

1st Cleveland Clinic Anesthesia & Pain Management Global Summit

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November 3 - 5, 2023 Cleveland Clinic Abu Dhabi

HYBRID EVENT



Advanced Neuromonitoring Techniques: Processed EEG and Beyond

Faculty:

Dr. Massimo Lamperti, Anesthesiology Institute Cleveland Clinic Abu Dhabi

- Dr. Francisco Lobo, Anesthesiology Institute Cleveland Clinic Abu Dhabi
- Dr. Nitin Manohara, Anesthesiology Institute Cleveland Clinic Abu Dhabi
- Dr. Vinay Byrappa, Anesthesiology Institute Cleveland Clinic Abu Dhabi

Dr. Vania Pinto, Anesthesiology Institute Cleveland Clinic Abu Dhabi

Overview

This course is designed to provide participants with an in-depth understanding of processed EEG and other advanced neuromonitoring tools used in the management of patients under sedation/anesthesia or critically ill. The course will cover the theoretical and practical aspects of these techniques, including the principles of EEG signal processing, interpretation of processed EEG parameters, and the integration of these tools with other clinical parameters. The course will also discuss with Problem-Based learning discussions (PDLDs) the clinical applications of neuromonitoring, including the diagnosis and management of neurological disorders and the optimization of patient outcomes.

Course Objectives

Upon completion of this course, participants will be able to:

- Describe the principles of EEG signal processing and the interpretation of processed EEG parameters.
- Understand the clinical applications of processed EEG and other neuromonitoring tools.
- Identify the limitations and pitfalls of these techniques.
- Integrate neuromonitoring data with other clinical parameters to optimize patient outcomes.
- Discuss emerging trends and future directions in the field of neuromonitoring.

Basic Organization

Date: 3-5 November 2023 Time: Morning time (10:00 am – 13:00 pm) Participants: 12 / session

Course Outline

Day 1: <u>Session 1: Role of EEG in neuromonitoring (Dr. M Lamperti)</u> How does it work? How do I do? How should I do? Pro-con discussion



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Session 2: EEG Monitoring in the OR (Dr. F Lobo) Effect of sedatives on EEG Interpretation of processed EEG parameters in the OR Clinical examples of processed EEG during sedation/general anesthesia

Session 3: PDLD (Dr. M. Lamperti)

How I manage pEEG in difficult patients.

Day 2:

Session 4: Functional monitoring in the OR (IOM) (Dr. N. Manohara) What is this? How can I do it? Indications for IOM Interpretation of IOM in the OR and critically ill patients

<u>Session 5: Other Neuromonitoring Techniques (Dr. Vinay Byrappa)</u> Transcranial Doppler (TCD) monitoring: how I do? Intracranial pressure (ICP) monitoring: when, how and who should be monitored Cerebral oximetry monitoring: the discovery of the Sacre Graal?

Session 6: PBLD (Dr. V. Byrappa- Dr. N. Manohara)

The strange case of Mr. Brown

Day 3: NeuroSON

Session 7: Clinical Applications and scenarios of Cerebral sonography (Dr. M. Lamperti- Dr. V. Byrappa- Dr. N. Manohara) Black and white cerebral sonography Optic Nerve Sheath measurements Basic TCD

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Conclusion

This course will provide participants with a comprehensive understanding of processed EEG and other advanced neuromonitoring tools used in the management of perioperative and critically ill patients. Participants will learn the theoretical and practical aspects of these techniques and their clinical applications, as well as the integration of neuromonitoring data with other clinical parameters to optimize patient outcomes. The course will also cover the limitations and pitfalls of neuromonitoring and emerging trends in the field.

This course will not have a hands-on training according to the last DOH regulations.