



FOUNDATION

UCD Ukraine Trauma Project

Special report

April 2024





Thank You

February of this year marked two years since the outbreak of the war in Ukraine, and we continue to watch the conflict unfold with grave concern. The UCD Centre for Emergency Medical Science is committed to addressing humanitarian needs in Ukraine.

The idea for the UCD Ukraine Trauma project began as a result of conversations with Ukrainian medical staff who arrived in Dublin as refugees following Russia's attack. Through English conversation classes provided by volunteers that included paramedics and doctors connected to the UCD Centre for Emergency Medical Science, it became clear that we had life-saving expertise in Ireland that was not widely available in Ukraine.

We established the UCD Ukraine Trauma project and started delivering training skills in advanced techniques to hundreds of medics/paramedics across a whole range of agencies in Ukraine. I am humbled by the work that our Ukrainian colleagues are achieving against a backdrop of conflict, violence and human suffering — it is really has been a privilege to work alongside them.

The training sessions that have taken place in Ukraine have been possible due to your support and we are extremely grateful that we can count on your generosity.

You are doing a great kindness and for this, I offer you my sincere thanks.

Sincerely,

Gerard Bury

Professor Gerard Bury
UCD Centre for Emergency Medical Science





UCD Ukraine Trauma Project

The UCD Centre for Emergency Medical Science was established in 2001 to provide a national centre of excellence for research, development, education and training in pre-hospital emergency care. UCD-CEMS has worked closely with Irish statutory emergency services and the Irish Defence Forces for many years.

The UCD Ukraine Trauma Project is an initiative of the UCD Centre for Emergency Medical Science (UCD-CEMS). The project was established in 2022 in response to a direct request from Ukrainian authorities to provide training in advanced, life-saving interventions to civilian and military medical/paramedical personnel involved in the pre-hospital emergency care of trauma-related casualties.

This critical initiative focuses on a number of priority actions, including training Ukrainian colleagues in advanced techniques to control massive bleeding resulting from severe traumatic injuries, and providing essential drugs and equipment to support emergency care in Ukraine.

A team of experts from UCD-CEMS mobilised to travel to Ukraine in November 2022 to deliver the first training session. Since then, a number of further missions have taken place and the Irish medics/advanced paramedics have trained some 200 Ukrainian first responders – military and civilian – in advanced emergency interventions.

The UCD team uses a ‘train the trainer’ approach, whereby participants not only learn practical skills but also essential teaching skills that will enable them to train other colleagues.



The Ukraine Trauma Project is fully aligned with the Irish government’s position on providing humanitarian assistance to Ukraine.



Project Aims

The aims of the Ukraine Trauma Project are to:

- Provide customised ‘train the trainer’ courses with a focus on the use of IO TXA for medical/paramedical personnel (both civilian and military) – and to provide the necessary training skills to course participants to train others;
- Provide a supply of standardised kit containing the equipment needed to obtain IO access to deliver TXA;
- Provide translated course materials, and provide training mannequins for simulation;
- Provide other emergency pre-hospital kit, and training as requested (e.g. chest and pelvic injuries, hypothermia, burns, evacuation techniques, chemical/biological/radiation/nuclear attack);
- Collect and evaluate feedback and conduct research;
- Be fully compliant with Ireland’s neutrality and aligned with the position of the Irish government in relation to Ukraine.





TXA: A life-saving treatment

Analysis of trauma data from recent military conflicts shows that over a third of all combat deaths, and approximately 80% of all preventable combat deaths, are due to severe haemorrhage.

Administration of tranexamic acid (TXA) is a key intervention to control massive bleeding. TXA is a safe and effective medicine that has been used by Irish medics for over a decade to prevent deaths due to severe haemorrhage.

TXA must be delivered as early as possible (ideally within the first hour; it is ineffective after 3 hours) by intravenous (IV) or intraosseous (IO) routes. However, specialist training and equipment are needed to administer the treatment to severely injured persons.

Intravenous access may prove very difficult to achieve in severely injured persons on a battlefield; however, IO access can nearly always be achieved within 60-90 seconds by paramedical personnel who have been specially trained in this technique and who have the necessary specialist equipment. UCD-CEMS has provided this training to advanced paramedics in both the Irish statutory ambulance services and the Irish Defence Forces for many years. This training is not generally available in Ukraine.

At the outbreak of the war, the Ukrainian military medical services did not have the facility to deliver TXA immediately after combat injuries. In this context, UCD-CEMS was approached to help establish this capability within Ukrainian military medicine and to embed the capacity for cascade training.



Photo credit: Tyler Hicks/The New York Times



Missions accomplished to date

Mission 1 in November 2022. A four-person multidisciplinary team travelled to Lviv to deliver training and specialist medical equipment and medications to 29 medics/paramedics. Excellent feedback; request to continue.

Mission 2 in January 2023. Standardised emergency kit and medications were supplied to previous course participants.

Mission 3 in April 2023. A six-person multidisciplinary team travelled to Kyiv to deliver training and standardised emergency kit/medications to 60 medics/paramedics. Excellent feedback; request to continue and expand.

Mission 4 in September 2023. Standardised emergency kit and medications were supplied to previous course participants.

Mission 5 in October 2023. A seven-person multidisciplinary team travelled to Kyiv to deliver training and specialist medical equipment to 105 medics/paramedics. In addition, an airways management workshop was provided for 30 experienced trainers (two advanced airway mannequins and airways were also supplied).

Mission 6 in early 2024. Standardised emergency kit and medications supplied.

Further planned missions

Missions in 2024: Training courses for medics/paramedics in Kyiv.





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Impact of your support

The UCD Ukraine Trauma Project team is hugely grateful for the **philanthropic funding received from private and corporate sources** to sustain and increase its impact in Ukraine by making more life-saving missions possible. Thank you for partnering with us to help medics/advanced paramedics continue their life-saving work in Ukraine.

The project has received funding from the public, from corporate partners, HSE, Red Cross, the Association of Ukrainians in Ireland, and other organisations. Some medical equipment has also been donated.

Breakdown of expenditure:

- **Over 90% on medical kits/drugs;** 5% transport/travel (equipment/personnel); 3% training materials/research.
- **Start-up kits cost approx. €1,500** and contain a reusable IO drill, disposable IO needles, TXA, infusion fluids, draw-up & infusion equipment, haemostatic bandages, tourniquets, clothes shears.
- **Re-supply kits cost approx. €1,000** (and do not contain IO drills).
- **Additional equipment** is supplied according to requests, e.g. chest wound seals, pelvic fracture binders, airways etc.





Media coverage



We were so highly impressed – overwhelmed, actually – by the commitment, the focus, the enthusiasm to learn and the courage of the participants that we met... **I've never come across anything like this in my life, in terms of courage, motivation and dedication to patient care...**When you look at the cost of military hardware being made available [to Ukraine], the cost of this (TXA) equipment is minuscule. That's why we would like more support.

UCD-CEMS spokesperson, [The Irish Times, 22 April 2023](#)

We bring translated teaching materials, simulation mannequins, 3-D printed bones, training equipment, artificial blood. It's an intense, immersive course... **At the end of each course, we dispense tourniquets, haemostatic bandages, ampoules of tranexamic acid (a drug to control massive haemorrhage), special drills to insert needles into bone, and much more besides...** On the last day of each course, it's highly emotional as we say goodbye. The seven of us have lumps in our throats saying "Beannacht Dé oraibh go léir". It's like no other teaching experience any of us have had.

Professor Chris Fitzpatrick, [The Irish Times, 6 November 2023](#)



Media coverage – cont'd

The project has benefited the Irish medics as much as their Ukrainian students. The kind of work that these Ukrainian colleagues are doing is extraordinary — it is really a privilege to meet with them and work with them... **We are entirely dependent on external funding.** One of our students last week asked if the next course was going to be next week or the week after, so I wasn't able to answer.

Professor Gerard Bury, [Irish Examiner, 6 November 2023](#)



Peer-reviewed publication

The academic team behind the UCD Ukraine Trauma Project published a study in November 2023 based on their experiences of introducing advanced trauma-care skills to frontline emergency medical services responders in Ukraine.

See: [Bury G, Fitzpatrick C, Heron B, et al. Ukraine Trauma Project: the feasibility of introducing advanced trauma-care skills to frontline emergency medical services responders.](#)

[BMJ Open 2023;13:e077895. doi:10.1136/bmjopen-2023-077895](#)



Financial Summary

Ukraine Trauma Fund Project

as of 28 February 2024

Income		Expenditure		Total
Year	Received €	Expenditure Details	Funds allocated €	
2022-2024	86,775.00	Donations received by UCD Foundation*		86,775
		Travel (equipment/personnel)	4,747.56 -	4,748
		Training materials/research	1,408.70 -	1,409
		Medical supplies (kits/drugs)	80,618.74 -	80,619
Total	86,775.00		86,775	-

NOTES

*This is the amount of philanthropic donations and corporate donations received into UCD Foundation between October 2022 and February 2024 and transferred in full to the project. UCD Ukraine Trauma Project has also received funding directly from HSE, Irish Red Cross, and other organisations, which is not reflected in the figures presented here.



Thank You

Dear Supporter,

It is my pleasure and privilege to share this Special Report prepared for you outlining the activity of the UCD Ukraine Trauma Project since its launch in 2022 and to thank you warmly for your support.

This project has enabled the Centre for Emergency Medical Science at UCD to provide vital training to Ukrainian medical personnel in countering hemorrhaging from combat wounds. This has vital outcomes in saving both civilian and military lives.

With further planned missions on the horizon, I want to thank you for your generosity and solidarity in being a part of this initiative. At a time when Ukrainian civilians and military personnel alike are so thoroughly affected by armed conflict, the impact of your support truly is life-saving.

Best wishes,

Sheena McLoughlin
Associate Director



Thank you for your support

For more information, contact

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