

05 DECEMBER 2026

Villa Quartara

Via Romana della Castagna 11A, Genoa

Paediatric EEG- Bootcamp BASIC: SBI-PALNET-Safetots



Gaslini Academy

Organising Secretariat
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Endorsed by:



COURSE DIRECTORS:

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Gregory Johnson, The Hospital for Sick Children - Toronto

Matthias Kreuzer, Technical University of Munich

Dean Kurth, The Children's Hospital of Philadelphia

Federico Linassi, Ca' Foncello Treviso Regional Hospital

Mihir Parikh, Dallas Children's Hospital



Scientific Rationale

As EEG monitoring becomes increasingly available in anaesthesia, it provides a unique opportunity to directly assess brain function and optimise anaesthetic management. However, its clinical value depends on accurate interpretation, particularly challenging in children due to developmental variability, age-dependent EEG patterns, and the influence of anaesthetic agents.

This **hands-on course** offers a structured and practical introduction to EEG monitoring in paediatric anaesthesia. Through focused lectures, interactive discussions and case-based workshops, participants will learn to interpret EEG signals, recognise artefacts, understand age-specific patterns and appreciate the effects of commonly used anaesthetic drugs. The course also aims to support the integration of EEG into clinical decision-making, promoting safer and more individualised care.

This is the first Paediatric EEG Bootcamp developed through the collaboration of three complementary international initiatives:

- **SafeTots**, dedicated to improving the safety of paediatric anaesthesia
- **Safe Brain Initiative (SBI)**, promoting data-driven approaches to brain monitoring and patient safety
- **PALNET (Paediatric Anaesthesia Learning Network for EEG Technology)**, fostering education and collaborative research in EEG-guided anaesthesia

Objectives

At the conclusion of this course, learners should be able to:

- Explain the fundamental principles of EEG and its interpretation
- Recognize and differentiate EEG artefacts during anaesthesia
- Describe how common anaesthetic agents and perioperative medications alter EEG signatures
- Compare age-related EEG patterns in neonates, infants and children, identifying burst suppression phenomena and other age-specific considerations in anaesthetic management
- Analyse how underlying pathophysiological conditions, such as oxygen delivery, temperature and brain injury, influence frontal EEG patterns and apply this knowledge to refine anaesthetic care.

Target Audience

This conference is ideal for anaesthesiologists dealing with children on a daily bases. Residents and fellows would also benefit from the subject matter of the conference.

Event programme

08:00 – 08:30 Participants' registration

08:30 – 08:45 Welcome and introduction to the Course Concept Safe |

N. Disma, M. Kreuzer, D. Kurth

- Brain Initiative
- PALNET
- SafeTots

08:45 – 09:15 Why Should We Measure EEG Intraoperatively and pediatrics specifically? |

I. Jaramillo

09:15 – 9:35 EEG evolution, from neonatal to adolescent age | **M. Cataldi**

09:35 – 10:05 What Does EEG Reflect? What Does the Monitor Show Us? | **M. Kreuzer**

10:05 – 10:30 How to recognize Nociception on EEG? | **M. Ebensperger**

10:30 – 11:00 *Coffee break*

11:00 – 11:30 What do We See in different ages of patients on EEG During General Anesthesia?
How to identify artifacts? | **G. Johnson**

11:30 – 12:00 Substance-Specific Signatures in EEG including different ages | **M. Parikh**

12:00 – 12:15 PALNET methodology for EEG-guided pediatric anesthesia (including advanced
brain monitoring in critically ill children) | **D. Kurth**

12:15 – 12:30 Discussion

12:30 – 12:45 Quiz #1

12:45 – 14:00 *Lunch*

14:15 – 15:15 Workshop: EEG case simulation and interpretation

15:30 – 16:30 Workshop: EEG case video and interpretation

16:30 – 17:00 *Coffee break*

17:00 – 17:30 Basic for research in EEG-guided anesthesia | **F. Linassi**

17:30 – 17:45 Discussion

17:45 – 18:00 Quiz #2

18:00 – 18:20 SBI, PALNET, SafeTots Farewell

Provider 856 - 495141; N° crediti ECM: 8

Il corso è accreditato per le seguenti categorie professionali:

MEDICO CHIRURGO: anestesia e rianimazione; medicina di emergenza-urgenza; neurologia; neuropsichiatria infantile; pediatria

Per avere diritto ai crediti è necessario:

- aver frequentato il 90% dell'attività formativa dell'evento
- aver firmato a inizio e fine evento

L'attestato di partecipazione e l'attestato ECM potranno essere scaricati direttamente dal sito tramite le proprie credenziali.

Registration fees:

- Participant in presence - €400
- Participant online - €250

The registration fee in presence includes coffee breaks, lunch and workshops.

Event registration link:

EEG Bootcamp

NOME E COGNOME	LAUREA	SPECIALIZZAZIONE	AFFILIAZIONE
Matteo Cataldi	Medico chirurgo	Neuropsichiatria infantile	IRCCS Giannina Gaslini - Genoa
Nicola Disma	Medico chirurgo	Anestesia e rianimazione	IRCCS Giannina Gaslini - Genoa
Max Ebensperger	Medico chirurgo	Anestesia e rianimazione	Technical University of Munich
Isabella Jaramillo	Medico chirurgo	Anestesia e rianimazione	McMaster Children's Hospital - Hamilton
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Mihir Parikh	Medico chirurgo	Anestesia e rianimazione	Dallas Children's Hospital