

1st Cleveland Clinic Anesthesia & Pain Management Global Summit

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Target Controlled Infusion (TCI) and Total Intravenous Anesthesia (TIVA)

Faculty

Francisco Lobo, Anesthesiology Institute Cleveland Clinic Abu Dhabi
Frank Engbers, Leiden University, The Netherlands
Hernan Boveri, Italian hospital, Buenos Aires, Argentina
Gavin Kenny, Emeritus Professor, Glasgow University, UK
Andreia Costa, Hospital da Luz, Lisbon, Portugal
Michelle Introna, Besta Neurological Institute, Milan, Italy
Anthony Absalom, Groningen University, The Netherlands
Alex Ruzhyla, Anesthesiology Institute Cleveland Clinic Abu Dhabi
Siarhei Kastsiuchenka, Anesthesiology Institute Cleveland Clinic Abu Dhabi

Introduction

The aim of this Course is to refresh participants on their knowledge and skills related with multimodal Total Intravenous Anesthesia (TIVA), Target Controlled Infusions (TCI).

Worldwide known experts in the field will cover the basic applied pharmacology of intravenous anesthetic drugs reviewing the foundations of TCI and new PkPd models for propofol, opioids and dexmedetomidine. In addition, how to do TIVA for special populations will be reviewed.

The simulation app TivatrainerX will be used throughout the Course to show several PkPd features of TCI of different IV anesthetic drugs.

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Course objectives

- understand pharmacokinetics and pharmacodynamics of IV anesthetic drugs
- apply PkPd to the concept of Target Controlled Infusion (TCI)
- rationale use of TIVA/TCI in special populations of patients
- use of TivatrainerX to simulate different scenarios and TIVA modalities

Basic Organization

Date: 3-5 November 2023

Time: Morning time (10:00 am - 13:00 pm)

Participants: 12 / session



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Course outline

Day 1

10:00 - 10:45 Doing multimodal TIVA: advantages and general principles - Francisco Lobo

10:45 - 11:15 Pharmacokinetics made simple - Anthony Absalom

11:15 - 11:45 Pharmacodynamics: effect-site and KeOs for dummies - Frank Engbers

11:45 - 12:15 Allometric Scaling - Hernan Boveri

12:15 - 13:00 Discussion

Day 2

10:00 - 10:30 Target Controlled Infusions: foundations and clinical application - Gavin Kenny

10:30 - 11:15 New models for propofol, opioids and dexmedetomidine - Michele Introna

11:15 - 12:00 Common mistakes when doing TIVA - Siarrhei Kastsiuchenka

12:00 - 13:00 Discussion

Day 3

10:00 - 10:30 TIVA TCI in elderly - Andreia Costa

10:30 - 11:00 TIVA TCI in pediatrics - Patrício González Pizarro

11:00 - 11:30 TIVA TCI in the very obese - Alex Ruzhyla

11:30 - 12:00 Playing with TivatrainerX- Francisco Lobo

12:00 - 13:00 Discussion

Conclusion

This workshop will provide an advanced education on the pharmacology and pharmacokinetic of the sedative agents used for sedation and anesthesia. The participants to this course will be involved in simulations on administration of different sedative and analgesic agents according to the latest models applied in the operating rooms and in ICU.