

## PROGRAMME

### Paediatric Anaesthesia

**Sunday, March 03, 2024**

**Session Date/Time: Sunday, March 3, 2024 - 13:15 - 14:45**

MR 323 (Level 3)

#### **Paediatric Anaesthesia Workshop: Paediatric Airway Workshop**

Workshop Fee: 90 USD

Basic principles and advanced techniques negotiating simulated difficult Paediatric airways will be demonstrated. Comparing blades for direct laryngoscopy, channelled and non-channelled & pros and cons in paediatric population. Unique features and techniques for intubation in children will be demonstrated.

##### **Paediatric Airway Workshop**

*Nicola Disma, Italy*

##### **Paediatric Airway Workshop**

*Thomas Riva, Switzerland*

##### **Paediatric Airway Workshop**

*Narasimhan Jagannathan, United States*

##### **Paediatric Airway Workshop**

*Clyde Matava, Canada*

##### **Paediatric Airway Workshop**

*Paul Baker, New Zealand*

##### **Paediatric Airway Workshop**

*Josephine Tan, Singapore*

**Session Date/Time: Sunday, March 3, 2024 - 15:30 - 17:00**

MR 333 (Level 3)

#### **Paediatric Anaesthesia Workshop: Monitoring EEG in Paediatric Anaesthesia**

Workshop Fee: 10 USD

For this child, at this particular moment, how much anaesthesia should I give? Determining drug requirements in paediatric anaesthesia is challenging, as children can have a more variable response to drugs compared to adults, depending on their age, developmental stage, co-morbidities, and neurodevelopmental status. The brain is the primary site of action for sedative-hypnotic drugs, yet it is not routinely monitored during general anaesthesia or sedation in children. This is likely due to the fact that until recently, physiologically principled approaches for anaesthetic brain monitoring have not been well articulated. Our knowledge of anaesthetic brain mechanisms has developed rapidly in recent years. We now know that anaesthetic drug effects that are clearly visible in the electroencephalogram (EEG) reflect underlying anaesthetic pharmacology and brain mechanisms, in both adults and children. Recent clinical data have shown that anaesthesia-induced isoelectric events are prevalent in children receiving general anaesthesia. Anaesthesia-induced isoelectricity is a state of oversedation beyond what is required to maintain unconsciousness, suggesting that current models of anaesthetic management often predispose children to oversedation.

In this workshop, we will illustrate how EEG monitoring can be used to guide anaesthetic management in paediatric

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patients and improve patient safety. We will begin by reviewing how drug-specific and dose-dependent EEG signatures seen in adults are visible in children and infants, including those with neurodevelopmental disorders. We then discuss the clinical evidence that the existing model of anaesthetic dosing in children, which does not use the EEG, leads to unnecessarily deep anaesthesia. We will discuss the practical aspects of EEG monitoring in paediatric anaesthesia, including its applications and limitations, as well as how to troubleshoot problems during monitoring. Finally, we review detailed case studies which illustrate how the EEG can be used to guide anaesthetic management and enhance patient safety.

1. Understand age-dependent changes in anaesthesia-induced brain activity in infants and children, and how this activity relates to development of underlying brain circuits.
2. Understand the prevalence of isoelectric events in infants and young children undergoing general anaesthesia and how to identify and prevent these.
3. Understand the practical applications and limitations of EEG monitoring.
4. Understand how EEG monitoring can be used to guide anaesthesia care in infants and children.

### **Monitoring EEG in Paediatric Anaesthesia**

*Patrick Purdon, United States*

### **Monitoring EEG in Paediatric Anaesthesia**

*Choon Looi Bong, Singapore*

**PROGRAMME****Tuesday, March 05, 2024****Session Date/Time: Tuesday, March 5, 2024 - 08:15 - 09:45**

MR 325 (Level 3)

**Paediatric Anaesthesia Workshop: POCUS and US Guided Regional Anaesthesia Workshop**

Workshop Fee: 150 USD

1. Learn US guided POCUS exam including but not limited to cardiac, lung, gastric and venous access.
2. Transthoracic ECHO for quick cardiac examination.
3. Common US guided fascial plane blocks and blocks to use in paediatric practice everyday.
4. Expert guidance for ensuring success in all blocks.

**Chair: POCUS and Regional Anaesthesia***Santhanam Suresh, United States***POCUS and Regional Anaesthesia***Ban Tsui, United States***POCUS and Regional Anaesthesia***Manoj Karmakar, Hong Kong, China***POCUS and Regional Anaesthesia***Aruna Parameswari Sundaram, India***POCUS and Regional Anaesthesia***Mahesh Vakamudi, India***POCUS and Regional Anaesthesia***Viviane Nasr, United States***POCUS and Regional Anaesthesia***Josephine Tan, Singapore*

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### Wednesday, March 06, 2024

**Session Date/Time: Wednesday, March 6, 2024 - 13:45 - 15:15**

MR 336 (Level 3)

#### **Paediatric Anaesthesia Workshop: Implementing Research and Publications in Settings with Limited Resources**

Workshop Fee: Complimentary

This workshop will help novice researchers understand the fundamental requirements for good quality research with a focus on understanding the impact you wish to make with your research, the importance of defining a research question which is relevant and novel, and then the basic ingredients needed to answer that question. These fundamental principles are applicable to all settings but are especially important where resources are limited.

##### **Implementing Research and Publications in Settings with Limited Resources**

*Andrew Davidson, Australia*

##### **Implementing Research and Publications in Settings with Limited Resources**

*Susan Goobie, United States*

##### **Implementing Research and Publications in Settings with Limited Resources**

*Laszlo Vutskits, Switzerland*

##### **Implementing Research and Publications in Settings with Limited Resources**

*Vinicius Quintao, Brazil*