

# Ethico-legal aspects of neurosurgery in the 21<sup>st</sup> century: Challenges and opportunities

## Pre-congress course



Emergency center, University  
Clinical Center of Vojvodina,  
Novi Sad, Serbia

October 23, 2025



Host: Clinic for Neurosurgery, University Clinical Center of Vojvodina  
Joint venture with the



THE EUROPEAN ASSOCIATION  
OF NEUROSURGICAL SOCIETIES

EANS  
Ethico-Legal Committee



Turkish  
Neurosurgical  
Society



Southeast Europe  
Neurosurgical Society  
- SeENS





**Thursday · October 23<sup>rd</sup> · 2025**

**Emergency center, University Clinical Center of Vojvodina**

## **Neurocritical care and treatment of patients – possibilities and perspectives – continuous ICP monitoring and active fluid exchange**

	<b>PRE-CONGRESS COURSE WITH HANDS-ON TRAINING</b> <b>TARGET AUDIENCE:</b> Neurosurgeons, neurologists, intensivists and nurses in intensive care units <b>Number of participants:</b> 50 <b>Moderator:</b> Djula Djilvesi
07.50-08.00	<b>Welcome address</b> Lukas Rasulic
08.00-08.30	<b>Historic shortcomings of legacy drainage technology</b> Djula Djilvesi
08.30-09.00	<b>Multidisciplinary approaches in the treatment of neurocritical patients</b> Jagos Golubovic
09.00-09.30	<b>Clinical values of dual lumen catheters</b> Jovan Grujic
09.30-10.00	<b>The word of a radiologist - who, when, why?</b> Milos Lucic
10.00-10.30	<b>Discussion</b>
10.30-11.00	<b>Coffee break</b>
11.00-11.30	<b>Active fluid exchange system</b> Ana Zecevic
11.30-12.00	<b>Case study</b> Behnam Rezai Jahromi
12.00-12.30	<b>Radiological presentation of cases before and after treatment</b> Milos Lucic
12.30-13.00	<b>Discussion</b>
13.00-14.00	<b>Lunch and coffee break</b>
14.00-15.30	<b>Workshop and hands - on for doctors and nurses</b>
15.30-16.00	<b>Quiz and exit test</b>
16.00	<b>Closing</b>



## Learning outcomes:

During and after the course, participants will be able to:

1. Recognize the historical shortcomings of legacy drainage technology and its impact on current practices in neurocritical care.
2. Assess the importance of multidisciplinary approaches in the treatment of neurocritical patients
3. Identify the roles of different healthcare professionals involved in the treatment.
4. Evaluate the clinical values and practical applications of dual lumen catheters in continuous ICP monitoring and fluid management.
5. Articulate the rationale behind radiology's involvement in neurocritical care, including indications for imaging, timing, and specific imaging modalities used.
6. Grasp the concepts and operational procedures of active fluid exchange systems in managing neurocritical patients.
7. Analyze real-life case studies to understand the application of theoretical knowledge in clinical scenarios and the outcomes of various treatment strategies.
8. Critically evaluate radiological presentations of cases before and after treatment, recognizing the significance of imaging in treatment planning and patient outcomes.
9. Gain hands-on experience and practical skills in monitoring and treating neurocritical care patients through the workshop session.
10. Engage in discussions to share insights, ask questions, and enhance understanding of neurocritical care concepts and practices, fostering a collaborative learning environment.
11. Identify potential risks and complications associated with neurocritical care interventions, including drainage technology and fluid management systems
12. Integrate the latest research findings and clinical guidelines into practice to enhance the treatment and monitoring of neurocritical patients.
13. Develop strategies for providing patient-centered care in neurocritical settings, considering the unique needs and perspectives of both patients and their families.
14. Explore advancements in technology that impact neurocritical care
15. Examine and classify common complications associated with neurocritical care procedures, including their clinical manifestations and management.
16. Gain a solid understanding of the pathophysiology underlying chronic SDH, IVH, IPH with ventricular involvement, SAH, ventriculitis, cerebral abscess, and hydrocephalus, identifying the clinical implications for treatment.

**Ethico-legal aspects of neurosurgery in the 21<sup>st</sup> century:  
Challenges and opportunities**



17. Develop the ability to recognize clinical indications for the use of minimally invasive techniques in treating the aforementioned neurosurgical conditions.
18. Understand the principles and applications of automated irrigation, controlled drainage, and continuous ICP monitoring as part of a unified treatment solution.
19. Analyze and interpret significant clinical trials and studies demonstrating the efficacy, safety, and benefits of minimally invasive approaches compared to traditional surgical techniques.
20. Evaluate the impact of minimally invasive techniques on patient outcomes, including reduction in recurrence rates and potential to eliminate the need for surgical evacuation.
21. Acquire expertise in patient selection for minimally invasive treatments, considering factors such as age, health status, and type of hemorrhage or abscess.
22. Understand the long-term management and follow-up strategies necessary for patients undergoing treatment with minimally invasive techniques, including monitoring and adjusting therapeutic approaches.
23. Learn how to effectively integrate minimally invasive techniques into existing neurosurgical practice
24. Participate in practical training using demo devices and real-world scenarios to become familiar with procedural steps and the use of automated irrigation and controlled drainage systems.
25. Enhance clinical decision-making skills in a multidisciplinary context
26. Engage in quality improvement initiatives aimed at evaluating and enhancing the implementation of minimally invasive techniques in clinical practice to improve overall patient care.