

### Department of Emergency Situations

### Clinical Facilities in Operational Tactical Medicine - experience from Romania



### Alin SUCIU, MD

primary care physician emergency medicine specialist in pneumology and bronchology Department for Emergency Situations General Directorate for Emergency Management (DGMU)

US Cetificated Medical Director in Special Operation

## Operational tactical medicine

### Definition

Tactical operational medicine refers to the application of medical principles in emergency situations, especially in hostile or unpredictable environments, such as during military operations, natural disaster emergency response or mass casualty response activities.

## Operational tactical medicine

### Objectives

Provide immediate medical care: intervene quickly to save lives and prevent injuries from worsening

Minimize risks for medical staff: create a safe environment for intervention teams, allowing them to carry out their tasks efficiently.

## Roles and Echelons of Medical Support

### Definition

- "Role" or "Echelon" describes the stratification of the four tiers of medical support.
- Each level is organized progressively for treatment, evacuation, and resupply.

## Roles and Echelons of Medical Support

### Distinction

- "Role" is used by land or air forces; "echelon" is primarily a maritime term.
- Defined by capabilities and resources, not specific types of medical units.

## Roles and Echelons of Medical Support

### Operating Principles

- Intrinsic Capabilities

  Each support level includes functions of the lower level.
- Resupply and Support

  Each level is responsible for supporting the levels below it.
- Flexible Evacuation

  Patients do not have to pass through every echelon of care.

### Role/Echelon 1 Medical Support

- Definition
  Integral support for small units.
- Capabilities

  First aid, immediate lifesaving measures, triage.
  - Guidance for disease prevention and operational stress management.
- Functions

  Care for lightly injured personnel for quick return to duty.

### Role/Echelon 2 Medical Support

**Definition** 

Provided at the brigade level or larger units

Capabilities

Evacuation from Role/Echelon 1 facilities, triage, resuscitation.

Treatment and holding of patients for recovery or evacuation.

Role 2+ Variant

Emergency surgical capabilities for specific operations.

### Role/Echelon 3 Medical Support

Definition

Provided at the division level and above

Capabilities

Specialized diagnostic resources, surgical and advanced medical capabilities

Operational stress management.

Typical Facilities

Field hospitals with holding capacity for patient diagnosis and treatment

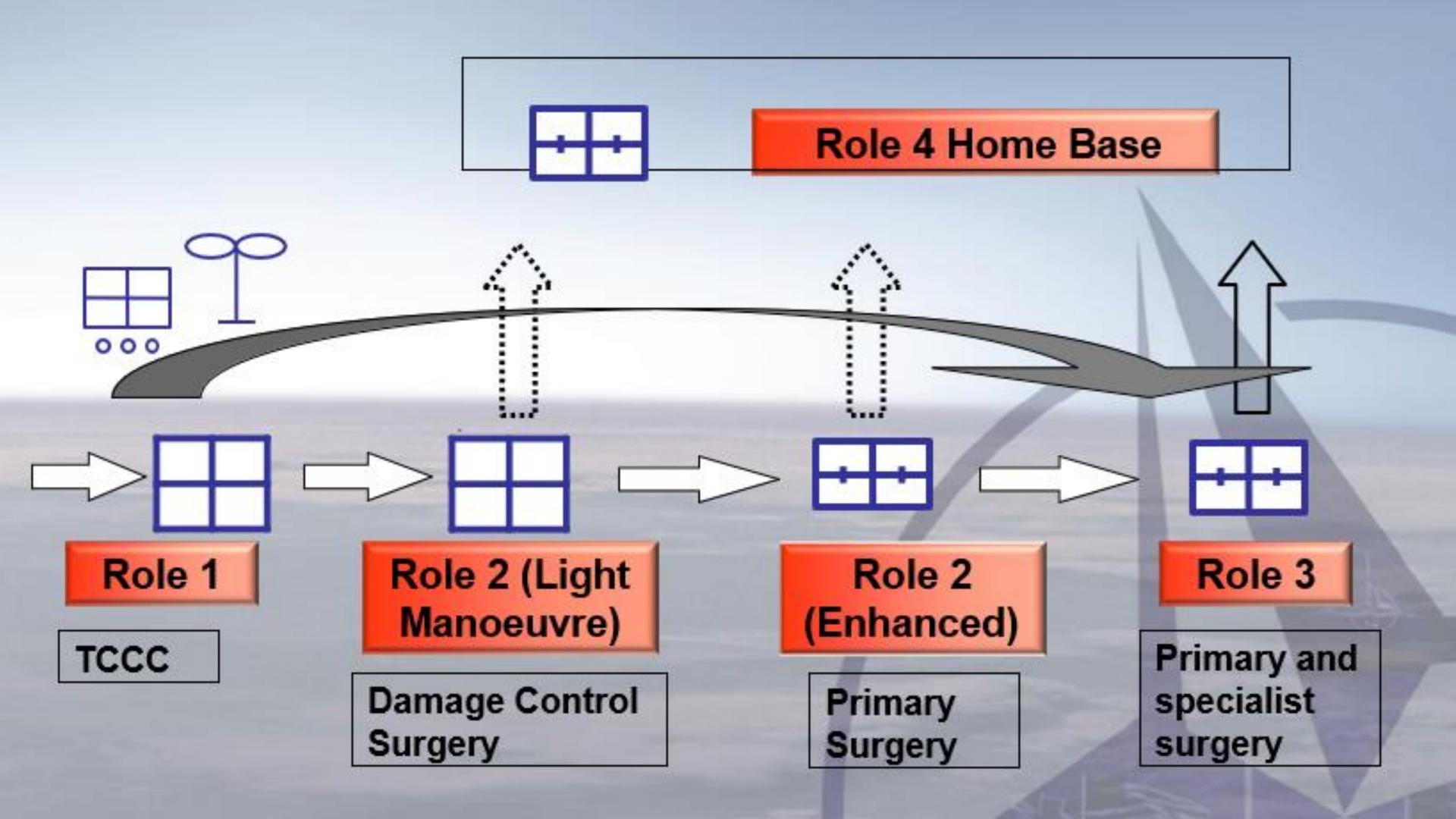
### Role/Echelon 4 Medical Support

Definition

Definitive care for patients requiring long-term treatment

Capabilities

Specialized surgical procedures, rehabilitation, convalescence



### Role/Echelon 4 Medical Support

### Location

Usually in the country of origin but may be established in operational theaters under unusual circumstances.

### In-Transit Care

Medical units providing care for patients in transit under medical personnel supervision ensure continuous monitoring and treatment during evacuation

## Forward Surgical Teams (FST)

- Small, mobile surgical units.
- Establish a functional operating room within 1.5 hours.
- Includes 20 staff members: 4 surgeons, 3 RNs, 2 CRNAs, etc.
- Perform damage control surgery on combat casualties within the "golden hour" of injury.

## CASUALTY STAGING UNIT (CSU)

- A medical unit caring for in-transit patients under medical personnel supervision
  - Ideally, CSU should include an Intensive Care Unit (ICU) and an advanced triage area for quick patient assessment and prioritization of care and evacuation.

# Intratheater Casualty Flow Progression Intratheater Aeromedical Evacuation Role III

### Intertheater



Intertheater Aeromedical Evacuation

Role IV

### Theater Hospitalization

- •EMEDS+10
- •EMEDS+25
- AF Theater Hospital



·NATIONAL MTFs



Rolell

Forward Resuscitative Care

·EMEDS Basic



Deployed ground medical capabilities



Casualty/Medical

**Evacuation** 

First Responder

Self-Aid/ BuddyCare

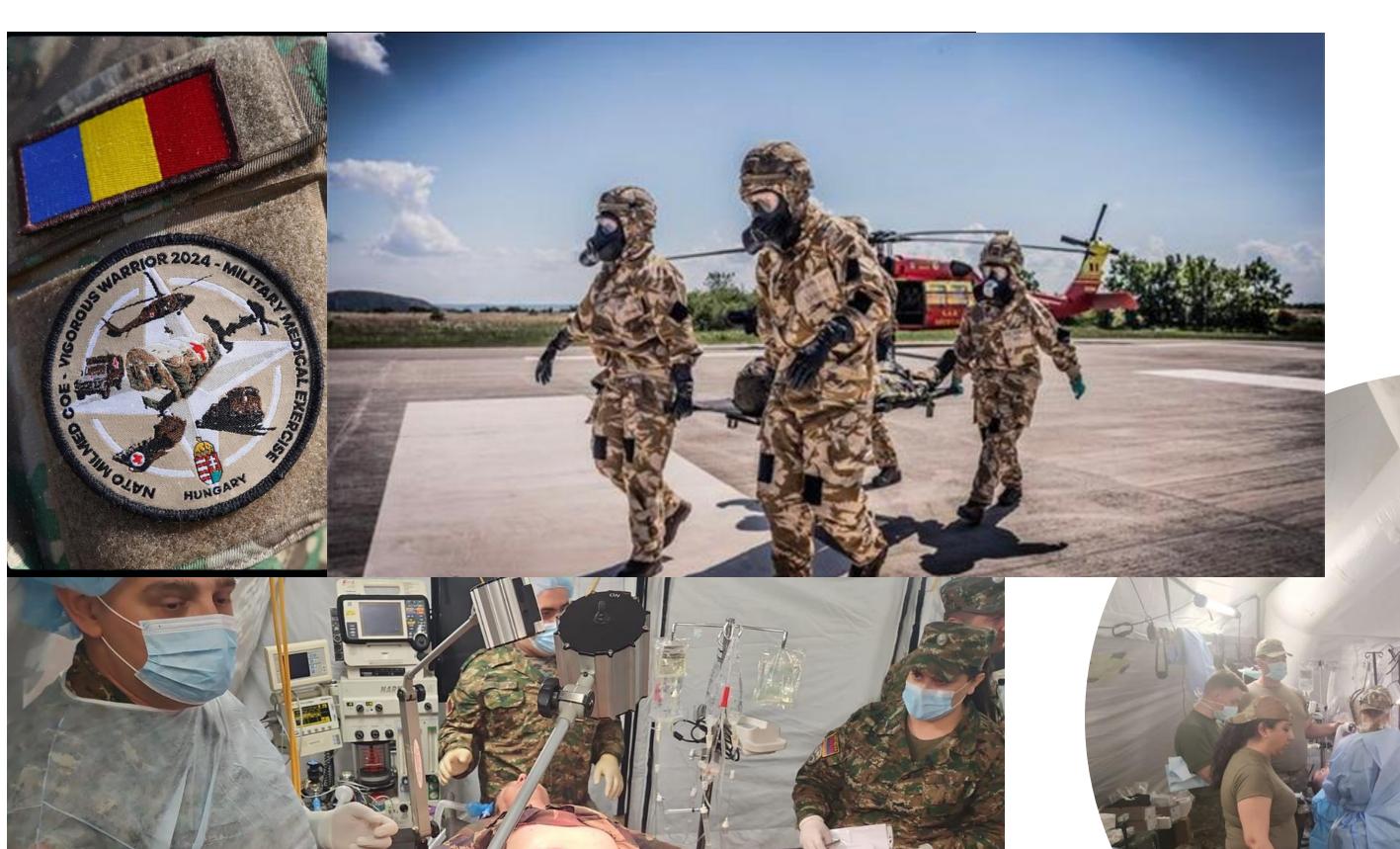
**Essential Care** 



### Importance of Roles/Echelons

- Essential structure for the efficiency and success of medical interventions in operations.
- Flexibility and Collaboration:

Cooperation between echelons ensures optimal patient care.



### Bakonykúti Training Area, Hungary







### Conclusions

- Tactical operational medicine relies on clinical facilities to stabilize and treat patients in critical environments, enhancing survival and recovery through advanced care and trained teams.
- Technological advancements like telemedicine and improved training methods, such as simulation and virtual reality, will empower medical teams to be more proactive and adaptable in challenging conditions.
- It's crucial to continuously support and prepare those in tactical medicine through investments in training, resources, and innovation, ensuring they are equipped to save lives on the front lines.







