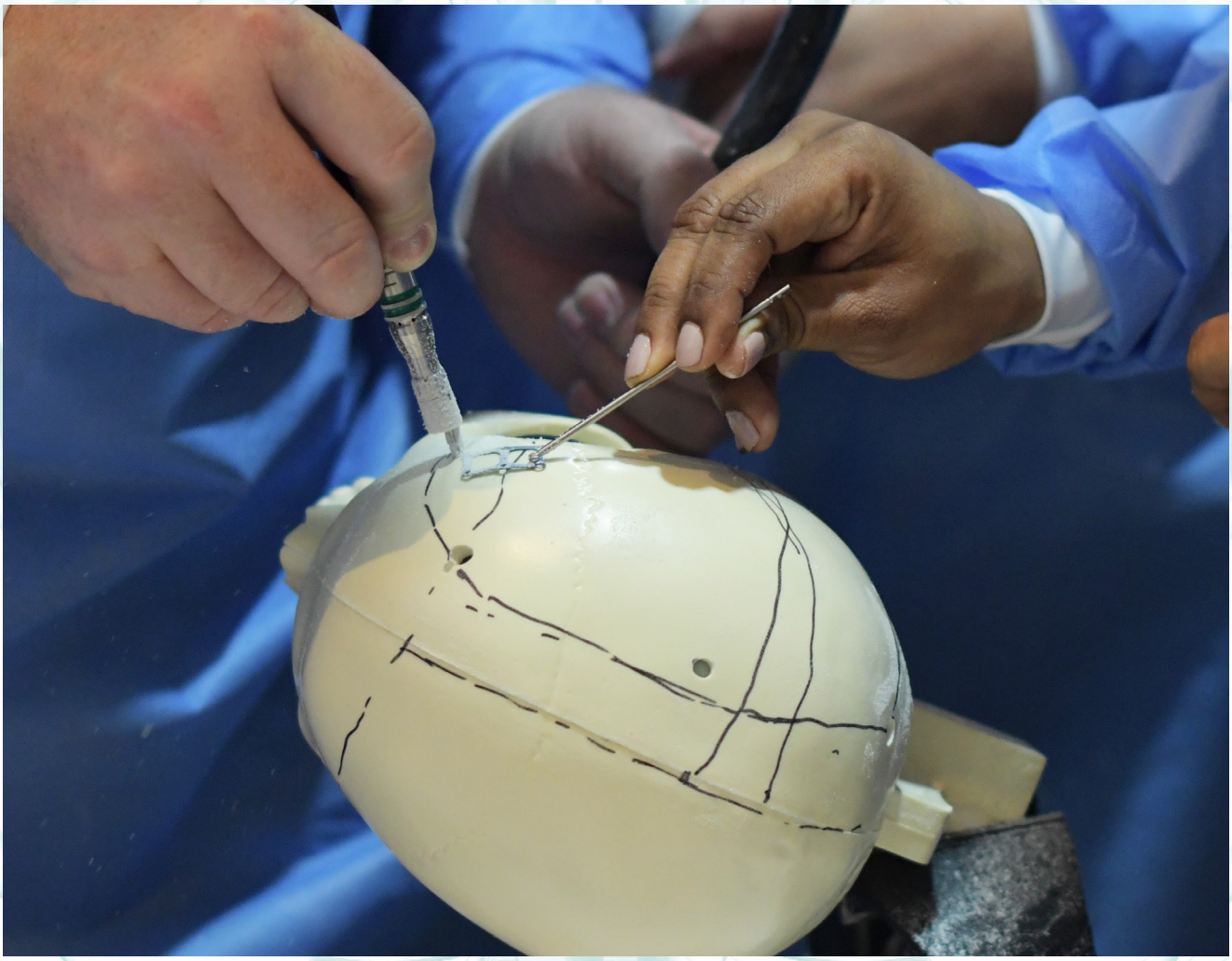
Global Neuro

Event Program

Global Neuro Advanced Course— Neurotrauma

Shaping the Future of Neurotrauma Monitoring and Management from its Origins

November 10–11, 2023 I Edinburgh, UK



Content

Course description

This course covers the current best strategies and considerations for managing neurotrauma patients with a special emphasis on advanced surgical treatment and neuromonitoring. The course is based on competencies defined in Global Neuro's curriculum. The content is delivered using multiple methods. Comprehensive lectures concentrate on the understanding of core material. Interactive case presentations further deepen this knowledge and enrich the discussion in trauma management. Practical sessions teach the application of Global Neuro principles as well as the management of common injuries. Case-based discussions link the lecture material and practical skills with the clinical problems encountered in clinical practice.

Target participants

The Global Neuro Advanced Course has been developed for trainees, surgeons, and physicians who are interested in the management of cranial and spinal neurotrauma and who have a strong interest in complex patient care, clinical research, and an interdisciplinary approach.

Goal of the course

The Global Neuro Advanced Neurotrauma Course covers the management of complex cranial neurotrauma using advanced monitoring, devices, and techniques. There will also be a focus on current research and the management of challenging clinical scenarios and complications.

Learning objectives

By completing this advanced course, participants will be better able to:

- Apply current classification systems, guidelines, and recommendations in neurotrauma
- Discuss new trends and future topics in neurotrauma care
- Manage complex neurotrauma, including penetrating injuries, vascular injuries, skull base fractures and spinal cord injuries with an interdisciplinary approach
- Conduct and interpret advanced imaging and neuromonitoring
- Plan and perform the following operative techniques: multifunctional probes, complex cranial reconstruction, and dural repair
- Manage complex complications such as metabolic disturbances, CSF leaks, coagulopathy, and cranial neuropathies
- Discuss and conduct state-of-the-art clinical research

Course Chair

Andreas Demetriades
Royal Infirmary of Edinburgh
Edinburgh, United Kingdom

Andres M. Rubiano
El Bosque University
Cali, Colombia

International faculty

David Adelson	Rockefeller Neuroscience Institute at WVU Medicine	Morgantown, United States
Michael Buchfelder	University of Erlangen-Nueremberg	Erlangen, Germany
Randall Chesnut	University of Washington	Seattle, United States
Gregory Hawryluk	Cleveland Clinic	Cleveland, United States
Nicolo Marchesini	University of Verona	Verona, Italy
Wilco Peul	University Neurosurgical Center Holland	Leiden, Netherlands
Edoardo Picetti	Parma University Hospital	Parma, Italy
Shelly Timmons	Indiana University	Indianapolis, United States

National faculty

Pragnesh Bhatt	Aberdeen Royal Infirmary	Aberdeen, United Kingdom
Alexis Joannides	University of Cambridge	Cambridge, United Kingdom
Jonathan Rhodes	University of Edinburgh	Edinburgh, United Kingdom
Colin Smith	University of Edinburgh	Edinburgh, United Kingdom

Course agenda
Friday, November 10, 2023

TIME	AGENDA ITEM	FACULTY
08:00–08:30	Registration	
08:30–08:40	Welcome Remarks / Course Introduction	Andreas Demetriades
08:40–08:50	Global Neuro Remarks	Andres Rubiano
Module 1	**The Development of Fundamental Concepts in Neurotrauma**	**Andreas Demetriades / Gregory Hawryluk**
08:50–09:10	Monroe, Kellie, and Abercrombie: The Fundamentals of ICP Concepts in Edinburgh	Andreas Demetriades
09:10–09:30	From Lundberg ICP Work to the Lund Protocol in TBI Care (Recording)	Niklas Marklund
09:30–09:50	The Glasgow Experience and its Contributions to the Modern TBI Care	Colin Smith
09:50–10:10	J. Douglas Miller: Concepts of the Impact of ICP and CSF Dynamics in TBI Care	Randall Chesnut
10:10–10:30	Contributions of TBI Care from Rotterdam and the Netherlands	Wilco Peul
10:30–10:50	The Cambridge Experience of TBI Care: Monitoring, Surgery and Global Research	Alexis Joannides
10:50–11:05	**Q&A Session for Module 1**	
11:05–11:20	**COFFEE BREAK**	
Module 2	**Modern TBI Concepts in Guidelines, Consensus and Protocols**	**Shelly Timmons / Andres Rubiano**
11:20–11:40	The CREVICE Protocol: TBI Care in Absence of Advanced Neuromonitoring	Andres Rubiano
11:40–12:00	The SIBICC I Protocol: How to Deal with TBI Based on Invasive ICP Monitoring	Randall Chesnut
12:00 - 12:20	The SIBICC II Protocol: How to Deal with TBI Based on Dual Invasive Monitoring	Gregory Hawryluk
12:20–12:40	The BTF Pediatric TBI Guidelines	David Adelson
12:40–13:00	The WSES Consensus: An Algorithm for Polytrauma and TBI Care	Edoardo Picetti
13:00–13:15	**Q&A Session for Module 2**	
13:15–14:15	**LUNCH**	

TIME	AGENDA ITEM	FACULTY
Module 3	**Modern Trends and Concepts in SCI Diagnosis and Management**	**Andreas Demetriades / Wilco Peul**
14:15–14:35	The Concepts of Advanced Spinal Monitoring in SCI	Andreas Demetriades
14:35–14:55	The AO Guidelines for Spinal Cord Injury	Wilco Peul
14:55–15:15	The WFNS Guidelines for SCI Diagnosis and Management	Andreas Demetriades
15:15–15:35	The WSES Consensus: An Algorithm for Polytrauma and SCI Care	Edoardo Picetti
15:35–15:55	The Bootstrap Protocol: A New Perspective for Managing SCI in Different Contexts	Nicolo Marchesini
15:55–16:15	Future Clinical Trials in Surgical Care of TBI	Jonathan Rhodes
16:15–16:30	**Q&A Session for Module 3**	
16:30 – 16:40	**COFEE BREAK**	
Module 4	**Case Discussions: Managing Complex Cases in Neurotrauma**	**Randall Chesnut**
16:40–17:40	**Case 1:** Acute Traumatic Brain Edema with Brain Hypoxia (12m) **Case 2:** Acute SCI with Anterior Thoracic Compression and Partial Deficit (12m) **Case 3:** Acute Cervical SCI with Posterior Compression and Complete Deficit (12m) **Case 4:** Severe TBI with Concurrent Thoracic and Abdominal Injuries (12m) **Case 5:** Acute Spinal Cord Injury with Thoracic and Abdominal Injuries (12m)	1. Gregory Hawryluk 2. Wilco Peul 3. Andreas Demetriades 4. Shelly Timmons 5. Edoardo Picetti
17:40–17:55	**Q&A Session for Module 4**	
17:55–18:05	**Closing Remarks Day 1**	

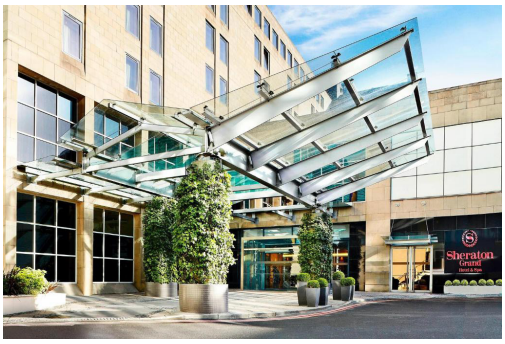
Saturday, November 11, 2023

TIME	AGENDA ITEM	FACULTY
8:00–08:10	Introduction to Day 2	Andreas Demetriades
Module 5	**Case Discussions: Neurotrauma Care in Special Populations**	**Michael Buchfelder / David Adelson**
08:10–08:50	**Case Discussions in TBI** **Case 1:** TBI and Pituitary Dysfunction (15m Case + 5m Discussion) **Case 2:** Pediatric Neurotrauma and Posttraumatic Epilepsy (15m Case + 5m Discussion)	Michael Buchfelder David Adelson
08:50–09:30	**Case Discussions in SCI** **Case 1:** Craniovertebral Junction Trauma (15m Case + 5 Discussion) **Case 2:** Future Clinical Trials in SCI Surgical Care (15m Case + 5 Discussion)	Wilco Peul Andres Rubiano
Module 6	**Hands-On Stations: Advanced Monitoring and Management in Neurotrauma (part 1)**	**Andreas Demetriades/ Andres Rubiano**
09:30–11:30	**Traumatic Brain Injury** Table 1: Decompressive Craniectomy and Cranial Reconstruction (40m) Table 2: Invasive Dual Neuromonitoring (ICP + PTiO2) (40m) Table 3: Non-Invasive Neuromonitoring (TCD/ONUS/ Pupillometry) (40m) **Spinal Cord Injury** Table 4: Cervical Decompression and Fixation (40m) Table 5: Thoraco-Lumbar Decompression and Fixation (40m) Table 6: Advanced Spinal Cord Monitoring (40m)	 Shelly Timmons / Randall Chesnut Gregory Hawryluk / Michael Buchfelder Nicolo Marchesini / David Adelson Peul Wilco / Edoardo Picetti Andreas Demetriades Andres Rubiano
11:30–11:45	**COFFEE BREAK**	

TIME	AGENDA ITEM	FACULTY
Module 6	**Hands-On Stations: Advanced Monitoring and Management in Neurotrauma (part 2)**	**Andreas Demetriades/ Andres Rubiano**
11:45–13:45	**Spinal Cord Injury**	
	Table 1: Decompressive Craniectomy and Cranial Reconstruction (40m)	Gregory Hawryluk / Wilco Peul
	Table 2: Invasive Dual Neuromonitoring (ICP + PTiO2) (40m)	Andreas Demetriades / Shelly Timmons
	Table 3: Non-Invasive Neuromonitoring (TCD/ONUS/ Pupillometry) (40m)	Nicolo Marchesini / David Adelson
	Spinal Cord Injury	
	Table 4: Cervical Decompression and Fixation (40m)	Peul Wilco / Edoardo Picetti
	Table 5: Thoraco-Lumbar Decompression and Fixation (40m)	Andreas Demetriades / Pragnesh Bhatt
	Table 6: Advanced Spinal Cord Monitoring (40m)	Andres Rubiano
13:45–14:45	**LUNCH**	
Module 7	**Shaping the Future of Care**	**Shelly Timmons**
14:45 – 15:05	Future of SCI Monitoring and Medical Care	Wilco Peul
15:05 –15:25	Future of TBI Monitoring and Medical Care	Randall Chesnut
15:25 – 15:45	Future Clinical Trials in Surgical Care of SCI	Andres Rubiano
15:45–16:00	**COFFEE BREAK**	
16:00 – 16:20	Integration of Invasive and Non-Invasive Neuromonitoring in TBI Care	Andres Rubiano
16:20 – 16:40	The Role of Machine Learning and Artificial Intelligence in Neurotrauma	Alexis Joannides
16:40 – 16:55	**Q & A Session for Module 7**	
16:55 – 17:10	**Closing Remarks Day 2 and Final Certification**	Andreas Demetriades / Andres Rubiano

Course venue

Sheraton Grand Hotel & Spa
1 Festival Square,
Edinburgh EH3 9SR
United Kingdom
Tel: +44 (0)131 229 9131



Event organization

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Website: www.globalneuro.org

Event Organizer
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Global Neuro funding sources

Unrestricted educational grants from different sources are collected and pooled together centrally or for specific events by the Global Neuro Foundation. All events are planned and scheduled by local and regional Global Neurosurgeon groups based on local needs assessment. We rely on commercial partners for in-kind support to run simulations/skills training if educationally needed.

Course information

Event fee
Global Neuro Seminar—Neurotrauma
€ 500 (£430).-
Included in the course fee are course material, coffee breaks, lunch, and course certificate.

Registration
Please click on the registration link below to register for the **Global Neuro Advanced Course—Neurotrauma**:
https://globalneuro.org/EN/education/event-detail/61.html

European CME Accreditation
For this event, the UEMS—EACCME® in Brussels has granted maximum 14.5 European CME credits (EACCME®s).

Course certificate
The course certificates can only be provided if the participant attends the entire event (100%) and will be available at the end of the event.

Evaluation guidelines
All Global Neuro events apply the same evaluation process, either online (pre- and post-event evaluation) or/and onsite by paper and pencil questionnaires. This helps Global Neuro to ensure that we continue to meet your training needs.

Dress code
Casual

Language
English

No insurance
The event organization does not take out insurance to cover any individual against accidents, theft, or other risks.

Security
Security checks may be conducted at the entrance of the building. Wearing of a name tag is compulsory during lectures, practical exercises, and group discussions.

Mobile phone use
Use of mobile phones is not allowed in the lecture halls and in other rooms during educational activities. Please be considerate to others by turning off your mobile phone.

Intellectual property
Event materials, presentations, and case studies are the intellectual property of the event faculty. All rights are reserved. Check hazards and legal restrictions on **www.globalneuro.org/legal**

Recording, photographing, or copying of lectures, practical exercises, case discussions, or any course materials is strictly forbidden. Participants violating intellectual property will be dismissed.

The Global Neuro Foundation reserves the right to film, photograph, and audio record during their events. Participants must understand that in this context, they may appear in these recorded materials. The Global Neuro Foundation assumes participants agree that these recorded materials may be used for Global Neuro marketing and other purposes and made available to the public.

Global Neuro Foundation— Principles of Educational Events

1) Academic independence

Development of all curricula, design of scientific event programs, and selection of faculty are the sole responsibilities of volunteer surgeons from the Global Neuro network. All education is planned based on needs assessment data, designed and evaluated using concepts and evidence from the most current medical education research, and involving the expertise of the Global Neuro Education Institute (www.globalneuro.org). Industry participation is not allowed during the entire curriculum development and planning process to ensure academic independence and to keep content free from bias.

2) Compliance to accreditation and industry codes

All planning, organization, and execution of educational activities follow existing codes for accreditation of high-quality education:

- Accreditation Criteria of the Accreditation Council for Continuing Medical Education, USA (www.accme.org)
- ACCME Standards for Commercial Support: Standards to Ensure Independence in CME Activities (www.accme.org)
- Criteria for Accreditation of Live Educational Events of the European Accreditation Council for Continuing Medical Education (www.uems.eu)
- Events that receive direct or indirect unrestricted educational grants or in-kind support from industry also follow the ethical codes of the medical industry, such as:
- Eucomed Guidelines on Interactions with Healthcare Professionals (www.medtecheurope.org)
- AdvaMed Code of Ethics on Interactions with Health Care Professionals (www.advamed.org)
- Mecomed Guidelines on Interactions with Healthcare Professionals (www.mecomed.org)

3) Branding and advertising

No industry logos or advertising (with the exception of the Global Neuro Foundation) are permitted in the area where educational activities take place.
Sponsors providing financial or in-kind support are allowed to have a promotional booth or run activities outside the educational area with approval from the event chairperson.

4) Personnel

Industry staff are not allowed to interfere with the educational content or engage in educational activities during the event.

Sponsors

A special thanks to our partner Integra and DePuy Synthes for providing educational support grants for this event.

Thanks to NeurOptics and Rowena for their in-kind support.

Codman® CereLink™

ICP monitoring system

From ICP to IC More.

CereLink™ provides continuous ICP burden data[1,2] & minimal drift up to 30 days.

Scan to learn more

1 Vik et al, Relationship of "dose" of intracranial hypertension to outcome in severe traumatic brain injury, J Neurosurg 109:000–000, 2008.
2. Güiza et al; Visualizing the pressure and time burden of intracranial hypertension in adult and paediatric traumatic brain injury. Intensive Care Med. 2015;41(6):1067-76.

Indications CereLink™ Monitor: The ICP Monitor is intended for use as an interface between compatible strain gauge type pressure transducers and standard physiological pressure monitoring systems. The ICP Monitor is also intended for use as an independent pressure monitor for displaying the mean,
systolic and diastolic numeric values of a physiologic pressure waveform in the absence of an external patient monitor.

Contraindications CereLink™ Monitor: The ICP Monitor is contraindicated for use in a Magnetic Resonance (MR) environment. Refer to the ICP Sensor IFU for MR environment use. Use of the kit is indicated when direct intracranial pressure (ICP) monitoring is required. The kit is indicated for use in both subdural and intraparenchymal pressure monitoring applications.

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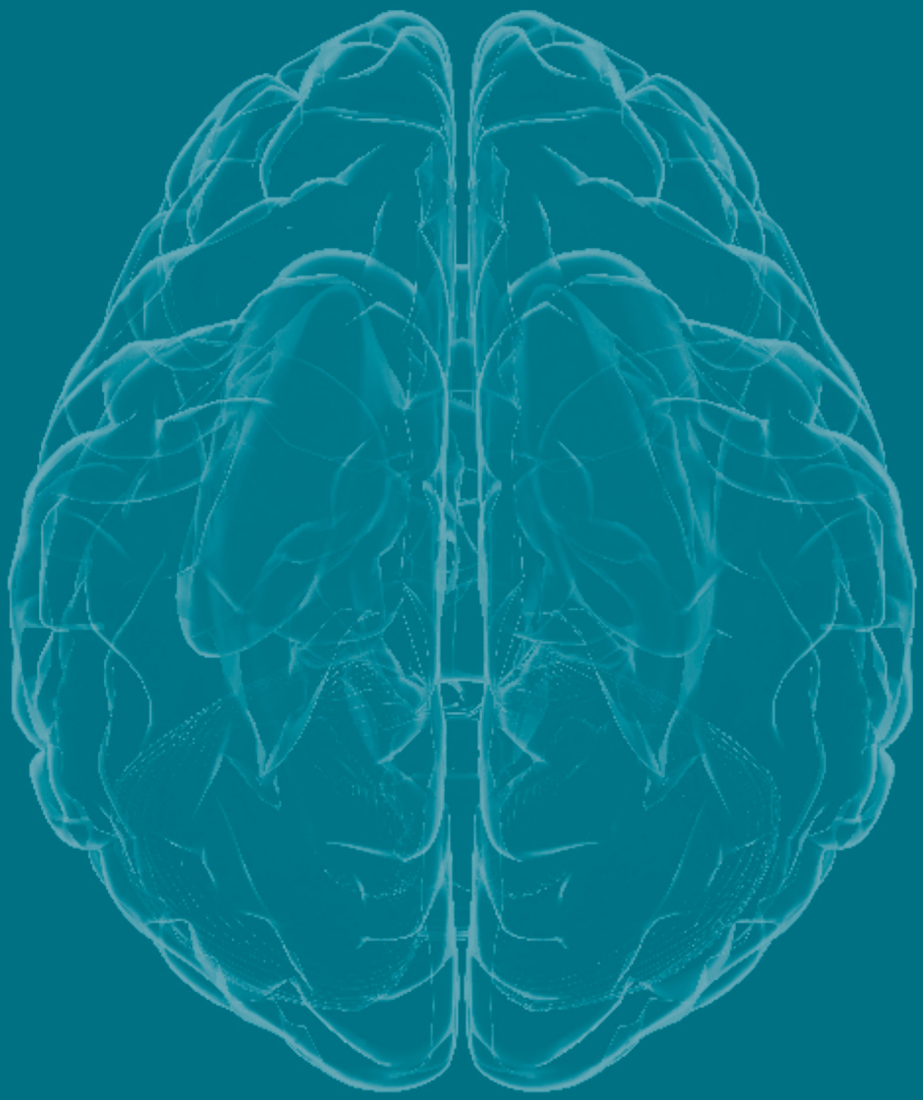

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