

05 DECEMBER 2026

Villa Quartara

Via Romana della Castagna 11A, Genoa

Paediatric EEG- Bootcamp BASIC: SBI-PALNET-Safetots



Gaslini Academy

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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 - event currently undergoing accreditation

To be eligible for the credits, participants must:

- attend at least 90% of the educational activities of the event;
- sign in at the beginning and end of the event.

The certificate of attendance and the ECM certificate can be downloaded directly from the website using your login credentials.

Registration fees:

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

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

Participants online will attend the plenary session.

Event registration link:

EEG Bootcamp