**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 anesthetic 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
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

Monday, March 04, 2024

Session Date/Time: Monday, March 4, 2024  -  08:00 - 09:00
Nicoll 1 (Level 3)

Paediatric Anaesthesia: Managing the Child with Congenital Heart Disease
Teaching peculiarities of cardiac diseases in children.

08:00  Chair: Session Introduction
       Walid Habre, Switzerland

08:02  Education and Training for Paediatric Cardiac Anaesthesia at a Global Scale
       Viviane Nasr, United States

08:22  Update on Management of Patients Undergoing Cardiac Surgery
       Ken Brady, United States

08:42  Questions and Answers

Session Date/Time: Monday, March 4, 2024  -  09:00 - 10:00
Nicoll 1 (Level 3)

Paediatric Anaesthesia: Sedation in Special Conditions
Sedation around the world.

09:00  Chair: Session Introduction
       Nicola Disma, Italy

09:02  Adverse Events. How to Mitigate the Risk
       Keira Mason, United States

09:14  TCI: Is It the Future Standard for Sedation?
       Pablo Sepulveda, Chile

09:26  Intravenous Alternatives for Sedation
       Vivian YUEN, Hong Kong, China

09:38  Sedation in Patients with Obesity and Obstructive Sleep Apnea
       Mohamed Mahmoud, United States

09:50  Questions and Answers

Session Date/Time: Monday, March 4, 2024  -  11:40 - 12:40
Nicoll 1 (Level 3)

Paediatric Anaesthesia: Paediatric Critical Care Medicine:  Are We There Yet?
PICU around the world.
11:40 Chair: Session Introduction
Santhanam Suresh, United States

11:42 Genesis of Paediatric Critical Care Medicine in North America
Ken Brady, United States

11:57 India Is Racing to Be a Leader in Paediatric Critical Care Medicine
Mahesh Vakamudi, India

12:12 Questions and Answers

Session Date/Time: Monday, March 4, 2024 - 14:00 - 15:00
406 (Level 4)

Paediatric Anaesthesia: Challenges and Lessons in Paediatric Airway Management around the World
Providing evidence of correct airway management.

14:00 Chair: Session Introduction
Nicola Disma, Italy

14:02 Practical Guidelines for the Difficult Airway in Children
Clyde Matava, Canada

14:17 Training for First Attempt Success in the Paediatric Airway
Thomas Riva, Switzerland

14:32 New Visual Aids for Airway Management
Vinicius Quintao, Brazil

14:47 Questions and Answers

Session Date/Time: Monday, March 4, 2024 - 15:00 - 16:00
406 (Level 4)

Paediatric Anaesthesia: My Worst Nightmare in the Operating Room
Learning from errors.

15:00 Chair: Session Introduction
Santhanam Suresh, United States

15:02 Difficult Airway
Nicola Disma, Italy

15:17 Massive Bleeding
Aruna Parameswari Sundaram, India

15:32 Low Blood Pressure
Thomas Engelhardt, Canada

15:47 Questions and Answers

Session Date/Time: Monday, March 4, 2024 - 16:30 - 17:30
Paediatric Anaesthesia: Can Safe Anaesthesia Be Achieved Globally?

Safety in anaesthesia. The Safetots.org initiative around the world.

16:30  Chair: Session Introduction
       Viviane Nasr, United States

16:32  Rights of Children in Hospital
       Karin Becke-Jakob, Germany

16:47  Managing Crisis in Operating Room
       Wangui Thang’a, Kenya

17:02  Achieving a Curriculum in Paediatric Anaesthesia
       Marisol Zuluaga Giraldo, Colombia

17:17  Questions and Answers
**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.

**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

**Paediatric Anaesthesia PBLD: Emergency Laparoscopy in Pierre Robin Syndrome**

PBLD Fee: 20 USD

2 month old male, 4.5 kg, scheduled for emergency laparoscopy for potential bowel obstruction. Diagnosis of Pierre Robin sequence at birth. Child was fed formula about 1 hour ago, and appears to be slightly diaphoretic.

1. How will you induce anaesthesia?
2. Is RSI Indicated?
3. What equipment is needed for the safe delivery of anaesthesia?
4. Can you do this under regional anaesthesia?

**Emergency Laparoscopy in Pierre Robin Syndrome**
Thomas Engelhardt, Canada
Paediatric Anaesthesia PBLD: Laparoscopy for a Child with Fontan Circulation

PBLD Fee: 20 USD

8 year old with Fontan Circulation for single ventricle, presents for emergency laparoscopic Appendctomy under general anaesthesia.

1. What hemodynamics is needed to be monitored for the child before induction of anaesthesia?
2. Technique for induction and maintenance of anaesthesia
3. What monitoring is needed intraoperatively?
4. Does the child need to be transferred to the ICU for postoperative care?

Laparoscopy for a Child with Fontan Circulation

Walid Habre, Switzerland

Paediatric Anaesthesia PBLD: Paediatric Massive Haemorrhage Management

PBLD Fee: 20 USD

6 months old child undergoing cranyosynostosis. Strategies for blood management and transfusion strategies will be discussed.

Paediatric Massive Haemorrhage Management

Susan Goobie, United States

Paediatric Massive Haemorrhage Management

Heidi Meyer, South Africa

Paediatric Anaesthesia PBLD: The Foreign Body at Midnight: Should I Sleep, or Should I Go?

PBLD Fee: 20 USD

2 year old with severe wheezing and coughing presents at 10 PM to the ED, history of choking while eating peanuts in the evening. Suspect a FB in the airway. Chest X-Ray shows diffuse atelectasis.

1. Should we proceed with a bronchoscopy now or wait for the morning?
2. Can a RSI be performed on this child?
3. If mask induction, does NPO status matter?

The Foreign Body at Midnight: Should I Sleep, or Should I Go?

Laszlo Vutskits, Switzerland
Paediatric Anaesthesia PBLD: Chronic Pain Management

17 year male s/p right below elbow amputation presents to your pain clinic with severe refractory complex regional pain syndrome. Current medications include high dose opioids, gabapentin, amitriptyline, and acetaminophen.

1. What other modalities can be provided for pain control?
2. If neuromodulation is an option, is peripheral neuromodulation or central neuromodulation a better option?
3. Could this have been prevented at the time of surgery?

**Chronic Pain Management**

James Rathmell, United States

Santhanam Suresh, United States

Paediatric Anaesthesia PBLD: ICU/ECPR Initiation

6-year-old s/p major bowel resection and small bowel transplantation, in step down ICU has severe hypotension, and is now in severe sinus bradycardia, CPR is initiated. After several doses of epinephrine, patient is now in refractory ventricular tachycardia.

1. When do we initiate ECPR in these children? What criteria is needed for ECPR?
2. What equipment is needed and how do we proceed?
3. What protocol needs to be set up for ECMO initiation in hospitals?

**ICU/ECPR Initiation**

Ken Brady, United States

Paediatric Anaesthesia PBLD: Pain Control in Difficult Situations

14 year with end stage osteosarcoma of right femur now scheduled for above knee amputation. Patient on methadone 10 mg bid, Oxycontin every 6 hrs, gabapentin 400 mg qid, acetaminophen 600 mg every 6 hrs.

1. How do we manage his perioperative pain?
2. What opportunities do we have for regional anaesthesia?
3. Can we prevent phantom pain in this patient?
4. Do we need to scale down his pain meds before surgery?

**Pain Control in Difficult Situations**

Ban Tsui, United States
**Pain Control in Difficult Situations**
Santhanam Suresh, United States

**Session Date/Time:** Tuesday, March 5, 2024  -  14:00 - 15:30

**Exhibition Hall**

**Paediatric Anaesthesia E-Poster Presentations: Cases Management in Paediatric**
All E-Posters will be showcased through a live 6-minute in-person presentation.

**Poster Moderator**
Marisol Zuluaga Giraldo, Colombia

**Poster Moderator**
Walid Habre, Switzerland

**Session Date/Time:** Tuesday, March 5, 2024  -  14:00 - 15:30

**Exhibition Hall**

**Paediatric Anaesthesia E-Poster Presentations: Challenging Paediatric Cases**
All E-Posters will be showcased through a live 6-minute in-person presentation.

**Poster Moderator**
Mahesh Vakamudi, India

**Session Date/Time:** Tuesday, March 5, 2024  -  14:00 - 15:30

**Exhibition Hall**

**Paediatric Anaesthesia E-Poster Presentations: Enhancing Paediatric Research**
All E-Posters will be showcased through a live 6-minute in-person presentation.

**Poster Moderator**
Paul Baker, New Zealand

**Poster Moderator**
Josephine Tan, Singapore

**Session Date/Time:** Tuesday, March 5, 2024  -  14:00 - 15:30

**Exhibition Hall**

**Paediatric Anaesthesia E-Poster Presentations: Global Paediatric Research**
All E-Posters will be showcased through a live 6-minute in-person presentation.

Poster Moderator
Ken Brady, United States  
Heidi Meyer, South Africa

Session Date/Time: Tuesday, March 5, 2024 - 14:00 - 15:30
Exhibition Hall
Paediatric Anaesthesia E-Poster Presentations: My Child Is Unique
All E-Posters will be showcased through a live 6-minute in-person presentation.

Poster Moderator
Vinicius Quintao, Brazil  
Wangui Thang’a, Kenya

Session Date/Time: Tuesday, March 5, 2024 - 14:00 - 15:30
Exhibition Hall
Paediatric Anaesthesia E-Poster Presentations: Paediatric Research Knows No Frontiers
All E-Posters will be showcased through a live 6-minute in-person presentation.

Poster Moderator
Viviane Nasr, United States  
Pablo Sepulveda, Chile

Session Date/Time: Tuesday, March 5, 2024 - 14:00 - 15:30
Exhibition Hall
Paediatric Anaesthesia E-Poster Presentations: Paediatric Research Projects
All E-Posters will be showcased through a live 6-minute in-person presentation.

Poster Moderator
Narasimhan Jagannathan, United States
PROGRAMME

Poster Moderator
Choon Looi Bong, Singapore

Session Date/Time: Tuesday, March 5, 2024 - 14:00 - 15:30
Exhibition Hall

Paediatric Anaesthesia E-Poster Presentations: Paediatric Research Worldwide
All E-Posters will be showcased through a live 6-minute in-person presentation.

Poster Moderator
Vivian YUEN, Hong Kong, China

Poster Moderator
Thomas Riva, Switzerland

Session Date/Time: Tuesday, March 5, 2024 - 14:00 - 15:30
Exhibition Hall

Paediatric Anaesthesia E-Poster Presentations: Paediatric Studies Know No Borders
All E-Posters will be showcased through a live 6-minute in-person presentation.

Poster Moderator
Laszlo Vutskits, Switzerland

Poster Moderator
Aruna Parameswari Sundaram, India

Session Date/Time: Tuesday, March 5, 2024 - 14:00 - 15:30
Exhibition Hall

Paediatric Anaesthesia E-Poster Presentations: Rare Paediatric Cases
All E-Posters will be showcased through a live 6-minute in-person presentation.

Poster Moderator
Karin Becke-Jakob, Germany

Poster Moderator
Santhanam Suresh, United States

Session Date/Time: Tuesday, March 5, 2024 - 15:30 - 16:30
MR 331 (Level 3)
Paediatric Anaesthesia: ERAS Protocols in Children: Developing Standards for Care Worldwide

Improving perioperative care to provide the best possible outcome.

15:30  Chair: Session Introduction
Laszlo Vutskits, Switzerland

15:32  Can Nociception Management Improve Outcome?
Souhayl Dahmani, France

15:47  Regional Anaesthesia for ERAS
Manoj Karmakar, Hong Kong, China

16:02  Novel ERAS Protocols
Santhanam Suresh, United States

16:17  Questions and Answers

Session Date/Time: Tuesday, March 5, 2024 - 16:30 - 17:30
MR 331 (Level 3)

Paediatric Anaesthesia: Paediatric Patient Blood Management (PBM). A Global Perioperative Standard of Care

This session is aimed at presenting and discussing current strategies for PMB in the paediatric age. Through interactive clinical cases and scenarios, attendees will learn how to manage massive haemorrhage and transfusion and preventing blood loss.

16:30  Chair: Session Introduction
Susan Goobie, United States

16:32  PBM as a New Global Standard of Care for Paediatric Blood Health
Susan Goobie, United States

16:47  Paediatric Patient Blood Management (PBM). South African Perspective
Heidi Meyer, South Africa

17:02  PBM in Low to Middle Income Countries
Marisol Zuluaga Giraldo, Colombia

17:17  Questions and Answers
**PROGRAMME**

**Wednesday, March 06, 2024**

**Session Date/Time:** Wednesday, March 6, 2024  -  11:15 - 12:15

**MR 332 (Level 3)**

**Paediatric Anaesthesia: Novel Analgesics and Approaches to Pain Management in Children**

11:15  
**Chair: Session Introduction**

_Wangui Thang'a, Kenya_

11:17  
**An Approach to Opioid Free Pain Management**

_Santhanam Suresh, United States_

11:32  
**Pharmacogenomics: Can We Personalise Analgesia**

_Senthil Sadhasivam, United States_

11:47  
**Traditional vs Novel Analgesics: What Is Best for Children**

_Karin Becke-Jakob, Germany_

12:02  
**Questions and Answers**

**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_