

GRM



**GLOBAL
RESPONSE
MEDICINE**

DECEMBER 2023

MDT TRAUMA SURGERY:

2-Week Immersion at
University of Chicago



**Co-funded by
the European Union**

SUMMARY

In partnership with WHO and the EU, Global Response Medicine (GRM) developed and implemented a specialist multidisciplinary (MDT) war trauma surgical care package using a Training of Trainers (ToT) approach that included a two-week trauma surgery and complex injury management immersion at the University of Chicago (UChicago) in December 2023. Immersion proved to be an invaluable tool in the development of the overarching deliverable of an acute care training package as exposure to other systems and hands-on experience allowed idea exchange to conceptualize best practice for the Ukraine context and real world application methods.



Four doctors from the Dnipro Emergency Hospital attended the fellowship at the University of Chicago with Dr. Taras Kushnir serving as the education liaison. Under the expertise of Dr. Tim Plackett, the team observed daily activities of the hospital with the majority of their time in the Emergency Department / Trauma Bay, Trauma Operating Room, and ICU. Participants observed hospital processes, procedures, and best practices in relation to patient care, case management, and medical procedures, on a daily basis followed by a debrief with hospital staff and Dr. Plackett.

This training experience empowered the Ukrainian doctors to carry best practices back with them to their home facilities in order to improve both efficiency and efficacy of their emergency practice. This will result in more positive outcomes for individuals impacted by the ongoing war in Ukraine by allowing the medical teams there to provide care to a greater number of patients and reduce the impact of potentially life-altering injuries.

PROGRAM DETAILS

Following the two-week trauma surgery course at the Dnipro Emergency Hospital, four key stakeholders were identified to participate in a two-week trauma surgery observation fellowship at the University of Chicago in December 2023. The stakeholders included:

- General Director, Clinical Emergency Hospital
- Director, Surgical Department
- Lead Professor, Surgical Education
- Lead Professor, Anesthesia

The training program's main objective focused on how best practices for trauma surgery protocols and direct care protocols are implemented in an urban environment and how to adapt these protocols for their hospital departments. Prior to their travel to the US, the doctors were assigned exercises that encouraged them to analyze their departments with a critical lens. These exercises included comparing the physical layout of the emergency department of their home hospital and the hosting hospital via blueprints, a survey of the strengths and weaknesses of their department, and a SWOT analysis of their department's performance.

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The main takeaway for us is that the processes and tactics to support medicine in the US is far superior to Ukraine. This has given us an opportunity to see what is possible for making changes to our system, which will become our main focus returning home.

Dr. Taras Kushnir

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During their time at UChicago, the fellows had a structured learning experience designed to mirror US residency programs with clear goals, topics for learning, case studies, bedside training, systems learning, data and QI support, and professional leadership development (a detailed list of the curriculum can be found in Annex I). They spent the majority of their time in the Emergency Department, Trauma Operating Department, and ICU in order to demonstrate the necessity of a cohesive pathway for patient care. By doing this, the doctors gained an understanding of the different aspects of trauma management and how one step has an impact on other medical decisions and outcomes.

In the two-week period, the fellows observed the following activities and hospital practices, as organized by department:

ER Department / Trauma Bay

- Patient transfers
- Time management
- Trauma activation
- Team approach in trauma bay
- Electronic systems for accountability

Trauma Operating Rooms

- Operating room is always ready
- Pre-op briefing
- Damage control surgery

Other Departments

- Supportive environment / mentorship
- Data driven quality control
- Information bulletins





I thought I understood what was being explained in Ukraine, but on my first day at University of Chicago, I felt like I was in a science fiction cartoon. I had never imagined anything as efficient and accountable. Now, witnessing this, we understand clearly what was being taught in Ukraine and the time needed to make changes properly.

Surgeon, Dnipro Emergency Hospital



CONCLUSION

By the end of the two-week immersion, the fellows felt empowered to introduce protocol changes in their departments at their home hospital. Trauma surgery is relatively new to Ukrainian medical practices and because the Dnipro Emergency Hospital is near the frontline, the hospital staff treats large numbers of wounded individuals. It is imperative to introduce best practice trauma protocols to increase efficiency within the hospital in order to provide better medical care and save more lives.

“ We understand from this experience that the focus needs to be on education and training, especially for our nurses who aren’t given the responsibility that they are capable of. ”



KEY OUTCOMES

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| Team approach in the trauma bay | Improve trauma activation by introducing Red Zones and protocols (ALS, ATLS, etc) |
| Delegate responsibilities to nurses and residents | Pre-operational briefings |
| Mentorship | Knowledge exchange |
| Improved time management in the ER by introducing a new position who will be responsible for documenting information on the patient | |



We were able to help UChicago with their mass casualty plan unexpectedly, because we do mass casualties every day. This is the point of bi-directional learning.

General Director, Clinical Emergency Hospital



ANNEX I: CURRICULUM & TRAINING TOPICS

I. Team Roles

II. Administration of ER / Trauma Department

III. Blood Product Utilization

IV. Management - Antibiotics

V. Management - Hemothorax & Pneumothorax

VI. Management - Rib Fractures

VII. Portable USG Devices