

ESO SUMMER SCHOOL

September 16-20, 2024 | Vilnius, Lithuania



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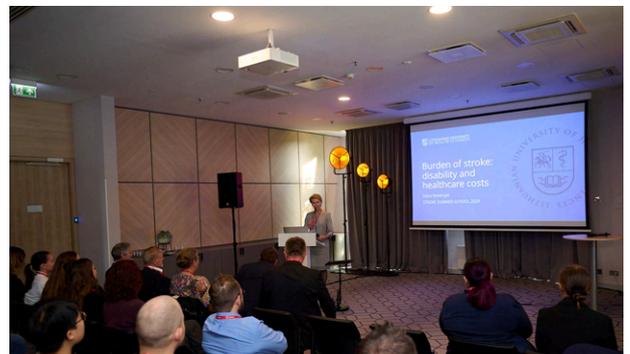
Norway

Programme

Day 1

Prof. Daiva Rastenytė opened the scientific program by discussing the global burden of stroke, focusing on the high rates of disability and the economic strain it imposes on healthcare systems. Later Prof. Hanne Christensen presented the Stroke Action Plan for Europe (SAP-E), providing an overview of the strategic goals for reducing stroke incidence, improving care, and addressing post-stroke rehabilitation through coordinated policies across Europe. Subsequently, Assoc. Prof. Alensandras Vilionskis offered insights into Lithuania's stroke care systems, examining what has worked and identifying areas for improvement based on outcomes and patient management data. This presentation was followed by Assoc. Prof. Michael Mazya's review of protocols for transporting stroke patients, emphasizing the importance of rapid response times and specialized care to optimize patient outcomes. Finally, Rytis Masiliūnas focused on the challenges of monitoring performance in stroke care, discussing metrics and systems for evaluating and improving stroke care delivery.

The afternoon session started by a talk by Prof. Patrik Michel who emphasized the role of timely and appropriate brain imaging in stroke diagnosis, discussing which imaging modalities should be used in different clinical scenarios. Subsequently Naglis Ramanauskas delivered a remote presentation on the potential of artificial intelligence in stroke imaging, raising the question of whether AI could replace human expertise in clinical neuroradiology. The session covered current AI advancements and their limitations. The treatment options for patent foramen ovale, a condition often linked with cryptogenic stroke, were discussed by Assoc. Prof. Kristina Ryliškienė, and included the circumstances under which intervention is most beneficial. It was followed by Prof. Janika Kōrv, who focused on the unique challenges of diagnosing stroke in younger populations, including differential diagnoses and the role of genetic and lifestyle factors. The session continued by Prof. Vaidas Matijošaitis, who talked about hemispatial neglect, a common post-stroke cognitive impairment, with emphasis on diagnosis and rehabilitation strategies to improve patient outcomes. The final presentation of the day was once again by Prof. Patrik Michel, who concluded the day with an exploration of conditions that can mimic stroke, highlighting the need for accurate differential diagnosis to avoid unnecessary treatments.



Day 2

Day 2 started with a session on Reperfusion Therapy for Acute Ischemic Stroke. Firstly, Prof. Georgios Tsivgoulis reviewed lessons learned from large trials and registries on the use of intravenous thrombolysis in acute ischemic stroke, focusing on best practices and common challenges. Next Assoc. Prof. Michael Mazya addressed scenarios where stroke treatment deviates from established protocols and explored how individualized patient care can still lead to successful outcomes. Finally, before a coffee break Eglė Audronytė talked about the risks and benefits of thrombolysis in dementia patients, considering the clinical complexities and ethical implications. After the coffee break Givi Lengvenis provided a comprehensive overview of the latest findings from clinical trials in endovascular treatment, with insights into patient selection and procedural improvements. Subsequently Prof. Adam Kobayashi examined causes of clinical deterioration following mechanical thrombectomy and proposed strategies for prevention and management. Finally, the final morning session by Prof. Antanas Vaitkus focused on effective management within stroke units, emphasizing a multidisciplinary approach to enhance patient recovery.

The afternoon session on Anticoagulation and Stroke Management was introduced by Prof. Ales Tomek, who provided a comparison of traditional and newer anticoagulants in post-stroke care, with a discussion on how to optimize treatment in different patient populations. It was followed by Prof. Alexander Tsiskaridze, who talked about the management of anticoagulant-related hemorrhages was discussed, with a focus on balancing anticoagulation with the risk of stroke recurrence. Finally, Prof. Natan Bornstein introduced the latest guidelines on the diagnosis and management of cerebral venous thrombosis, emphasizing early detection and treatment.



Day 3

The first part of Day 3 was dedicated to the ESO Symposium on Stroke Management. The day began with an exploration of the systemic challenges in stroke care, particularly the disparities in stroke treatment and prevention across different healthcare systems in Europe. Prof. Francesca Romana Pezzella highlighted the gaps in care delivery and the need for policy interventions to standardize stroke care. Later Prof. Silke Walter emphasized the importance of prehospital stroke care, particularly the role of emergency medical services in recognizing stroke symptoms and transporting patients rapidly to stroke centers. The lecture was followed by Prof. Guillaume Turc's presentation about the methodology of conducting stroke research, with a focus on clinical trials, data collection, and statistical analysis. It highlighted best practices for ensuring robust and reliable research outcomes. Subsequently, Prof. Urs Fischer discussed future directions for endovascular thrombectomy, including novel techniques and patient selection criteria to expand the treatment's use. Ongoing clinical trials and research priorities were also covered. Finally, before the coffee break, Prof. Carlos Molina delivered a remote presentation on the potential role of artificial intelligence in stroke care, particularly how AI tools are being developed to assist in diagnosis, imaging interpretation, and treatment planning. This session showcased emerging AI applications that could revolutionize stroke care.

After the coffee break, the summer school continued with a session, dedicated to Inflammation and Rehabilitation in Stroke. It was begun by Prof. Simona Sacco, who focused on the use of dual antithrombotic therapy in stroke prevention, reviewing current guidelines and discussing potential areas for improvement in patient selection and management. Next, Prof. Peter Kelly talked on inflammation as a contributor to stroke pathophysiology, with a focus on how targeting inflammatory pathways could serve as a novel strategy for both stroke prevention and improving post-stroke recovery. Finally, the day was concluded by Prof. Jesse Dawson with a remote presentation on the innovations in stroke rehabilitation, specifically focusing on the use of hand orthoses and other assistive devices to enhance motor recovery. The session also touched on future developments in neurorehabilitation technology.



Day 4

The first part of Day 4 was dedicated to Life After Stroke. The morning began with a session on post-stroke recovery, where Prof. Katharina Stibrant Sunnerhagen discussed the stages of recovery following a stroke, emphasizing the significance of early rehabilitation and ongoing care to enhance functional outcomes. She highlighted various strategies for managing the physical, cognitive, and emotional challenges faced by stroke survivors. Following this, Prof. Natan Bornstein presented on cognitive impairment after stroke, focusing on its incidence, diagnostic challenges, and management. His talk explored the prevalence of post-stroke cognitive decline and the best approaches to identify and manage these impairments to improve long-term patient outcomes. The session continued with Prof. Rūta Mameniškienė, who discussed the occurrence and management of post-stroke seizures. She delved into the clinical challenges these seizures pose, their impact on recovery, and the current strategies for diagnosing and treating these complications in stroke survivors. After the coffee break, the summer school transitioned into a session on Stroke Genetics and Small Vessel Disease. Prof. Hugh S. Markus delivered a remote presentation updating the audience on the latest research on cerebral small vessel disease. His talk emphasized the genetic underpinnings of the disease and its role in stroke pathophysiology. Following this, Prof. Stéphanie Debette gave another remote presentation focusing on the genetics of stroke, discussing the latest discoveries in stroke genomics and how these findings are shaping the future of prevention and treatment strategies. The morning concluded with Prof. Joanna M. Wardlaw (UK), who provided a comprehensive overview of the ESO Guidelines on Small Vessel Disease and Lacunar Ischemic Stroke. Her presentation outlined evidence-based practices for the diagnosis and treatment of these conditions, offering participants clear guidelines for clinical application.

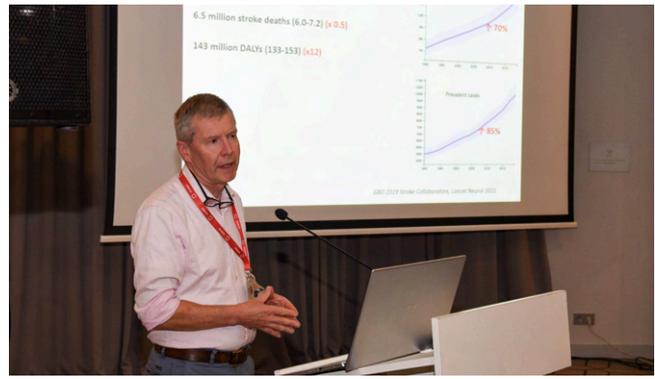
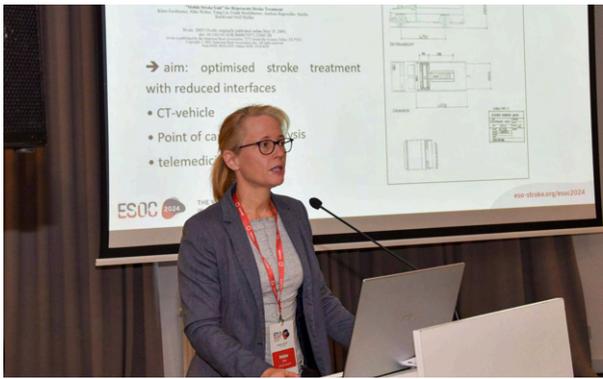
The afternoon sessions were dedicated to Discussions on Extraordinary Clinical Cases, where young professionals from various countries presented complex and unique clinical cases. These sessions, moderated by Prof. Dalius Jatužis, Prof. Natan Bornstein, and Assoc. Prof. Aleksandras Vilionskis, involved interactive discussions on diagnostic challenges, treatment dilemmas, and innovative care approaches. This format provided an excellent opportunity for knowledge exchange and peer learning in managing challenging stroke cases.



Day 5

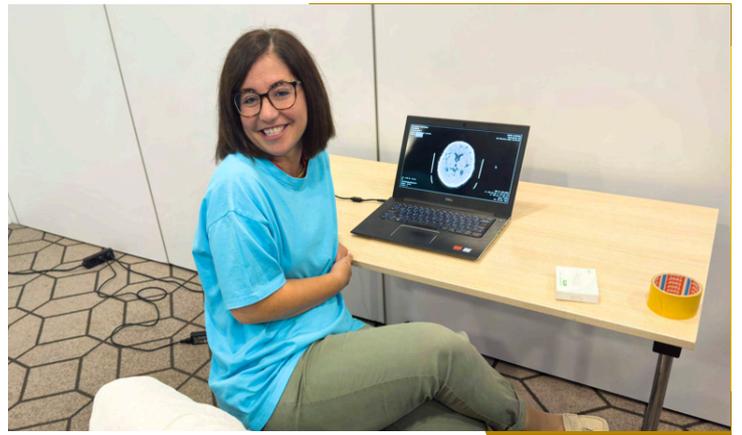
The first part of Day 5 was dedicated to discussing Other Causes of Stroke. The day began with a session led by Prof. Charlotte Cordonnier, who covered the topic of intracerebral hemorrhage. Her talk, titled "Intracerebral Hemorrhage: Past, Present, and Future," explored the evolution of our understanding of this type of stroke, touching on historical perspectives, current treatment practices, and emerging research aimed at improving patient outcomes. Next, Prof. Dalius Jatužis delivered a lecture on CNS Vasculitis, focusing on the diagnostic challenges and management strategies for this rare but serious cause of stroke. His presentation emphasized the importance of early recognition and treatment to prevent further complications. Following this, Inga Slautaitė presented on the management of Extracranial and Intracranial Artery Dissection, which is a common cause of stroke in younger populations. She provided a thorough review of the available treatment options and long-term care considerations for patients affected by artery dissections. After the coffee break, the summer school continued with a session on Posterior Circulation Stroke and Hemorrhagic Stroke Management. Prof. Aleksandra Ekkert led a discussion on Posterior Circulation Stroke, highlighting the differences in presentation and treatment between posterior and anterior circulation strokes. Her talk provided insights into tailored treatment approaches for these types of strokes, which often present more complex challenges. The final scientific session was delivered by Prof. Saulius Ročka from Lithuania, who discussed the Surgical Management of Intracerebral Hemorrhage and Arteriovenous Malformations. He provided detailed guidelines on when surgical intervention is appropriate, focusing on patient selection, timing, and surgical techniques to optimize outcomes in cases of hemorrhage and AVMs. This concluded the summer school, which provided participants with a deep dive into

less common but critical causes of stroke, alongside comprehensive discussions on advanced treatment techniques and management strategies.



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