"PIUS BRÎNZEU" EMERGENCY COUNTY CLINICAL HOSPITAL TIMIȘOARA

REPORT ON THE IMPLEMENTATION OF THE TRAINING PROGRAMME

within the framework of the cross-border project

"Enhanced cross-border capabilities for primary, emergency and intensive care in Timis – Csongrád-Csanád cooperation area"

Project ID: ROHU00472
Project Acronym: ECBC–PEIC
Programme: Interreg VI-A Romania-Hungary 2021–2027

Training Programme for Six Medical Residents from Szeged, Hungary

Period: 29 June – 3 July 2026
Location: Timișoara, Romania
Duration: 5 days

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1. Background and Purpose of the Activity

During the period **29 June – 3 July 2026**, as part of the cross-border project **ROHU00472 – ECBC–PEIC**, an intensive training programme was organised in Timișoara for a group of six medical residents from Szeged, Hungary.

The programme was designed as a theoretical and practical training activity in the field of critical care medicine, with a particular focus on **intensive care, extracorporeal support techniques, advanced resuscitation, and the management of complex cases**.

The activity aimed to facilitate the exchange of medical experience and best practices among healthcare professionals from the Timiș – Csongrád-Csanád cross-border area, as well as to develop the participants' professional competencies through exposure to modern diagnostic, monitoring, and treatment methods used in intensive care.

The programme combined theoretical sessions, demonstrations and practical activities, clinical case discussions, and participation in activities carried out within the intensive care units of Timișoara.

An important component of the programme was to familiarise participants with modern extracorporeal support techniques, including **Continuous Renal Replacement Therapy (CRRT), Therapeutic Plasma Exchange (TPE), the use of adsorbers and specialised filters for patients with sepsis, extracorporeal carbon dioxide removal ($ECCO_2R$), and extracorporeal oxygenation**.

Furthermore, the program included a day dedicated to **Advanced Life Support (ALS) training**, based on the principles and content of the international **European Resuscitation Council (ERC) curriculum**. The activity was educational in nature and did not involve the award of an official ERC certification.

2. Program Participants

The training program was attended by six resident physicians from Szeged, Hungary:

1. **Fodor Mate**
2. **Nagy Viktoria**
3. **Kele Anna**
4. **Erdos Reka**
5. **Hites Benjamin**
6. **Nemeth Rebeka**

The participation of the resident physicians from Szeged represented the key international and cross-border component of the program, facilitating the exchange of clinical knowledge and experience between healthcare professionals from Hungary and Romania.

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3. Medical Institutions Involved

The training program was conducted at two medical institutions in Timișoara, according to the specific focus and clinical content of each day's activities.

On **Monday, June 29; Wednesday, July 1; Thursday, July 2; and Friday, July 3, 2026**, the activities were conducted in the **Department of Anesthesia and Intensive Care of the "Pius Brînzeu" Emergency County Clinical Hospital, Timișoara**.

On **Tuesday, June 30, 2026**, the activities were conducted in the **Department of Anesthesia and Intensive Care of the "Louis Țurcanu" Emergency Clinical Hospital for Children, Timișoara**, allowing the participants to gain exposure to the specific principles and challenges of managing critically ill pediatric patients.

The use of two training sites allowed the program to address both **adult critical care** and specific aspects of **pediatric intensive care**, thereby providing the participants with a broader and more comprehensive clinical learning experience.

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4. Instructors and Clinical Faculty

The activities conducted at the **"Pius Brînzeu" Emergency County Clinical Hospital, Timișoara**, were delivered and coordinated by:

- **Assoc. Prof. Ovidiu Bedreag, MD**
- **Assoc. Prof. Marius Papurica, MD**
- **Ciprian Mihai Gîndac, MD**
- **Adelina Băloi, MD**
- **Claudiu Bârsac, MD**

The activities conducted at the **"Louis Țurcanu" Emergency Clinical Hospital for Children, Timișoara**, were delivered by:

- **Cucui Cosma Cosmina, MD**
- **Ovidiu Smida, MD**
- **Adriana Cioară, MD**

The involvement of a multidisciplinary team of physicians with expertise in **critical care medicine** enabled the topics to be addressed from a practical, clinically oriented perspective, appropriate to the participants' level of professional training.

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5. Training Program Objectives

The training program aimed to achieve the following objectives:

5.1. Development of Knowledge and Skills in Extracorporeal Therapies

The participants were introduced to the principles, clinical indications, and practical aspects of the main **extracorporeal support therapies** used in contemporary critical care.

5.2. Development of Competencies in Continuous Renal Replacement Therapy (CRRT)

A key objective of the program was to consolidate the participants' knowledge and practical understanding of **Continuous Renal Replacement Therapy (CRRT)**, including the fundamental principles of the therapy, clinical indications, and practical considerations for its use in **critically ill patients**.

5.3. Understanding Anticoagulation Strategies

Participants analyzed the advantages and specific considerations related to the use of **heparin and citrate** for anticoagulation of extracorporeal circuits.

5.4. Familiarization with Therapeutic Plasma Exchange

The programme aimed to introduce participants to the indications, principles, and techniques of **therapeutic plasma exchange**, as well as to the integration of this method into the management of critically ill patients.

5.5. Familiarization with Advanced Extracorporeal Therapies

Participants were introduced to the principles of using:

- adsorbers;
- special filters for patients with sepsis;
- extracorporeal CO_2 removal;
- extracorporeal oxygenation.

5.6. Development of Advanced Resuscitation Skills

Through the **Advanced Life Support** module, participants had the opportunity to deepen their understanding of the principles of managing patients experiencing cardiac arrest, based on the principles of the international ERC curriculum.

5.7. Cross-Border Exchange of Experience

A cross-cutting objective of the entire programme was to foster professional collaboration between medical specialists from Timișoara and Szeged, with the aim of establishing a common knowledge base and sharing best practices in the management of critically ill patients.

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6. Implementation of the Training Programme

6.1. Monday, 29 June 2026

Principles of CRRT in Intensive Care

The first day of the programme began with the arrival and accommodation of the participants at the **University of Medicine Dormitory, G24, 1 Aurelianus Street, Timișoara**.

Subsequently, the participants travelled to the **Intensive Care Unit (ICU), 2nd Floor, Pius Brînzeu County Emergency Clinical Hospital, Timișoara**, where the first day of medical training took place.

Theoretical Session – Principles of CRRT in Intensive Care

The theoretical session focused on the principles of continuous renal replacement therapy (**CRRT**) in intensive care.

The general principles of continuous extracorporeal blood purification techniques and their role in the management of critically ill patients were addressed, with an emphasis on integrating CRRT into the treatment of patients with acute kidney injury and/or severe electrolyte, fluid, and acid-base disturbances.

Practical Activity – ICU Patient Rounds and CRRT Hands-on Workshop

During the second part of the day, participants took part in practical activities within the intensive care unit.

The activity included **clinical rounds involving ICU patients**, clinical discussions, and presentations of practical aspects related to the use of CRRT.

Thus, the first day provided participants with the opportunity to correlate theoretical knowledge with clinical situations encountered in intensive care practice.

6.2. Tuesday, 30 June 2026

Anticoagulation in CRRT – Heparin versus Citrate

The second day of the programme took place at the **Intensive Care Unit of Louis Țurcanu Emergency Clinical Hospital for Children, Timișoara**.

Theoretical Session – Anticoagulation in CRRT

The first part of the day was dedicated to anticoagulation during CRRT procedures, with a comparative analysis of the main strategies based on **heparin and citrate**.

The discussions focused on the principles underlying the use of the two strategies, their advantages and limitations, and the specific considerations involved in selecting the appropriate anticoagulation method according to the characteristics of the critically ill patient.

Practical Activity – ICU Patient Rounds and CRRT Hands-on Workshop

The practical component of the day included participation in clinical activities within the paediatric ICU and discussions regarding the management of critically ill paediatric patients.

An important element of this day was the participants' exposure to **paediatric cases**, which enabled them to compare the specific features of paediatric intensive care with the general principles of critically ill patient management.

The practical activities aimed to consolidate the knowledge presented during the theoretical session and to facilitate an understanding of how extracorporeal therapy principles are applied in specific clinical settings.

6.3. Wednesday, 1 July 2026

Advanced Life Support

The third day was dedicated to training in **Advanced Life Support (ALS)**.

The programme, which ran from 09:00 to 15:00, combined theoretical and practical components.

The educational content was based on the principles and structure of the international **European Resuscitation Council (ERC)** curriculum, without the issuance of an official ERC completion certificate.

The topics covered included the principles of early recognition of patient deterioration, patient assessment in critical situations, advanced resuscitation algorithms, and the principles of cardiac arrest management.

The practical component enabled participants to practise a structured approach to the critically ill patient and to discuss clinical scenarios relevant to intensive care and emergency medicine.

By integrating theoretical and practical components, the ALS module contributed to developing participants' ability to rapidly recognize life-threatening situations and apply standardized management algorithms.

6.4. Thursday, July 2, 2026

Therapeutic Plasma Exchange

The fourth day of the program was dedicated to **Therapeutic Plasma Exchange (TPE)**, with a particular focus on its clinical indications, technical principles, patient selection criteria, and role in the management of critically ill patients.

Theoretical Session

The theoretical component addressed the following key topics:

- the fundamental principles of **Therapeutic Plasma Exchange**;
- the main clinical indications for TPE;
- principles and criteria for patient selection;
- techniques and procedures employed in TPE;
- safety considerations and patient monitoring;
- the integration of TPE into the comprehensive management of critically ill patients.

Practical Activity

From 10:30 to 15:00, participants engaged in practical activities and **clinical rounds within the Intensive Care Unit (ICU)**. The sessions included the presentation and discussion of practical aspects related to the implementation of therapeutic plasma exchange in critically ill patients.

The practical component was designed to consolidate participants' understanding of the clinical indications and technical principles of TPE, while enhancing their ability to appropriately integrate this extracorporeal therapy into the multidisciplinary management of critically ill patients.

6.5. Friday, July 3, 2026

Advanced Extracorporeal Therapies in Intensive Care

The final day of the program focused on advanced extracorporeal support modalities currently employed in modern intensive care practice.

Theoretical Session

The theoretical component covered the following topics:

- **Adsorbers in the ICU**;
- the use of specialized filtration systems in patients with sepsis;
- the fundamental principles and clinical applications of **extracorporeal carbon dioxide removal ($ECCO_2R$)**;
- the principles and applications of **extracorporeal oxygenation**.

The session aimed to provide participants with a comprehensive understanding of the role of advanced extracorporeal therapies within the contemporary therapeutic framework of intensive care medicine.

Particular emphasis was placed on the clinical rationale, potential applications, and appropriate integration of these modalities into the overall management strategy for critically ill patients.

Practical Activity

The practical component consisted of a **hands-on workshop and clinical rounds within the Intensive Care Unit**, during which relevant clinical cases and practical aspects of advanced extracorporeal therapies were presented and discussed.

These activities provided participants with the opportunity to consolidate the theoretical knowledge acquired during the program and to relate the principles of advanced extracorporeal support to clinical scenarios encountered in intensive care practice.

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7. Training Methods and Educational Approaches

The training program employed a comprehensive, practice-oriented educational methodology integrating multiple instructional approaches:

- interactive theoretical sessions;
- structured presentation of pathophysiological and technical principles;
- clinical case-based discussions;
- clinical rounds within intensive care units;
- direct observation of patients receiving intensive care;
- practical demonstrations;
- hands-on workshops;
- simulation and practical training in the management of emergency situations;
- professional exchange of knowledge and clinical experience between instructors and participants;
- comparative discussions concerning different approaches to the management of critically ill patients.

The integration of these complementary educational methods facilitated the progressive transition from the acquisition of theoretical knowledge to its practical application in a clinical setting.

This multidisciplinary and practice-oriented approach contributed to the development and consolidation of participants' theoretical knowledge, practical competencies, clinical reasoning, and ability to integrate advanced extracorporeal therapies into the comprehensive management of critically ill patients.

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8. Competencies and Knowledge Developed

At the end of the programme, the participants had consolidated their knowledge and skills in the following areas:

Continuous Renal Replacement Therapy

- principles of CRRT;
- general indications;
- integration of CRRT into the management of critically ill patients;
- practical aspects of using extracorporeal circuits.

Anticoagulation of Extracorporeal Circuits

- principles of anticoagulation;
- characteristics of heparin use;
- characteristics of regional citrate anticoagulation;
- key considerations for selecting an anticoagulation strategy.

Therapeutic Plasma Exchange

- indications for TPE;
- technical principles;
- practical aspects of the therapy;
- integration of TPE into the management of critically ill patients.

Advanced Extracorporeal Therapies

- use of adsorbers;
- specialised filters for patients with sepsis;
- principles of $ECCO_2R$;
- principles of extracorporeal oxygenation.

Advanced Life Support

- structured assessment and management of the critically ill patient;
- recognition of patient deterioration;
- principles of advanced resuscitation;
- cardiac arrest management algorithms.

Paediatric Intensive Care

Participation in the activities carried out within the Intensive Care Unit of the *Louis Țurcanu Emergency Clinical Hospital for Children* enabled the participants to observe the specific aspects of managing critically ill paediatric patients and to gain exposure to clinical cases characteristic of this patient population.

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9. Cross-Border Dimension of the Activity

The training programme represented an activity with significant cross-border added value through the participation of a group of resident doctors from **Szeged, Hungary**, in a training programme organised in **Timișoara, Romania**.

Cooperation between medical professionals from the two regions contributes to the development of a common approach to the management of critically ill patients and the use of modern intensive care technologies.

Through their participation in clinical and educational activities at medical facilities in Timișoara, the resident doctors from Szeged had the opportunity to observe the organisation of intensive care activities, discuss clinical cases, and exchange experience with Romanian physicians involved in the programme.

At the same time, the professional interaction between the two groups created a framework for the **mutual transfer of knowledge and best practices**, contributing to the strengthening of professional relations between the medical communities in the Timiș – Csongrád-Csanád cross-border area.

The cross-border nature of the activity was not limited to the participation of trainees from another country, but was supported by direct interaction between professionals, exposure to clinical practices and medical technologies, and the development of professional relationships that may provide a basis for future joint activities.

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10. Results of the Activity

The training programme achieved the following main results:

- **6 resident doctors from Szeged, Hungary**, participated in the programme;
- the programme was conducted over **5 consecutive days**;
- two medical facilities in Timișoara were involved;
- **8 instructors/medical trainers** from the two medical facilities were involved;
- the programme combined theoretical and practical activities;
- modern extracorporeal therapy techniques were addressed;
- participants were exposed to both adult intensive care practice and the specific aspects of paediatric intensive care;
- an Advanced Life Support module based on the principles of the international ERC curriculum was included;
- participants took part in **ICU patient rounds and hands-on workshops**;
- the programme facilitated the exchange of experience between Romanian and Hungarian medical professionals.

11. Impact of the Programme

The immediate impact of the activity consists in the development and strengthening of the professional competencies of the six participating resident physicians in areas relevant to the management of critically ill patients.

Exposure to modern **extracorporeal therapies** and to different approaches to the management of critically ill patients may contribute, in the medium and long term, to enhancing the participants' professional competencies and to disseminating the knowledge acquired within their respective **multidisciplinary clinical teams**.

At the same time, the activity contributed to strengthening **cross-border medical cooperation between Timiș and Csongrád-Csanád**, by creating a concrete framework for the exchange of clinical experience, knowledge, and best practices.

Due to its practical nature and its focus on modern **critical care and extracorporeal support techniques**, the activity is relevant to the overall objective of the project of strengthening the capacity of **healthcare services** in the cross-border area.

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12. General Evaluation of the Activity

The training programme conducted from 29 June to 3 July 2026 provided the participants with a comprehensive educational experience, combining theoretical training with direct exposure to **clinical practice in critical care**.

The programme was structured into successive thematic modules, allowing for a progressive approach to key areas of **critical care medicine**, starting with the principles of **Continuous Renal Replacement Therapy (CRRT)** and **anticoagulation of extracorporeal circuits**, and continuing with **Therapeutic Plasma Exchange (TPE)**, **Advanced Life Support (ALS)**, and advanced **extracorporeal therapies**.

The inclusion of a dedicated training day within the **Pediatric Intensive Care Unit (PICU)** added a specific and valuable component to the training programme, providing participants with the opportunity to gain direct insight into the particularities of the management and care of critically ill paediatric patients.

The active involvement of medical trainers from both partner hospitals, together with the participation of the six resident physicians from Szeged, contributed to the creation of an effective learning environment and facilitated the transfer of knowledge, the exchange of professional experience, and the sharing of good clinical practices.

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13. Conclusions

The training programme implemented during the period **29 June – 3 July 2026**, within the framework of the **ROHU00472 – ECBC–PEIC** project, represented a relevant professional capacity-building activity with a significant cross-border cooperation component.

The participation of the six resident physicians from Szeged in the training activities organised in Timișoara contributed to enhancing their knowledge and professional competencies in the field of critical patient management, while also providing exposure to a range of modern intensive care techniques and extracorporeal life support modalities.

The combination of theoretical training sessions, practical activities, visits to Intensive Care Units, clinical case discussions, and hands-on workshops provided a comprehensive learning framework and enabled participants to strengthen the link between theoretical knowledge and its practical application in a clinical setting.

The training programme also contributed to strengthening professional cooperation and institutional links between healthcare professionals from Timișoara and Szeged. In this context, the activities

provided an appropriate framework for the exchange of expertise, experience, and good practices in the fields of intensive care, emergency medicine, and the management of critically ill patients.

Overall, the training activity supported the achievement of the objectives of the project **"Enhanced cross-border capabilities for primary, emergency and intensive care in Timis – Csongrád-Csanád cooperation area"**, particularly with regard to professional capacity building, knowledge and experience sharing, and the strengthening of sustainable cross-border cooperation between healthcare professionals and institutions in the **Timiș – Csongrád-Csanád** cooperation area.

The activity may therefore be considered a relevant contribution to the development of cross-border healthcare capacities and to the consolidation of professional cooperation within the framework of the **ROHU00472 – ECBC–PEIC** project.

Local Project Manager,

Andreea Luciana RAȚĂ

Gaál-Lajtos Kinga

Feladó: Andreea Rata <rataandreealuciana@gmail.com>
Küldve: péntek 2026. június 12 8:37
Címzett: Gaál-Lajtos Kinga
Tárgy: Fwd: Practice Stage – Practical Information

Dear Kinga
I think Dr Bedreag already sent the info for the practical stage.
I fwd the message again

Thank you
Sent from my iPhone

Begin forwarded message:

> **From:** Ovidiu Bedreag <ovidiu.bedreag@yahoo.com>
> **Date:** 5 June 2026 at 17:09:53 CEST
> **To:** Gaál-Lajtos Kinga <gaal-lajtos.kinga@szte.hu>, Rata Andreea <rataandreealuciana@gmail.com>
> **Subject: Re: Practice Stage – Practical Information**
> **Reply-To:** Ovidiu Bedreag <ovidiu.bedreag@yahoo.com>
>
> Dear Kinga,
>
> Please find in the next rows the details regarding the practice stage in Clinical County Hospital Timisoara 29th of June - 3rd of July 2026.
>
> The program is of interest and is intended for resident physicians in the specialties of anesthesia and intensive care, as well as those in emergency medicine or pediatrics.
>
> Accommodation will be provided at University Hostel no. G24, Aurelianus street no. 1, Timisoara.
> Contact person (hostel administrator) - Mr. Daniel Hum - mobile phone number 0040728049623.
> This hostel is part of Timisoara university campus, so parking near by can be difficult. Suggested parking - near Clinical County Hospital Timisoara or near old (actually demolished) "Dan Paltinisanu" stadium.
> Walking distance between G24 Hostel - Clinical County Hospital - 12-15 minutes.
> In hospital lunch will be provided every day (Monday - Friday) at noon.
>
> Doctors may bring their own lab coats and personal hospital equipment, or they will be provided with disposable equipment. We recommend that physicians bring their own hospital footwear.
>
> Daily schedule:
>
> **Monday 29th of June 2026:**
>
> 9.00-10.00 (Romanian time) - accommodation at University of Medicine Hostel no. G24, Aurelianus street no.1.

11.00 - Meeting point : Intensive Care Unit, 2nd floor, Clinical County Hospital Timisoara, Liviu Rebreanu street no. 156
11.00 - 12.00 - Theoretical session - Principles of CRRT in Intensive Care
12.00 - 15.00 - Practical session - ICU patient rounds. CRRT in intensive care (hands-on workshop) part 1

Tuesday 30th of June 2026
Meeting point : Intensive Care Unit, 2nd floor, Clinical County Hospital Timisoara, Liviu Rebreanu street no. 156
09.00 -10.30 - Theoretical session - Anticoagulation in CRRT (heparine vs. citrate)
10.30-15.00 - Practical session: ICU patient rounds. CRRT in intensive care (hands-on workshop) part 2

Wendesday 1st of July
Meeting point : Intensive Care Unit, 2nd floor, Clinical County Hospital Timisoara, Liviu Rebreanu street no. 156
09.00-15.00 Advanced Life Support - practical and theoretical course

Thursday 2nd of July
Meeting point : Intensive Care Unit, 2nd floor, Clinical County Hospital Timisoara, Liviu Rebreanu street no. 156
09.00-10.30 Theoretical session - Therapeutic Plasma Exchange. Indications. Techniques
10.30 - 15.00 Practical session - ICU patient rounds. Therapeutic plasma Exchange hands on workshop

Friday 3rd of July
Meeting point : Intensive Care Unit, 2nd floor, Clinical County Hospital Timisoara, Liviu Rebreanu street no. 156
09.00 - 10.30 Theoretical session - Adsorbers in ICU. Special filters for septic patients. Extracorporeal CO2 removal. Extracorporeal oxygenation.
10.30 - 15.00 Practical session. Hands-on workshop. ICU patient rounds.

If there are any other questions, please feel free to ask.
Keep in touch!

Ovidiu

Ovidiu Bedreag, MD, PhD, **Assoc. prof.**

Anesthesiology and Intensive Care Department, Clinical County Hospital Timisoara

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On Wednesday, June 3, 2026 at 11:52:14 AM GMT+3, Gaál-Lajtos Kinga <gaal-lajtos.kinga@szte.hu> wrote:

Dear Professor Bedreag,

I hope this message finds you well.

Thank you for confirming that the Practice Stage can take place between June 29 and July 3, 2026.

As we are now moving forward with the organizational arrangements, we would be grateful if you could provide us with some additional information regarding the programme. In particular, we would appreciate details on the planned schedule, daily activities, expected arrival and departure times, accommodation arrangements (if applicable), and any other practical information that would be useful for the participants.

We currently have six colleagues planning to participate, and having these details will help us finalize the necessary preparations and provide accurate information to the participants.

Thank you very much for your support and cooperation. We look forward to hearing from you.

Kind regards,
Kinga

Gaál-Lajtos Kinga
projektmenedzser

Szegedi Tudományegyetem
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Kérem, óvja a természetet, ha nem szükséges, ne nyomtassa ki ezt az e-mailt! Before printing, think about ENVIRONMENTAL responsibility.
Felhívás a levél bizalmas jellegére: Ez az elektronikus levél és annak bármely csatolt anyaga csak a címzett személy(ek)nek vagy jogi személy(ek)nek szól, minősített, bizalmas vagy más, nem nyilvánosságra hozható információt tartalmazhat. A levél tartalmát részben vagy egészben harmadik személy részére megismerhetővé tenni, a levelet jogosulatlanul felhasználni, másolni, publikálni, terjeszteni, vagy a tartalmával egyéb módon visszaélni szigorúan tilos. Ha Ön ezt az elektronikus levelet tévedésből kapta meg, szíveskedjék erről a feladót a levél visszaküldésével azonnal értesíteni, majd a levelet saját postafiókjából véglegesen törölni!

TIMIȘOARA - CLINICAL COUNTY HOSPITAL - LIVIU REBREANU STREET NO. 30

29 JUN 2026

Interreg Co-funded by the European Union

Romania - Hungary

Conference – Extracorporeal Life Support in Critical Care - *Advancing Organ Support Beyond Conventional Limits* -

Project - "Enhanced cross-border capabilities for primary, emergency and intensive care in Timis – Csongrád-Csanád cooperation area"

ROHU00472

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Signatories expressly and unequivocally give their consent for the processing of their personal data for the purpose of participating in this event. The data will be kept during the implementation of the Interreg VI-A Romania-Hungary Programme, as well as for 3 years from the date of submission of the final accounts. Personal data may be transferred to third parties, for the fulfilment of a legal obligation. By attending this event, signatories freely and expressly provide their agreement to be photographed, filmed or recorded. They also expressly agree that the above-mentioned photos and video or sound recordings may be used, reproduced, distributed and communicated royalty-free to the public, on websites or other information tools, such as social media or electronic or printed publications, to illustrate the event itself, for further dissemination/reporting.

TIMISOARA – PEDIATRIC EMERGENCY HOSPITAL
– CLINICAL COUNTY HOSPITAL TIMISOARA

30 JUN 2026

Interreg Co-funded by the European Union

Romania - Hungary

Conference – Extracorporeal Life Support in Critical Care - *Advancing Organ Support Beyond Conventional Limits* -

Project - "Enhanced cross-border capabilities for primary, emergency and intensive care in Timis – Csongrád-Csanád cooperation area"

ROHU00472

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CLINICAL COUNTY HOSPITAL TIMIȘOARA
01 JUL 2026

Conference – Extracorporeal Life Support in Critical Care - *Advancing Organ Support Beyond Conventional Limits* -

Project - "Enhanced cross-border capabilities for primary, emergency and intensive care in Timis – Csongrád-Csanád cooperation area"

ROHU00472

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02 JUL 2026

CLINICA COUNTY HOSPITAL TIMISOARA

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Interreg Co-funded by the European Union

Romania - Hungary

Conference – Extracorporeal Life Support in Critical Care - *Advancing Organ Support Beyond Conventional Limits* -

Project - "Enhanced cross-border capabilities for primary, emergency and intensive care in Timis – Csongrád-Csanád cooperation area"

ROHU00472

DATA: **Locatie:** **Timișoara, Timiș County**

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03 JULY 2024

CLINICAL COUNTY HOSPITAL TIMIȘOARA

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Conference – Extracorporeal Life Support in Critical Care - *Advancing Organ Support Beyond Conventional Limits* -

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DATA: **Locatie:** **Timișoara, Timiș County**

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Report on the Exchange Program in Timișoara

Project: ECBC-PEIC (Interreg ROHU-472)

Date of Exchange: June 29 – July 3, 2026

Thanks to the Interreg ROHU program, I had the privilege of spending a highly rewarding week in Timișoara to exchange experiences regarding intensive care practices.

On Monday, we arrived at the 'Pius Brînzeu' Emergency Clinical County Hospital in time for morning rounds. We received a warm and gracious welcome from Prof. Bedreag, who expertly guided us throughout the exchange program. It was impressive to see the state-of-the-art equipment in the Intensive Care Unit (ICU), and the diverse patient pathology made our time there highly educational. Following the rounds, we observed the initiation of continuous renal replacement therapy (CRRT). Unfortunately, the patient became hemodynamically unstable during the procedure, necessitating Advanced Life Support (ALS). This unexpected event provided us with a valuable opportunity to practice our resuscitation skills and observe the seamless teamwork of the local ICU doctors and nurses.

Given our background in pediatrics, Prof. Bedreag kindly offered us the opportunity to spend two days in the 'Louis Țurcanu' Emergency Clinical Hospital for Children's Intensive Care Units, which we gratefully accepted. We divided into two groups and spent the next two days rotating between the Surgical ICU and the Internal Medical ICU. On the first day, I participated in the work of the ENT surgical team, assisting the attending anesthesiologists. I am grateful for the chance to practice my intubation skills and to gain important clinical insights into the management of post-extubation laryngospasm. On the second day, I rotated to the Internal Medical ICU. Following a brief guided tour of the unit, we observed the cardiology team in the outpatient setting. A particularly fascinating case for me was a two-year-old patient diagnosed with left ventricular non-compaction cardiomyopathy.

On Thursday, we returned to the 'Pius Brînzeu' Emergency Clinical County Hospital ICU. Following morning rounds, we attended a workshop focused on preventing secondary brain injuries in neuro-ICU patients. It was an excellent session where we discussed complex physiological concepts through case-based scenarios.

On the final day, we concluded the week with two highly practical workshops that are easily translatable to our daily practice. The first workshop covered fundamental physiological concepts and the differentiation of various types of shock, aligned with the latest medical

literature. We had the privilege of seeing theory put into immediate practice when a female patient was admitted to the ICU that morning with decompensated shock of unknown origin. It was highly instructive to go through the diagnostic workup of her case using the framework we had just learned. The final workshop centered on Arterial Blood Gas (ABG) interpretation, an essential tool in our daily clinical work. The concept and practical application of the Stewart approach to acid-base chemistry was a novel method of interpretation for me, but the practical examples made its core principles much easier to grasp.

In conclusion, I would like to express my deepest gratitude to the ECBC-PEIC program and our hosts for this exceptional opportunity. I gained not only invaluable practical experience in ICU patient management but also fond memories of a city that continues to have a profound cultural influence on the region. Furthermore, I am thankful for the quality time spent with my colleagues from the Szeged Children's Clinic; getting to know my peers better will undoubtedly foster smoother collaboration in our daily clinical practice back home.

Benjamin Hites, MD

Report on the ROHU Cross-Border Exchange Programme

As part of the ROHU cross-border resident exchange programme, we participated in a five-day professional visit to the Timis County Emergency Clinical Hospital . The programme provided an excellent opportunity to observe clinical practice in a neighbouring healthcare system, strengthen cross-border professional collaboration, and broaden our experience in intensive care medicine.

Upon our arrival, we were warmly welcomed by the Head of the Department, who introduced us to the intensive care unit and guided us through the daily ward round. During the round, the medical team presented the clinical cases, discussed the patients' conditions, and explained their diagnostic and therapeutic approaches. Later that day, the team planned to demonstrate the initiation of Continuous Renal Replacement Therapy (CRRT). During the preparation of the procedure, however, the patient's condition deteriorated rapidly, resulting in cardiac arrest. We had the opportunity to observe and assist the intensive care team during the resuscitation attempt. Although the outcome was unfortunately unsuccessful, witnessing the coordinated management of such a critical emergency was an important and memorable educational experience.

After learning that we were pediatric residents, our hosts kindly arranged for us to spend the following two days at the Louis Turcanu Emergency Hospital for Children in Timișoara. We visited both the Paediatric Intensive Care Unit and the Department of Paediatric Anaesthesiology and Perioperative Care.

During our time in the Paediatric Intensive Care Unit, we observed the management of several complex cases, including a child with meningococcal sepsis complicated by disseminated intravascular coagulation (DIC) and a patient with Edwards syndrome. These rare clinical cases provided valuable learning opportunities. The physicians were very welcoming, took the time to explain the patients' conditions and management strategies, and encouraged discussion throughout our visit.

The following day was dedicated to paediatric anaesthesiology and perioperative care. We observed several surgical procedures and had the opportunity to witness endotracheal intubation using video laryngoscopy. This experience allowed us to gain practical insight into modern airway management techniques and perioperative care in paediatric patients.

On the fourth day, we returned to the adult intensive care unit, where we attended a lecture delivered by a neurointensive care specialist on the prevention of hypoxic brain injury. The presentation was highly educational and provided an excellent overview of current concepts and evidence-based practice in neurocritical care.

Our final day included two additional educational sessions delivered by intensive care specialists. The first lecture focused on the interpretation and clinical management of acid-base imbalances in critically ill patients, while the second reviewed the different types of shock, their pathophysiology, and current management principles. Both sessions complemented the practical experience gained during the week and provided valuable opportunities for professional discussion.

Overall, the ROHU exchange programme proved to be a valuable professional experience. In addition to expanding our clinical knowledge in both adult and paediatric intensive care, the programme strengthened professional relationships between the participating institutions and promoted the exchange of knowledge and good clinical practice across the Hungarian–Romanian border. We are grateful to our Romanian colleagues for their hospitality, openness, and dedication to teaching, which made this exchange both educational and professionally rewarding.

Dr. Kele Anna

Report on the Exchange Program in Timişoara

Project: ECBC-PEIC (Interreg ROHU-472)
Exchange Period: 29 June – 3 July 2026

Thanks to the Interreg ROHU programme, I had the privilege of spending five days in Timişoara, Pius Brînzeu County Emergency Clinical Hospital with my colleagues, participating in a clinical exchange programme. The primary aim of the visit was to expand our clinical knowledge, gain practical experience, and exchange perspectives with our romanian colleagues.

On the first day, we were greeted by Prof. Dr. Bedreag, who introduced us to the Intensive Care Unit (ICU) of the Pius Brînzeu County Emergency Clinical Hospital. During the morning round, several educational clinical cases were presented and discussed in detail. This was followed by an introduction to Continuous Renal Replacement Therapy (CRRT), beginning with the theoretical principles before progressing to practical bedside application. I was particularly impressed by the organisation of the ICU, where each patient had an individual monitor, medication trolley, and dedicated computer workstation providing electronic access to medication records, and laboratory results. Shortly after we had become familiar with the CRRT, a patient developed a sudden cardiac arrhythmia, which rapidly progressed to an Advanced Life Support (ALS) resuscitation.

On the second day, thanks to the assistance of Prof. Dr. Bedreag, I had a chance to spend the day in the Paediatric Intensive Care Unit of the Louis Ţurcanu Children's Emergency Hospital. In the operating room, I observed several surgical procedures, the most memorable experience was the excision of an ovarian teratoma from an 11-year-old girl. I discussed the principles of postoperative pain management with the members of the multidisciplinary team.

The third day was also spent at the children's hospital. During the morning rounds, I saw several complex cases, including a child with septic meningitis, a patient with Edwards syndrome, and a child with a rare immunological disorder. Later, I visited the paediatric cardiology outpatient department, where I learned the fundamentals of paediatric echocardiography.

The final two days consisted of a series of highly informative lectures managed by experienced specialists. The topics included the interaction between the brain and the lungs during mechanical ventilation, underlying the pathophysiological aspects. We were also introduced to an alternative approach to arterial blood gas (ABG) interpretation, providing a new perspective on clinical decision-making. Furthermore, concepts in the diagnosis and management of shock were presented with the latest evidence-based recommendations and international guidelines.

Beyond the clinical programme, we also had the opportunity to explore the historic centre of Timişoara with it's rich cultural heritage.

In summary, this exchange programme proved to be an exceptionally rewarding experience. I would like to express my gratitude to the Interreg ROHU programme for making this exchange possible, to Prof. Dr. Bedreag for his support and mentorship, and to all the physicians, nurses, and healthcare professionals who welcomed us and shared their experience and knowledge throughout our stay. I will remember this experience as one of the most valuable educational opportunities of my medical training.

Máté Fodor, MD

Report on the Exchange Program in Timişoara

As part of our exchange program, we spent five days in Timişoara, where we had the opportunity to gain valuable clinical experience in both adult and pediatric intensive care units (ICUs). We spent three days in the adult ICU and two days in the pediatric ICU.

During our time in the pediatric ICU, we visited both the surgical and medical sections. In the surgical unit, we were given the opportunity to enter the operating theatre, where I observed an endotracheal intubation and a clavicle surgery. It was a unique and memorable experience to see these procedures performed in a real clinical setting. In the medical section of the pediatric ICU, the team presented an interesting case of meningococcal infection. The physicians explained the patient's condition, diagnosis, and treatment in detail, which helped us better understand the management of this serious disease.

For every patient we encountered, the medical staff held case discussions, explaining the patient's history, clinical findings, treatment plan, and prognosis. These discussions were highly educational and allowed us to connect theoretical knowledge with clinical practice. I learned a great deal from these daily case presentations.

The adult ICU also provided many valuable learning opportunities. One of the most memorable moments of the exchange was witnessing my first cardiopulmonary resuscitation (CPR). Although it was an intense experience, it gave me important insight into emergency teamwork and the practical management of critically ill patients.

In addition to the clinical activities, we attended several theoretical teaching sessions covering topics related to intensive care medicine. These lectures complemented our practical experience and helped deepen our understanding of patient management in the ICU.

Overall, the exchange program in Timişoara was an excellent educational experience. It allowed me to observe a wide range of clinical situations, improve my medical knowledge, and gain a better understanding of intensive care medicine. I am grateful for the opportunity to learn from the healthcare professionals there, and I believe this experience will be very valuable for my future medical career.

REBEKA NEMETH

Exchange Program Report
Timișoara

Project: ECBC-PEIC (Interreg ROHU-472)
Date of Exchange: June 29 – July 3, 2026

Thanks to the Interreg ROHU program, five of my classmates and I had the opportunity to spend one week of clinical practice in Timișoara at the "Pius Brînzeu" Emergency Clinical County Hospital.

On our first day, Monday, we visited the Intensive Care Unit. After a warm welcome from Professor Bredreag, we joined the morning ward round. Because of the language barrier, the doctors kindly presented all the cases in English. This gave us the chance to learn about adult intensive care, which is not very familiar to us as future pediatricians.

After the ward round, we observed the practical use of CRRT (Continuous Renal Replacement Therapy). We had already learned the theory about this treatment during the conference held in Timișoara on March 27. During the procedure, the patient's condition suddenly became critical and resuscitation was needed. The doctors also involved us in the CPR, which was a very valuable experience because for many of us it was the first time seeing such a situation.

The next two days were spent at the **"Louis Țurcanu" Emergency Clinical Hospital**, where we worked in two groups. On Tuesday, I joined the anesthesiology team in the surgery department and observed several operations. The first patient was a three-week-old baby with neuroblastoma who underwent an adrenalectomy. The second surgery was adhesiolysis caused by Hirschsprung disease. The last operation, which I found the most interesting, was the removal of a 10 cm ovarian teratoma from an 11-year-old child.

On Wednesday, we spent the day in the Pediatric Intensive Care Unit and the Cardiology Department. After the morning ward round, we discussed some interesting clinical cases in more detail. The most memorable case for me was a patient with sepsis caused by meningococcal infection. Cases like this remind us how important vaccination is.

On Thursday, we returned to the Intensive Care Unit of the "Pius Brînzeu" Emergency Clinical County Hospital. After the ward round, we attended a workshop about the intensive care management of patients with neurotrauma.

On Friday, our last day, we joined the morning ward round once again. After that, we attended two lectures. The first one was about shock, and the second one was about electrolyte disorders, especially acid-base balance disorders. Both lectures were very practical and useful, thanks to the experience and excellent teaching of the presenters.

Finally, I would like to express my gratitude for having the chance to spend this week at the "Pius Brînzeu" Emergency Clinical County Hospital. Thanks to the Interreg ROHU program,

I had the opportunity to learn about the healthcare system of another country. I believe that the experience I gained during this exchange program will help me become a more knowledgeable and open-minded specialist in the future.

Réka Erdős, MD

Exchange Program in Timisoara

Date of Program: June 29- July 3, 2026

In Timisoara, we spent a highly rewarding five days as part of the Interreg ROHU program. The core objective of this one-week program was to expand clinical knowledge, share best practices, and observe advanced medical protocols in intensive care therapy.

On Monday, the program commenced with our participation in the official ICU clinical rounds in 'Pius Brinzeu' Emergency Clinical County Hospital. This allowed us to understand the complex cases currently managed by the department and observe the medical team's decision-making process. Following the rounds, we transitioned to a dedicated, hands-on training session focused on CRRT protocols, machine setup, and fluid management for critically ill patients. During the preparation for the CRRT procedure, the assigned patient unfortunately suffered a sudden cardiac arrest. This critical situation required immediate emergency intervention. The medical team responded instantly, and we were able to actively assist in the resuscitation process, applying our Cardiopulmonary Resuscitation (CPR) skills in a real-life environment.

The second and third days of the program were spent at the 'Louis Țurcanu' Emergency Clinical Hospital for Children, focusing entirely on specialized pediatric intensive care. To maximize our clinical exposure, our team was divided into two smaller groups. We rotated between the Surgical Pediatric ICU and the Internal Medical Pediatric ICU. A highly valuable part of the rotation took place in the pediatric operating theatre. We focused on advanced airway management, in which the use of videolaryngoscopy in pediatric patients proved particularly instructive. We also had comprehensive professional discussions regarding local and international intubation protocols for pediatric airways. During our time in the pediatric units, we encountered two exceptionally rare and fascinating clinical cases. We observed the intensive management of a child with meningococcaemia and septic shock and the challenges and supportive care of a patient with Edwards syndrome.

For the final two days of the program, we returned to the 'Pius Brînzeu' Emergency Clinical County Hospital to attend high-level clinical lectures and interactive training sessions. On Thursday, the education focused on advanced neuromonitoring techniques in the ICU and evidence-based strategies to prevent secondary brain injury in neurocritical patients (e.g., managing intracranial pressure, cerebral perfusion pressure, and systemic parameters). The final day was dedicated to the pathophysiology and hemodynamic stabilization of different types of shock (cardiogenic, hypovolemic, distributive, and obstructive). This was combined with an intensive practical session on arterial blood gas (ABG) analysis, focusing on complex acid-base imbalances.

The Interreg ROHU exchange program in Timișoara was highly successful. It delivered dense, actionable medical insights across different patient demographics that will directly benefit my daily clinical practice. The pediatric rotation significantly broadened my clinical perspective through hands-on insights into advanced airway tools and the management of high-acuity, rare pediatric pathologies. Comparing airway management protocols and the management of rare diseases highlighted the value of cross-border medical cooperation.

VIKTORIA NAGY