

Luncheon Seminar (excerpt) of JAAM46

Participants of all luncheon seminars will be required to show their Tickets for Luncheon Seminar, until seminar beginning time. Tickets for Luncheon Seminar are provided PACIFICO YOKOHAMA Conference center 1st fl. "Foyer". (see p.3)

19. November (Day 1)

12:00 - 13:00 Site 2 : Room 503 (5th fl.)

Luncheon Seminar 2

Chairperson: Tokyo Metropolitan Children's Medical Center (Japan) Naoki Shimizu

LS2 Improving the Certainty and Probability of Successful Resuscitation for Children...Past, Present and Future

Endowed Chair, Professor, Department of Anesthesiology and Critical Care Medicine Medical Director, CHOP Center for Simulation, Advanced Education, and Innovation Associate Director, University of Pennsylvania Center for Resuscitation Science (USA)

Vinay Nadkarni

40 million children are at risk for respiratory failure and shock evolving to cardiac arrest each in the USA alone. Of these, >10,000/year suffer cardiac arrest, with favorable outcomes in 5-40%. Clinical deterioration events requiring emergency response for respiratory failure and shock are 30 times more common than cardiac arrest (~ 300,000/year), and are a major source of preventable harm. All systems of care that provide care for children require pediatric-specific medical devices, training, detection and response systems to enhance safe and accountable care. We will review the pioneering breakthroughs and innovative strategies to prevent, prepare for, and optimize resuscitation with a focus on long-term quality of life. Insights gained from examples of extraordinary care, pioneering translational research, and exceptional global implementation, training and support will launch meaningful discussions of how the past and present "learning laboratories" will lead to breakthroughs that will revolutionize the future approach to resuscitation.

(Sponsored: Asahi Kasei ZOLL Medical Corporation)

19. November (Day 1)

12:00 - 13:00 Site 3 : Room 501 (5th fl.)

Luncheon Seminar 3

Chairperson: Kagawa University (Japan) Yasuhiro Kuroda

**LS3-1 (in Japanese) 地域全体で取り組む重症心不全・CPA 患者の治療—
新しいドクターカーシステム構築から植え込み型 VAD ハブ施設設立まで**

横浜市立大学大学院 医学研究科 救急医学教室

竹内 一郎

LS3-2 Global trends on ECPR: Let's join a global resuscitation network

Chairman, Emergency Medicine, Donald and Barbara Zucker School of Medicine at Hofstra(USA)

Lance B. Becker

As ECPB is performed in more and more sites, a global resuscitation network would advance this life saving science at a far more rapid pace than our current trajectory. Consider that a typical single center of resuscitation excellence doing ECPB may only attempt ECPB on a handful of patients each year – but by comparison a global network could attempt resuscitation on hundreds of patients. This would be sufficient to conduct ongoing randomized controlled adaptive trials that would answer many questions about the optimal conditions for ECPR. Without such a network it is unlikely that we will rapidly progress to gain these answers. It is time for the resuscitation community to join together globally, to share data, to work together to design controlled studies, and to further the science of ECPR plus adjuvant therapies.

(Sponsored: Terumo Corporation)

20. November (Day 2)

12:20 - 13:20 Site 3 : Room 501 (5th fl.)

Luncheon Seminar 14

Chairperson: Nippon Medical School (Japan) Hiroyuki Yokota

LS14 Multimodal Neuromonitoring in Neurocritical Care

Anesthesiology and Intensive Care Medicine Center for Cardiac Arrest at Lund University (Sweden)

Hans Friberg

Introduction: The pathophysiology of brain injury in critically ill patients is complex and involves several detrimental pathways as well as pathways important for repair and recovery. While brain injury often is a result of a primary condition such as stroke or trauma, it is commonly aggravated by secondary insults. A clinical neurological examination is the single most important component of neuromonitoring but is often not enough, especially in the more severely injured patients in whom sedation is mandated. In this review, we will discuss some clinically available neuromonitoring techniques including neurophysiology (EEG/cEEG/SSEP), brain tissue oxygen monitoring, automated quantitative pupillometry and biomarkers of brain damage in biological tissues. How these techniques can be integrated in multimodal algorithms to improve diagnostic procedures, individualize therapy and assist in prognostication will be addressed.

Aims: The overall aims of neuromonitoring in the ICU:

- to improve the understanding of cerebral disease in the critically ill
- to identify worsening neurological conditions and secondary brain insults
- to collect and combine substrate for guidance and individualization of therapy
- to assist in prognostication

Preliminary data: Data from a prospective observational sub-study (N=134) of the Target Temperature Management Trial (TTM-trial) investigating the temporal development of epileptiform activity and EEG background and the association to outcome will be presented. Data from a prospective European multicentre study (N=456) examining the accuracy of automated quantitative pupillometry will be presented. Established as well as novel biomarkers for brain damage in biological tissues will be presented and discussed.

Conclusion: A careful clinical neurological examination is a fundamental part of neuromonitoring. In order to individualize care and optimize therapy for the critically ill patient in Neurocritical Care, relevant neuromonitoring techniques should be added and integrated in multimodal algorithms.

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