BR.A.I.N. 2019
BRESCIA ANESTHESIA AND INTENSIVE CARE NEUROMONITORING
SUMMER SCHOOL - 4TH EDITION

SCIENTIFIC COMMITTEE:
FRANK RASULO
NICOLA LATRONICO
RITA BERTUETTI

BRESCIA 23-27 SEPTEMBER 2019
PROGRAMMA SCIENTIFICO

DAY 1

08:00-08:45  Registration
09:00-09:10  Introduction to the course
             Flavia Petrini
09:10-09:15  Objectives of the course
             Frank Rasulo

Neurological evaluation of the acutely brain injured patient
09:15-09:35  Lectio magistralis
             State of the Art Clinical Evaluation of the Brain Injured Patient: beyond the GCS
             Nicola Latronico
09:35-09:45  PUPILLOMETRY – From the street to the ICU
             Frank Rasulo
09:45-09:55  PUPILLOMETRY – For pain management
09:55-10:10  Discussion
10:10-10:30  COFFEE BREAK

Brain Oxygenation: starting from the beginning
10:30-11:00  Gaining Access: Importance of oxygenating the injured brain
             Massimo Sorbello
11:00-11:10  Monitoring Oxygenation Invasively: Indications and Usefulness
             Paolo Gritti
11:10-11:40  Monitoring Oxygenation Non-Invasively: protecting the NON-injured Brain
             Basil Matta
11:40-12:30  Discussion
12:30-14:00  LUNCH
14:00-       Hands-on Session
             The participants will all have the chance to use and perform Pupillometry,
             Brain O3 NIRS and difficult airway access simulator

DAY 2

Brain Ultrasonology

10:00-10:30  Lectio magistralis
             Transcranial Doppler – Where it all began and where we’re going
             Rune Aaslid
10:30-10:40  Tran cranial Color Coded Duplex Doppler: How to do it now
             Simone Piva
10:40-11:00  Discussion
11:00-11:20  COFFEE BREAK
11:20-11:30  Where and when to use it: Vasospasm
             Marina Munari
11:30-11:40  Where and when to use it: Stroke Ischemico
             Paolo Gritti
11:40-11:50  Where and when to use it: Optic Nerve Sheath diameter
             Rita Bertuetti
11:50-12:00  Where and when to use it: Intracranial Hypertension Bundle
             Frank Rasulo
12:00-12:30  Discussion
12:30-14:00  LUNCH
14:00-       Hands-on Session
             The participants will all have the chance to use and perform Transcranial Doppler
             and Trans-cranial color coded duplex Doppler. A TCD Simulator will be present.
**DAY 3**

**EEG Monitoring of the Critically Ill Patient**

09:00-09:20  Introduction to the use of EEG in the critically ill patient  
Paolo Zanatta

09:20-09:40  Processing the EEG signal: making things simple  
Pierre Pandin

09:40-10:00  Processed EEG - Importance in Anesthesia, importance in ICU  
Stefano Romagnoli

10:00-10:15  Discussion

10:15-10:30  COFFEE BREAK

10:30-13:30  Hands-on Session  
The participants will all have the chance to apprehend and become familiar with EEG monitoring.

13:30-14:30  LUNCH

**Monitoring the Injured Brain**

14:30-14:50  Lectio Magistralis  
10 years of research on Brain Injury... any progress?  
Giuseppe Citterio

14:50-15:00  Intracranial Hypertension following brain injury how much of a problem is it?  
Carlo Alberto Castione

15:10-15:20  Invasive ICP monitoring by Intensivists  
Frank Rasulo

15:20-  Hands-on Session  
The participants will learn how to perform intracranial burholes for the insertion of invasive ICP and PtiO2 monitoring.

**Workshop on Invasive ICP and PtiO2 Monitoring**  
Frank Rasulo

**Workshop on Invasive Brain Tissue Oxygenation**  
Paolo Gritti

**DAY 4**

**Muscle & Nerve Monitoring**

09:30-10:00  The sick and the Weak  
Nicola Latronico

10:00-10:10  Polineuropathy or Hypokinetic Delirium?  
Simone Piva

10:10-10:40  Lectio Magistralis  
Role of neurophysiological examination of the peripheral nervous system and muscles in the ICU  
Wermer Z'Graggen

10:40-11:00  Discussion

11:10-11:30  COFFEE BREAK

11:30-12:00  Decomposizione high-desnsity EMG  
Claudio Orizio

12:00-12:30  Discussion

12:30-14:00  LUNCH

14:00-14:50  Lectio Magistralis  
10 years of research on Brain Injury... any progress?  
Giuseppe Citterio

14:50-15:00  Intracranial Hypertension following brain injury how much of a problem is it?  
Carlo Alberto Castione

15:10-15:20  Invasive ICP monitoring by Intensivists  
Frank Rasulo

15:20-  Hands-on Session  
The participants will learn how to perform intracranial burholes for the insertion of invasive ICP and PtiO2 monitoring.

**Workshop on Invasive ICP and PtiO2 Monitoring**  
Frank Rasulo

**Workshop on Invasive Brain Tissue Oxygenation**  
Paolo Gritti

**Workshop on Invasive Brain Tissue Oxygenation**  
Paolo Gritti
DAY 5
Machine Learning and Artificial Intelligence in the ICU

09:00-09:30  Lectio Magistralis
The Importance of Collaborating with Bio Engineers and Data Analysts
Elena Bignami

09:30-10:00  BIG DATA in the ICU: How to deal with the large numbers
Ari Ercole

10:00-10:30  Discussion

11:30-11:00  COFFEE BREAK

11:00-11:30  Closed-loop Anesthesia – Dawn or Sunset?
Antonio Visioli

11:30-  Workshops: an example of machine integration
Massimiliano Paltenghi

XXX  Hands-on Session
The participants will all have the chance to apprehend and become familiar with the ICMplus® monitoring system

FACULTY
Rune Aaslid (Bern)
Rita Bertuetti (Brescia)
Elena Bignami (Parma)
Carlo Alberto Castioni (Torino)
Giuseppe Citerio (Monza)
Ari Ercole (Cambridge)
Paolo Gritti (Bergamo)
Bruno Guarneri (Brescia)
Nicola Latronico (Brescia)
Basil Matta (Cambridge)
Marina Munari (Padova)
Francesco Negro (Brescia)
Claudio Orizio (Brescia)
Pierre Pandin (Bruxelles)
Massimiliano Paltenghi (Brescia)
Flavia Petrini (Chieti)
Simone Piva (Brescia)
Frank Rasulo (Brescia)
Stefano Romagnoli (Firenze)
Massimo Sorbello (Catania)
Antonio Visioli (Brescia)
Paolo Zanatta (Verona)
Werner Z’Graggen (Bern)
MAIN TOPICS

- State of the Art Clinical Evaluation of the Brain Injured Patient;
- Oxygenating the Injured Brain;
- Pupillometry;
- Brain Ultrasound;
- Essential Neurophysiology: pEEG, qEEG - in Anesthesia & ICU;
- Monitoring the peripheral nervous system and muscles in the ICU;
- Invasive ICP monitoring by Intensivists;
- BIG DATA Processing in ICU

All topics will be coupled with theory and practice, however the main objective of the course will be the «hands-on» sessions during which all the course participants will have the chance to learn how to apply all the monitoring techniques and devices.

The number of participants will be limited to a total of 100.

VENUE

UNIVERSITA’ DEGLI STUDI DI BRESCIA
Facoltà di Medicina e Chirurgia
Edificio Polifunzionale - Aula B2
Viale Europa, 11
Brescia

REGISTRATION AND COURSE FEES

Physicians: 350 €
Residents: 150 €

INFORMATION AND CONTACTS

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