical houses"
 - Specialists at the Military hospitals in Cologn and Brussels
- ➔ Full scale Field Tactical Ex (FTX) for a few weeks a year
- ➔ Pathology: aspecific
- → Risk to HCP: low





1 10

DEFENCE



Conflict in former Yougoslavia

- BEL troops participating in NATO peace-enforcing and peace-keeping missions
- → Types of Doctors
 - → GP's with diploma in emergency medicine (Brevet Acute Geneeskunde, Brevet de Médecine Aigue)
 - \rightarrow Specialists at the MHQA in Brussels

→ Pathology: Very few injured (Traffic incidents)
 → Risk to HCP: Low _Medium







War on terror

- BEL troops participating in NATO peace-enforcing missions
- ➔ No more GP's but strong focus on emergency medicine trained doctors at R1
- ➔ Mil Trauma surgeons in international teams at Hosp level (R2)
- → Pathology: IED-victims, GSW
 - → Tactical combat casualty care (TC3)
 - Damage controle resuscitation and surgery (DCS)
- Risk to HCP: High, Non- respect of Geneva Conventions -> Medics as secondary target for IED

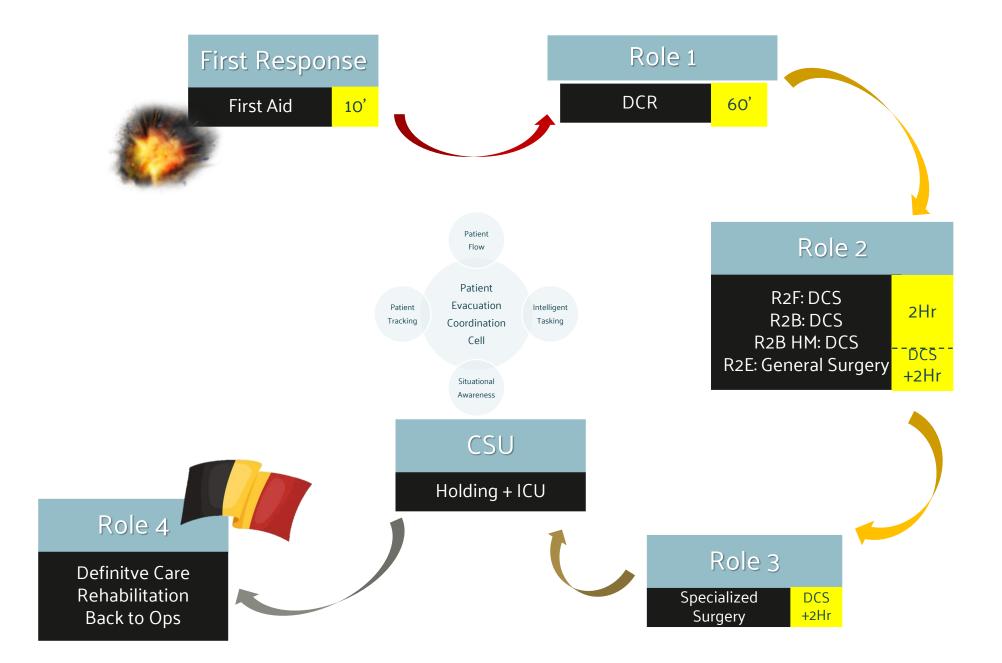






Child soldiers







To NATO Art 3 and 5

- \rightarrow UKR, at the border of Europe
- → Only active mil physicians in most NATO countries
- → "Walker principle": in peacetime Mil don't get budgets
 - → bad pay many left
 - → Not only in BEL but across NATO
- → Civ-Mil cooperation is a necessity!
- ➔ Pathology differs from WOT
 - → Heavy weapons heavy trauma
 - → CBRN
- → Risk to HCP: Higher





In comparison, in the GWOT, the insurgent arsenal had a reach of approximately 20 km. When applied to possible future conflicts with NPAs, it is likely that the enemy's arsenal would be able to reach hundreds of kilometers from the front line. For example, the Chinese CJ-10 cruise missile is capable of carrying a 1,000-lb warhead more than 1,500 km.²⁰ If an operation is to be performed in

What does this shift mean from a medical point

of view?



CRO vs. Art V: differences relevant to Strat AE

<u>CRO</u>	<u>Art V</u>	
✓ Low Battle Casualty Rates	✓ High Battle Casualty Rates	
✓ Air superiority	✓ Air threat	
✓ Medical capabilities	✓ Medical capabilities and capacities	
✓ Out of area operations	✓ NATO territory = theatre	



CRO = Crisis Response Operations Strat AE = Strategic aeromedical evacuation

What does this shift mean from medical point of

view?



ALLIED JOINT FORCE Setting the scene

CRO vs. Art V: differences relevant to Strat AE

<u>Art V</u>
✓ High Battle Casualty Rates
✓ Air threat
✓ Medical capabilities and capacities
✓ NATO territory = theatre

CRO = Crisis Response Operations Strat AE = Strategic aeromedical evacuation

ATO UNCLASSIFIED

and rockets.³ There were an estimated 7,076 US deaths and 53,337 US wounded during the course of those 20 years.⁴ Explosive mechanisms of injury made up the largest portion of combat wounds in the GWOT, accounting for approximately 79% of battlefield injuries. During nearly



What does this shift mean from medical point of

view?



 $\underset{\texttt{COMMAND BRUNSSUM}}{\texttt{Allied JOINT FORCE}} Setting the scene$

- CRO vs. Art V: differences relevant to Strat AE

Out of area operations

CRO	<u>Art V</u>
✓ Low Battle Casualty Rates	✓ High Battle Casualty Rates
✓ Air superiority	
✓ Medical capabilities	Putting Me
	from the M/

Putting Medical Boots on the Ground: Lessons from the War in Ukraine and Applications for Future Conflict with Near-Peer Adversaries

Aaron Epstein, MD, MA, COL (RET) Robert Lim, MD, FACS, FASMBS, COL Jay Johannigman, MD, USAR, MC, LTC (RET) Charles J Fox, MD, FACS, Kenji Inaba, MD, FACS, MAJ (RET) Gary A Vercruysse, MD, FACS, MG (RET) Richard W Thomas, MD, DDS, MSS, COL (RET) Matthew J Martin, MD, FACS, COL Gumeniuk Konstantyn, MD, PhD, MAJ (RET) Steven D Schwaitzberg, MD, FACS, MAMSE



Lessons learned from UKR

NATO



DEFENCE

NATO



NATO's Eastern Flank: STRONGER DEFENCE AND DETERI

40,000	TROOPS UNDER DIRECT NATO COMMAND
	CALCULATE OF DESIGNATION OF DESIGNATIONO OF D

100,000 US TROOPS DEPLOYED

130 ALLIED AIRCRAFT AT 140 ALLEED SHIPS AT SEA

- NATO tool for Casualty Estimates
- War in UKR: official battle casualties numbers are not shared/ unreliable

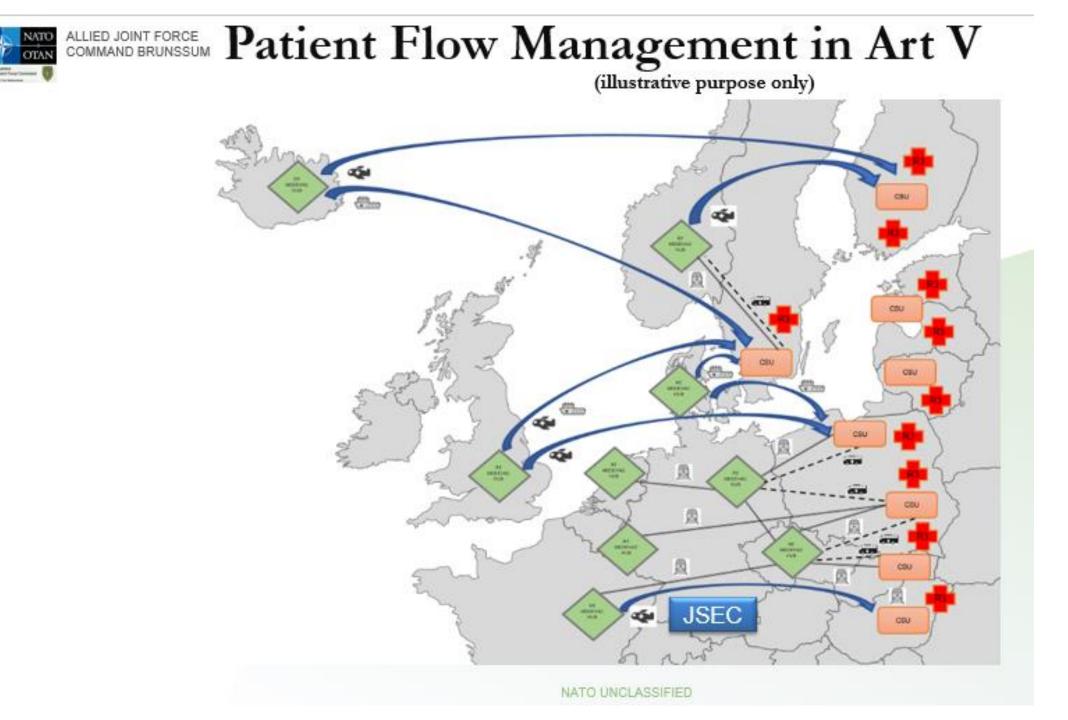
ALLIED TRODPS 2.200

10,500

37

- UKR: estimated 40 KIA and 275 WIA per day
- RUS: estimated 100 KIA and 400 WIA per day





Lessons learned from UKR



3 D Warfare – Drones + artillery -> Severe injuries, more cranial + facial trauma, more burns



More TBI



Need for neurosurgery (scarce)

Revalidation after braintrauma

2020, and 109 US soldiers suffered TBIs.²⁶ In the Ukraine conflict, concussion injuries and related complaints were noted in nearly all instances of patient encounters with opposition rocket or artillery fire, although oftentimes they were overshadowed by other wounds or injuries. We also know that if patients sustain successive concussions or TBIs, the long-lasting effects are significantly more devastating.²⁷ In a combat situation against an NPA, it is likely that TBIs will be far more prevalent than what was experienced in the GWOT. Reinforcing and burying defensive positions so that personnel are not as exposed to the blast effects may help mitigate these injuries; however, medical planning should continue to be directed at prophylactic, protective, and treatment measures to combat TBIs.



More burns

Russian use of incendiary munitions causes significant deep burn injuries, organophosphate poisoning, and other toxic effects from the vapors associated with the burning substances.¹⁵ Care of burn casualties imposes a significant logistical and medical burden because of the complexity of care and the extensive resuscitation required. This underscores the need to plan for significant thermal/burn injuries in future combat.

In Ukraine, Russian forces have used modern portable antitank guided missiles with advanced dual shaped charge or thermobaric warheads or thermobaric rocket artillery barrage fire. These thermobaric weapons cause blunt and penetrating wounds as well as massive thermal injuries.¹⁴

Lessons learned from UKR



3 D Warfare – Drones + artillery -> Severe injuries, more cranial and facial trauma

Wrong use of TQ -> amputations +++

MILITARY MEDICINE, 00, 0/0:1, 2024

Misuse of Tourniquets in Ukraine may be Costing More Lives and Limbs than they Save

Rom A. Stevens, MD*; Michael S. Baker, MD, FACS¹, ; Ostap B. Zubach, MD, Lt. UKR Michael Samotowka, MD, FACS



Lessons learned from UKR

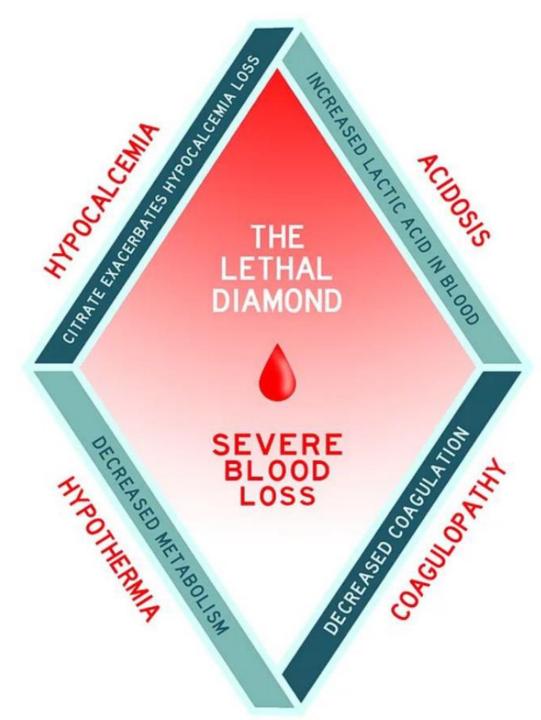


3 D Warfare – Drones + artillery -> Severe injuries

Wrong use of TQ -> amputations +++

Drones -> longer evacuation times

"The lethal diamond ain't lying"



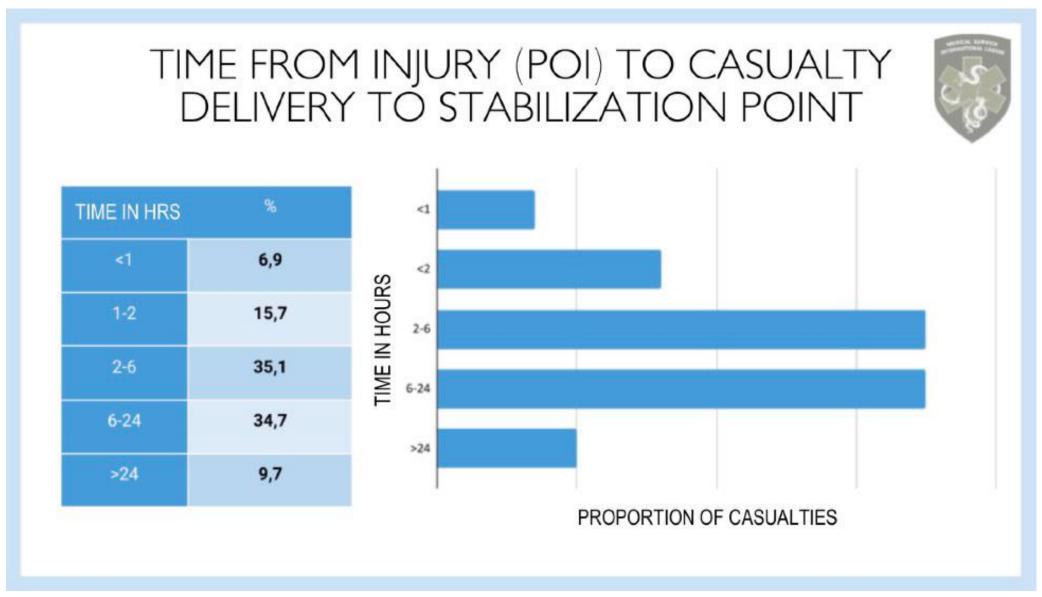


"GOLDEN" HOUR

ONLY 6.9% OF CASUALTIES WERE DELIVERED WITHIN ONE HOUR AFTER INJURY

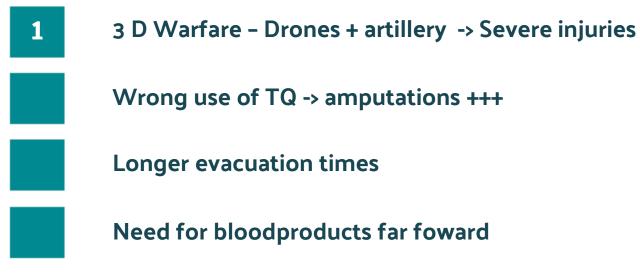
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Lessons learned from UKR



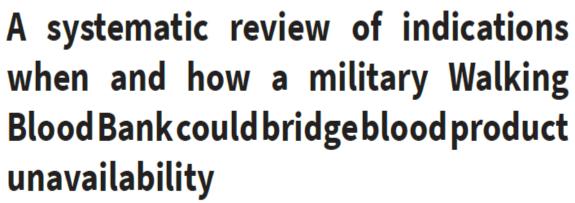
Transfusion at the front line in Ukraine

Surgeons on the GSMSG teams helped incorporate whole blood use into the conflict in Ukraine in April 2022. The number of patients who arrive at a UKRSOF forward surgical team alive and already in hemorrhagic shock is estimated at 25%. An additional 15% to 20% of alive and injured soldiers arriving at the first point of medical care needed a blood transfusion. Ukrainian surgeons sometimes operating as close as 0.5 km from the front line are the first to receive casualties from the battlefield. UKRSOF surgeons cite that difficulties with long-term storage pose the biggest obstacle to maintaining stores of any available blood products. Running power generators for refrigerating stored blood products at the forward surgical sites for extended periods of time could compromise security. In addition to limiting the ability to store whole blood or blood products, the lack of electrical power often prohibits thawing available frozen blood products with fluid warmers. Supply lines to the forward surgical teams routinely come under Russian attack, impairing the ability to replenish supplies of blood products for transfusion. There are additional strategies for generating readily available whole blood for transfusion, such as the Ranger O Low Titer/ Walking Blood Bank, which require a large, stable donor pool.^{21,22} However, the current rate of casualties, reloca-

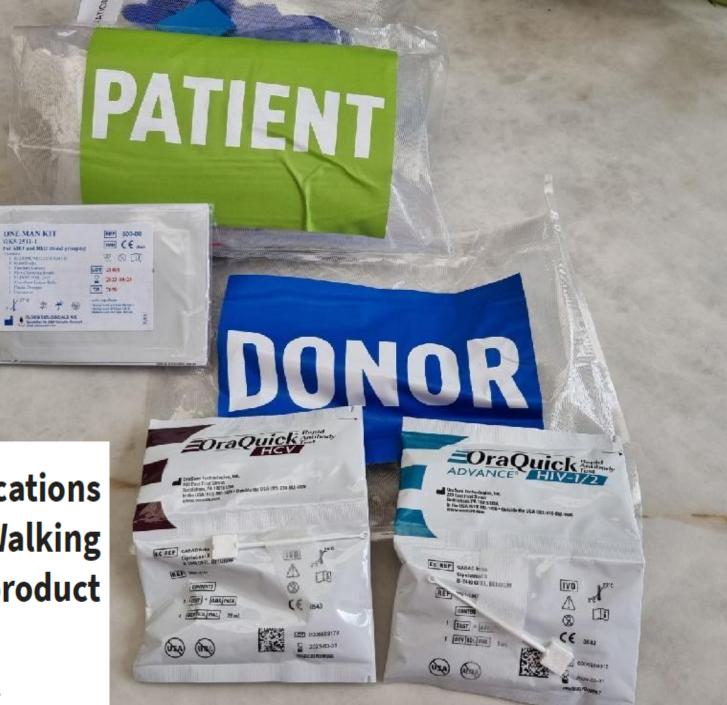


Poly-amputee transfusion in Kandahar 2011

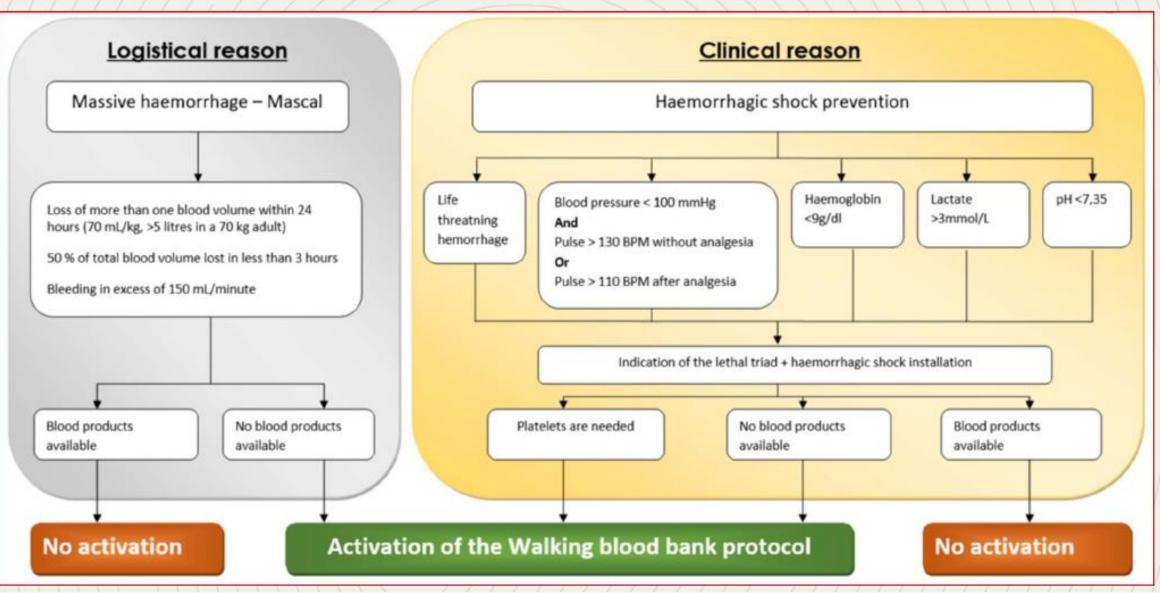




Julie Degueldre^{1,2}, Emilie Dessy¹, France T'Sas¹, Véronique Deneys²



BELGIAN PROTOCOL - DECISIONAL ALGORITHM



Received: 15 November 2023	Revised: 30 January 2024	Accepted: 31 January 2024
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DOI: 10.1111/trf.17757

ORIGINAL RESEARCH

TRANSFUSION

When do benefits turn to risks? Impact of a 900 mL whole blood donation on Special Forces performance

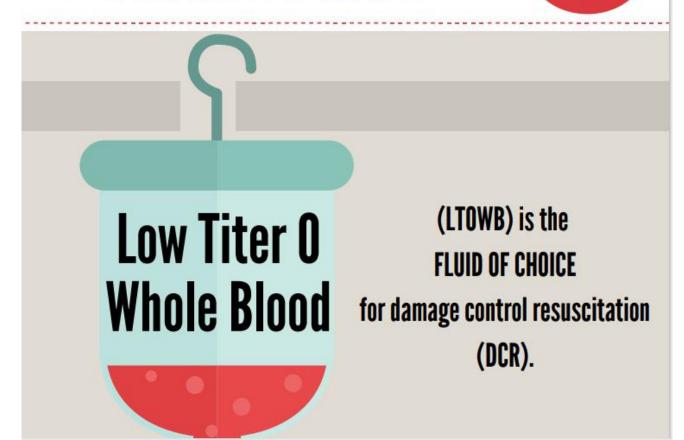
Julie Degueldre^{1,2} | E. Dessy¹ | F. T'Sas¹ | E. Keesebilck³ | V. Deneys²

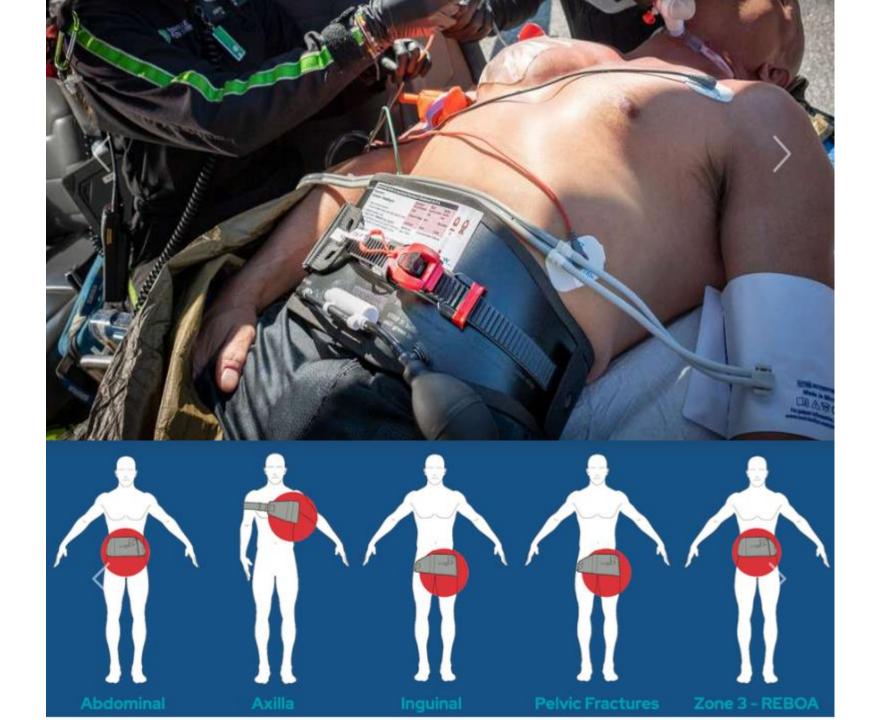


Fluids for Resuscitation



Guidance: To treat and reverse hemorrhagic shock and to provide warm whole blood as close to the time-of-injury as possible.





Lessons learned from UKR



3 D Warfare – Drones + artillery -> Severe injuries

Wrong use of TQ -> amputations +++

Drones -> longer evacuation times

Need for blood-products



CBRN -> use of white phosphor, manipulation of chemical war agents, nuclear effect







Miscellanous

Importance of clear AB protocols

Multidrug-resistant infections in war victims in Ukraine

Scott J C Pallett 🖾 • Alex Trompeter • Marina Basarab • Luke S P Moore • Sara E Boyd

Published: July 11, 2023 • DOI: https://doi.org/10.1016/S1473-3099(23)00391-2

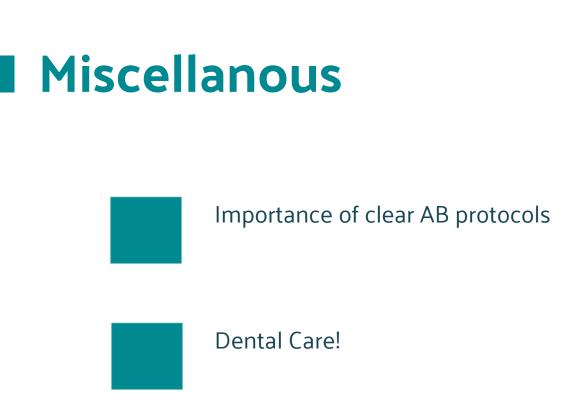
In *The Lancet Infectious Diseases*, Oskar Ljungquist and colleagues¹ provide valuable and timely exposure to the enormous challenges of highly multidrug-resistant, Gram-negative bacterial infections in patients with war-related injuries in hospitals in Ukraine.¹ In February, 2023, WHO proposed sentinel testing as a potential method to optimise national antimicrobial resistance surveillance for countries with limited laboratory capacity,² ³ and Ljungquist and colleagues also now highlight its potential for use in conflict areas.¹

	Klebsiella pneumoniae*	Acinetobacter baumannii	Enterococcus faecalis
Amoxicillin	>32 (R)	ND	St
Co-amoxiclav	>32 (R)	ND	ND
Piperacillin-tazobactam	>64 (R)	ND	ND
Aztreonam	>16 (R)	ND	ND
Ceftazidime	>16 (R)	ND	ND
Ceftriaxone	>8 (R)	ND	ND
Cefiderocol •	21 mm† (ATU)	14 mm†‡	ND
Imipenem	>8 (R)	>8 (R)	ND
Meropenem	>8 (R)	>8 (R)	ND
Amikacin	>16 (R)§	>16 (R)§	ND
Gentamicin	>4 (R)§	>4 (R)§	ND
Ciprofloxacin	>1 (R)	>1 (R)	ND
Levofloxacin	>2 (R)	>2 (R)	ND
Fosfomycin	>64 (R)	ND	ND
Eravacycline	2¶	0.5‡	ND
Tigecycline	20 mm†	0.5‡	0·125 (S)
Colistin	0-5; 2**	1 (S)§	ND
Co-trimoxazole	>4 (R)	>4 (R)	ND
Vancomycin	ND	ND	2 (S)

Data are minimum inhibitory concentration (mg/L) unless stated otherwise. ATU=area of technical uncertainty. EUCAST= European Committee on Antimicrobial Susceptibility Testing. ND=not determined. R=resistant. S=susceptible. *Producing New Delhi metallo- β -lactamase carbapenemases. †Disk-diffusion test conducted according to EUCAST Clinical Breakpoints v13.0. ‡No breakpoint. §According to EUCAST Guidance Document EUCAST Breakpoints in Brackets, 2021. ¶Breakpoint validated for Escherichia coli only. ||Data for E coli and Citrobacter koseri only. **Two strains noted by reference laboratory.

Table: Selected antimicrobial susceptibility test data for organisms isolated from an infected warrelated combat injury of the left lower leg in November, 2022, Ukraine





Healthier teeth, stronger fighters: meet Ukraine's frontline dentists

Volunteers of Ukrop Dental are helping soldiers and civilians in region where aid is woefully lacking





Capt. Earle Yeamans, 1st Infantry Division dentist, and his assistant, Spec. 5 Richard Ackley (*wearing glasse* Division infantryman on a defensive perimeter 21 October 1968 at Di An base, Vietnam, while others wait th drillings, and extractions. Three times a month, Yeamans and Ackley hoisted their six hundred-pound port helicopter and traveled to field locations where they stayed for three or four days, examining every man in the ments. (Photo by Bob Cutts, courtesy of *Stars and Stripes*)

The Role of Expeditionary Dentistry in Large-Scale Combat Operations

Lt. Col. Andres Mendoza, DDS, U.S. Army

Maj. Ross Cook, DMD, U.S. Army

Miscellanous



Importance of clear AB protocols

Dental Care!



Protection of health infrastructure



Health care facilities being attacked

Despite clearly violating international laws from the Geneva Convention, Russian forces are specifically targeting ambulances and healthcare facilities. According to the Ukraine Crisis Media Center, approximately 1,100 healthcare facilities have either been damaged or destroyed since the beginning of the conflict.³² Forward medical facilities, like a combat support hospital, therefore, may need to be positioned entirely underground. That may mean significant investments in rapid tunneling and earth-moving type of equipment are needed, none of which currently exists in a capability that can be deployed rapidly to a battlefield. The current practice of surrounding the





Transferable military medical lessons from the Russo-Ukraine war 8

Timothy J Hodgetts¹, DN Naumann² and DM Bowley²

Correspondence to Lt Col DN Naumann, Academic Department of Military Surgery and Trauma, Royal Centre for Defence Medicine, Birmingham, B15 2WB, UK; david.naumann(qnhs.net

https://doi.org/10.1136/military-2023-002435



Should we all be war-doctors?







YES!!!!! In one way or another



Whole of society-approach



NATO

National defence is the **ability to protect our own territory** (sea, ground, air, space and cyberspace) from deliberated disruption or attack. This requires a national defence concept based on the **'Whole of Government/Society approach'**, where the suitable combination of military capabilities and services from civil, private and governmental stakeholders need to be guaranteed in all stages of escalation (peacetime, crisis and conflict), up to and including (if needed) the transition to collective defence.

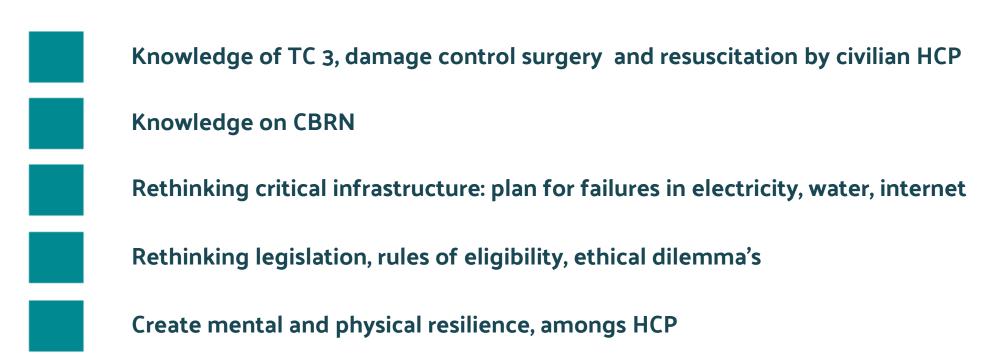
National defence plans that are established under the national defence concept **should be coordinated with our neighbours** (BENELUX, ...) in order to maximize their effectiveness.

National defence and collective defence are bound together as both form a continuum. In the military domain, the single set of forces implies that military capabilities required for national defence cannot be at the same time allotted to a supranational command

National or Societal Resilience is defined as the ability of a society to withstand adversities and crises, such as natural disasters or national security events (wars, terror attacks, as well as resist coercion and aggression from external actors in diverse realms by implementing changes and adaptations without harming society's core values and institutions.



What does it mean?





It is estimated that, based on UKRSOF experience in combat with Russia, such teams should be prepared to perform 10 damage control operations in 48 hours and hold up to 15 critically ill patients for the same amount of time without resupply. This is about the size of an intensive care unit in a medium-sized US hospital.

I Training as much people as you can

Quality of casualty care in the field, directly correlates with the quality of tactical medicine training delivered to warfighters of the group in which the casualty served. It is believed that TCCC CLS (Combat Lifesaver) level constitutes the sufficient minimum of training for all the warfighters in direct combat settings. However, in some circumstances the need for more advanced TacMed skills in the field necessitates more in-depth training. Special operations units already utilize this approach.

Although we support this line of reasoning, it does not match the reality in which assaults units in our Defense Forces. Let's note that the process often necessitates rapid training of countless civilians, who neither served in the military before, nor ever took care of the wounded. Therefore, at this stage of the war, we favor a more realistic pathway of extending the basic TacMed training for all the warfighters in the assault units. Additionally, each tactical group should have a junior combat medic with more advanced skills. It should be our goal that each warfighter masters a full spectrum of tourniquet utilization skills: massive hemorrhage control with a hasty or deliberate tourniquet, reassessment and readjustment of a hasty tourniquet, i.e. the earliest possible replacement and/or conversion within the relatively safe 2-hour period. With that, a group's junior combat medic would be able to focus on more advanced casualty care, reassessing care already delivered, and preparing the casualty for

Original text in Ukrainian: Medical Service Team; AFU 1_{st} International Legion of Defense Facebook: Medical Service International Legion E-mail: medservice.legion.ua@gmail.com Interpretation



Rules of Eligibility

		Population At Risk								
		(BEL)/WPN Forces	(NER) Forces	RED FORCES	CLN BI Mission Caused	CLN BI	CLN NBI			
		Supply Status GREEN								
	PHC	Y	N	N	N	N	N			
	DCR	Y	If LLE	If LLE	Ŷ	Y	Y			
	DCS	Y	If LLE	N	Y	N	N			
	(BEL) Blood	Y	N	N	N	N	N			
	CASEVAC	Ϋ́	If LLE	If LLE	If LLE	N	N			
	TACEVAC	Y	If LLE	If LLE	If LLE	N	N			
		Supply Status AMBER								
Treatment	PHC	Ŷ	N	N	N	N	N			
eat	DCR	Ŷ	If LLE	If LLE	Y	Y	Y			
	DCS	Y	If LLE	N	If LLE	N	N			
Medical	(BEL) Blood	Y	N	N	N	N	N			
Med	CASEVAC	Y	N	If LLE	If LLE	N	N			
~	TACEVAC	Y	N	If LLE	If LLE	N	N			
		Supply Status RED								
	PHC	Y	N	N	N	N	N			
	DCR	Y	If LLE	If LLE	If LLE	Y	N			
	DCS	Y	N	N	N	N	N			
	(BEL) Blood	Y	N	N	N	N	N			
	CASEVAC	Y	N	If LLE	If LLE	N	N			
	TACEVAC	Y	N	If LLE	If LLE	N	N			



Interesting literature

JOURNAL ARTICLE

Prehospital Lessons From the War in Ukraine: Damage Control Resuscitation and Surgery Experiences From Point of Injury to Role 2 Get access >

John Quinn, MD, MPH, PhD, EMT-P, Serhii I Panasenko, MD, DSci (Med), Yaroslav Leshchenko, MD, Konstantyn Gumeniuk, MD, PhD, Anna Onderková, MD, MSc, David Stewart, USAF, BSC (Ret.), A J Gimpelson, FP-C, CCP-C, TP-C, CICP, Mykola Buriachyk, MD, R&D, Manuel Martinez, PMD, CCEMTP, DMT, TP-C, Tracey A Parnell, MD, MRM, PGD-RCDM (UK) ... Show more

Military Medicine, Volume 189, Issue 1-2, January/February 2024, Pages 17–29,

https://doi.org/10.1093/milmed/usad253

Published: 30 August 2023 Article history •

Special Articles | November 2023

A Gray Future: The Role of the Anesthesiologist in Hybrid Warfare

Fredrik Granholm, M.D.; Derrick Tin, M.B.B.S.; Leilani Doyle, M.D.; Gregory Ciottone, M.D.

+ Author and Article Information

Anesthesiology November 2023, Vol. 139, 563-567.

https://doi.org/10.1097/ALN.000000000004706



Joint Trauma System

The Department of Defense Center of Excellence for Trauma

Bold, Responsible Practice of Battlefield Medicine

PI/CPGs

Home » PI/CPGs » Clinical Practice Guidelines (CPGs)

Printer Friendly 📇

🖸 Share / Save 🖪 🈏 🖻

Performance Improvement

PI Corner: Hot Topics

Patient Safety

Projects & Initiatives

Assessments, Reports, Plans

PI services

Clinical Practice Guidelines (CPGs)

CPG Training Presentations

Damage Control Resuscitation

JTS Center for COVID-19 Clinical Resources

Clinical Practice Guidelines (CPGs)

Clinical Practice Guidelines (CPGs) are the backbone of the JTS Performance Improvement program for combatant command trauma systems. The JTS remains committed to using the highest levels of analytical and statistical analysis in its CPG development process. The CPGs are compiled from DoD Trauma Registry data, health data abstracted from patient records and after action reports. The data are analyzed and distilled into guidelines to remove medical practice variations and save lives. The CPGs are used by military and civilian healthcare providers worldwide and are largely responsible for decreasing case fatality rates.

CPGs are evidence-based and developed with subject matter experts in the military and civilian communities, deployed clinicians, trauma care physicians, surgical consultants, and JTS leaders. The JTS CPG standards and recommendations have found their way into the civilian medical communities. CPGs are freely available for download.

Send suggestions for CPGs and differing viewpoint(s) to: dha.jbsa.healthcare-ops.list.jts-cpg@health.mil.

https://tccc.org.ua/en Combat Casualty Care

TCCC for the military

About v Forum A Donate v

ТССС



American course of tactical medicine

Q What are you looking for?

Public persons



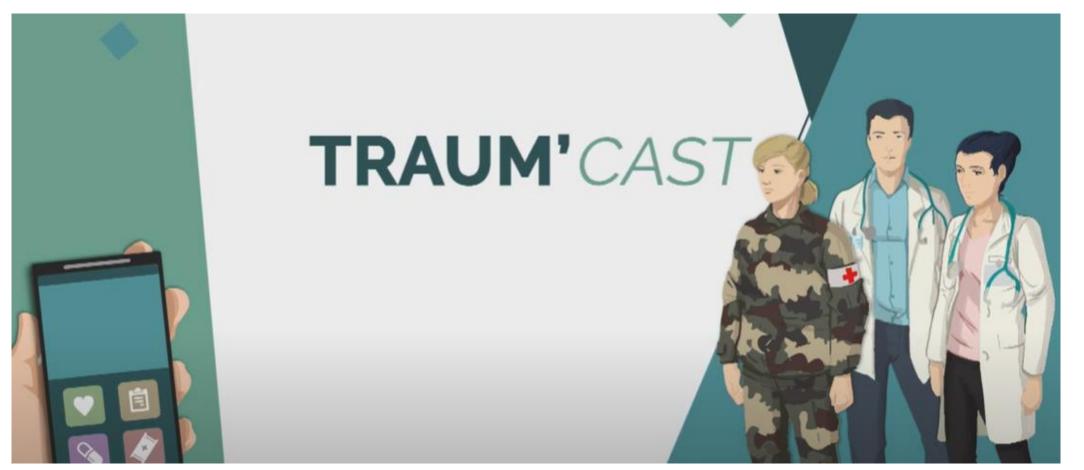
More details \rightarrow





Personal account

Youtube





SAMEN STERKER PODCAST DEFENSIE - S03 / E10 Dr. Jelle Bos over militaire gezondheidszorg in oorlogstijd: "Je gaat dertig jaar terug in de tijd."

Samen Sterker Podcast Defensie - 53 / E10 Dr. Jelle Bos over militaire gezondheidszorg in ...







Share Listen at

Reserve DNR <u>www.mil.be</u>

COMOPSMED-AMO@mil.be, subject Besedim

Reservisten bij Defensie

Als reservist gebruik je **jouw kennis** en **ervaring** in een **unieke omgeving**. Je gaat voor de uitdaging en werkt samen met militairen aan een opdracht waar je vaardigheden en talenten mee het verschil maken. Een paar dagen per jaar of voltijds: er zijn **verschillende manieren** om jezelf bij de Reserve aan te sluiten. De vaardigheden die we zoeken zijn bovendien heel divers.





Questions?

Tien, H., & Beckett, A. (2022). Medical support for future large-scale combat operations. Journal of Military, Veteran and Family Health, (aop), e20210006.

•PLOS Medicine Editors. (2022). Ukraine conflict: Prioritizing lives and health.PLoS Medicine,19(5), e1004007.

•Chumachenko, D., & Chumachenko, T. (2022). Ukraine war: The humanitarian crisis in Kharkiv.BMJ,376.

•GENE, I. O. M. I. H., & CARASIL, O. (2022, April). Vinnytsia National Pirogov Memorial Medical University Vinnytsia, Ukraine. InThe 10 th International scientific and practical conference "International scientific innovations in human life" (April 13-15, 2022) Cognum Publishing House, Manchester, United Kingdom.2022. 668p.(p. 101)

•Rubin, R. (2022). Physicians in Ukraine: Caring for Patients in the Middle of a War.JAMA,327(14),1318-1320.

•Mahase, E. (2022). "Same tactics, same injuries": the targeting of healthcare in Syria and Ukraine.bmj,378.

•Gostin, L. O., & Rubenstein, L. S. (2022). Attacks on health care in the war in Ukraine: International law and the need for accountability.JAMA,327(16),1541-1542.

•Fontanarosa, P. B., Flanagin, A., & Golub, R. M. (2022). Catastrophic health consequences of the war in Ukraine.JAMA,327(16),1549-1550.

•Fong, A., & Johnson, K. (2022). Responding to the war in Ukraine.Canadian Journal of Emergency Medicine, 1-2.

•Roborgh, S., Coutts, A. P., Chellew, P., Novykov, V., & Sullivan, R. (2022). Conflict in Ukraine undermines an already challenged health system. The Lancet, 399(10333), 1365-1367.

•Piven, D. A., & Us, Y. O. (2022). Public Health Projects in Ukraine.



NATO STANDARD

AMedP-5.3

TELEMEDICINE FOR MISSION SUPPORT





Military Medical Ethics and law

International Humanitarian Law

Under customary international humanitarian law Rule 25, "Medical personnel exclusively assigned to medical duties must be respected and protected in all circumstances," according to the International Committee of the Red Cross <u>what_is_ihl.pdf (icrc.org)</u>.



ADVISORY SERVICE

ON INTERNATIONAL HUMANITARIAN LAW

What is International Humanitarian Law?



Geneva Conventions

V

PROTOCOL ADDITIONAL TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, AND RELATING TO THE PROTECTION OF VICTIMS OF INTERNATIONAL ARMED CONFLICTS (PROTOCOL I), OF 8 JUNE 1977

VI

PROTOCOL ADDITIONAL TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, AND RELATING TO THE PROTECTION OF VICTIMS OF NON-INTERNATIONAL ARMED CONFLICTS (PROTOCOL II), OF 8 JUNE 1977



Ethical aspects of being a military health care provider

What are the implications of being a physician and a soldier at the same time? Can the 2 professions be reconcilied?

Do you need to have a separate professional ethic for physician-soldiers or are the bound to medical or military ethics alone?



The Key Issue of Military Medical Ethics

"Although there is an **inherent paradox** in the idea that a soldier can be both a member of a military profession dedicated to '**wounding**' and a member of a medical profession dedicated to '**healing**,' military medical professionals find themselves **occupying precisely that space**." ⁽¹⁾

"The military medical personnel faces the conflict originated both from the medical and military professions. Ethical issues arise when the physician is forced to **choose between the benefit of an individual patient and the needs of an army**."⁽²⁾

⁽¹⁾ Gordon (2015), 189. ⁽²⁾ Nemeth (2011), 222.





Physician <u>and</u> Soldier at the same time?

	Military Oath
 <u>Hippocratic Oath</u> Duty and obligations to the	 Duty and obligations to the
Patient <u>Medical Ethics</u> Principlism Care <u>Individual Logic</u>	country: national security



"When faced with a conflict between military and medical loyalty, military physicians either forsake their neutrality and side with the former, or physicians honor their medical oath and decide against their military and in favor of their medical loyalties."

- Introduction of a fifth/ another principle into medical ethics.
 - 4 Principles of Biomedical Ethics (Patient Autonomy, Non-Maleficence, Beneficence, Justice) & Military Necessity

How to deal with conflicting (role) obligations ?

"It is expected from a 'sovereign physician's character' to meet this conflict adequately. A problem that cannot be solved on the institutional level is broken down to the personal level. The medical officer is challenged with the balancing act between two kinds of ethics that both demand primacy."



So all these laws and conventions should help you...

	International humanitarian law	International human rights law	Medical ethics
Scope of application	International armed conflict Non-international armed conflict	International armed conflict Non-international armed conflict Other situations of violence	International armed conflict Non-international armed conflict Other situations of violence
Beneficiaries	Wounded and sick Medical personnel	Wounded and sick Medical personnel	Wounded and sick
Bound by the law	States Armed groups Individuals (medical personnel)	States	Medical personnel

