# 11<sup>th</sup> European Postgraduate Course in Neonatal and Pediatric Intensive Care Medicine

March 12-14, 2015 Workshops March 11, 2015

University Children's Hospital, Inselspital, Berne, Switzerland



**Accreditation for CME** 

Supported by University Hospital, Inselspital, Berne

Endorsed by ESPNIC – The European Society of Paediatric and Neonatal Intensive Care

**Final program** 

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#### Welcome address

Dear colleagues and friends,

We are proud to announce the 11th European Postgraduate Course in Neonatal and Pediatric Intensive Care Medicine.

The Course will take place on March 12-14, 2015, at the Auditorium Ettore Rossi, University Children's Hospital, Inselspital, in Berne, Switzerland. For the first time we plan two runs of Precourse Workshops on March 11, 2015 (14:00h – 18:00h).

Again, internationally renowned speakers will present hot topics pertinent to young and senior physicians and discuss challenging cases in the clinical fields of emergency and intensive care medicine, neonatology and anesthesia.

It would be fantastic if you would join the next Bernese Postgraduate Course.

Sincerely yours

Bendicht P. Wagner, MD Course Chairperson

### **Organization**

Damian Hutter, Berne<sup>1</sup> Scientific Committee:

Thomas Riedel, Berne<sup>2</sup> Andreas Schibler, Brisbane<sup>3</sup> Luregn Schlapbach, Brisbane<sup>1</sup>

Bendicht Wagner, Berne (Chairperson)<sup>1</sup>

<sup>1</sup>No COI declared

<sup>2</sup>COI: Acutronic Medical Systems AG <sup>3</sup>COI: Fisher & Paykel Healthcare

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#### **Accreditation**

The workshops (March 11, 2015) are accredited by the following

national societies:

Swiss Society of Paediatrics

(SGP/SSP): Workshop 1: 3 Credits

Workshops 2&3:

for each workshop 1.5 Credits

Swiss Society for Neonatology

(SGN/SSN): Workshop 1: 3 Credits

Workshops 2&3:

for each workshop 1.5 Credits

(March 12-14, 2015) is accredited by the following The course

national societies:

Swiss Society of Paediatrics

(SGP/SSP): 17.5 Credits

Swiss Society for Intensive

Care Medicine (SGI/SSI): 15 Credits

Swiss Society for Emergency and

Rescue Medicine

(SGNOR/SSMUS): 14 Credits

Swiss Society for Neonatology

(SGN/SSN): 17.5 Credits

The Course (March 11 – 14, 2015) has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists.

11th European Postgraduate Course in Neonatal and Pediatric Intensive Care Medicine is designated for a maximum of, or up to 18 European CME credits (ECMEC).

### **Faculty**

**Bell Michael** Professor, Critical Care Medicine, Children's

Hospital, University of Pittsburgh, Pittsburgh

**Breschan Christian** MD, Departement of Anaesthesia,

Klinikum Klagenfurt, Klagenfurt

Demirakça Süha MD. Universitätsmedizin Mannheim.

Universitätsklinik für Kinder- und Jugendmedizin.

Mannheim

**Ehrenkranz Richard** Professor, Departement of Neonatal-Perinatal

Medicine, Yale

University School of Medicine, New Haven

Professor, Zentrum für Kinder- und Jugend-**Gehring Stephan** 

medizin. Universitätsmedizin der Johannes

Gutenberg-Universität Mainz, Mainz

**Goldstein Stuart** Professor, Center for Acute Care Nephrology,

Cincinnati Children's Hospital Medical Center,

Cincinnati

**Haas Thorsten** PD Dr. med., Departement of Anesthesiology,

University Children's Hospital Zürich, Zürich

**Huth Ralf** MD, Interdisziplinäre Kinderintensivstation,

University Medicine Departement of Pediatrics,

Mainz

Joosten Koen Professor, Pediatric ICU, Sophia Children's

Hospital, Erasmus Medical Center, Rotterdam

**Kavanagh Brian** Professor, Departement of Anesthesia,

University of Toronto, Toronto

### **Faculty**

**Kilbaugh Todd J.** Professor, Children's Hospital of Philadelphia,

University of Pennsylvania, Philadelphia

**Kluckow Martin** Professor, Neonatal ICU, Royal North Shore

Hospital & University of Sydney, Sydney

**Kreiter Bianca** MD, Divison of Pediatric Intensive Care,

University Children's Hospital, Berne

**Lück Bettina** MD, Klinik für Kinderkardiologie, Herzzentrum

Leipzig, Leipzig

MacLaren Graeme Professor, Cardiothoracic ICU, National Univer-

sity Hospital, Singapore

**Nuoffer Jean-Marc** PD Dr. med., Division of Pediatric Endocrinology

and Metabolism, University Children's Hospital,

Berne

**Pfammatter Jean-Pierre** Professor, Division of Pediatric Cardiology,

University Children's Hospital, Berne

**Riedel Thomas** MD, Divison of Pediatric Intensive Care,

University Children's Hospital, Berne

Schibler Andreas Professor, Pediatric ICU, Lady Cilento Children's

Hospital, South Brisbane

Schlapbach Luregn Professor, Pediatric ICU, Lady Cilento Children's

Hospital, South Brisbane

**Schwartz Steven** Professor, Departement of Critical Care Medicine,

the Hospital for Sick Children, Toronto

### **Faculty**

**Tabbutt Sarah** Professor, Cardiac Intensive Care, Benioff

Children's Hospital, San Francisco

van Kaam Anton Professor, Neonatal ICU, Emma Children's Hos-

pital, Amsterdam Medical Center, Amsterdam

**Wagner Bendicht** PD Dr. med., Divison of Pediatric Intensive Care,

University Children's Hospital, Berne

Weidenbach Michael PD Dr. med., Klinik für Kinderkardiologie,

Herzzentrum Leipzig, Leipzig

| 08:30         | Welcome<br>Ben Wagner                                                                                                                        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 08:35         | Clinical decision making in critical care medicine:<br>strengths and limitations of kinds of medical<br>knowledge<br>Brian Kavanagh, Toronto |
|               | Content: Overview lecture to include criticism to GRADE                                                                                      |
| 09:00 – 12:45 | Session I – Fluid and shock<br>Chair: Brian Kavanagh, Toronto                                                                                |
| 09:00         | Basics of fluid physiology<br>Stuart Goldstein, Cincinnati                                                                                   |
|               | Content: Overview lecture to include the basics such as in Am J Kid Dis 2014                                                                 |
| 09:30         | Cardiovascular physiology<br>Steve Schwartz, Toronto                                                                                         |
|               | Content: Overview lecture to include mean systemic filling pressure                                                                          |
| 10:00         | Septic shock<br>Graeme MacLaren, Singapore                                                                                                   |
|               | Content: Overview lecture to focus on important basics and controversies                                                                     |

| 10:30 – 11:00 | Coffee break                                                                                                                                            |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00         | Advances in recognition, resuscitation, and stabilization of the critically ill child Todd J. Kilbaugh, Philadelphia                                    |
|               | Content: Overview lecture to focus on pericardiac arrest management, to include management of traumatic arrest                                          |
| 11:30         | Acute kidney injury and management of fluids / hemodynamics Stuart Goldstein, Cincinnati                                                                |
|               | Content: Overview lecture to include AKI definitions, and the role of fluid bolus, maintenance fluids, sodium, CVP, MABP on AKI                         |
| 12:00         | Case: Challenging pediatric septic shock: from initial suspicion to maximal intensive care medicine Todd J. Kilbaugh, Graeme MacLaren, Andreas Schibler |
|               | Content: What variables/goals/ echocardiography to guide first line treatments; what variables/goals to guide fluid, vasoactive, hormones, glucose      |
| 12:45 – 14:00 | Lunch break                                                                                                                                             |

| 14:00 – 17:00 | Session II - The critically ill neonate postnatally Chair: Martin Kluckow, Sydney                            |
|---------------|--------------------------------------------------------------------------------------------------------------|
| 14:00         | Early delivery room management –<br>a gentler approach<br>Martin Kluckow, Sydney                             |
|               | Content: Overview lecture to include delayed cord clamping                                                   |
| 14:20         | How to minimize lung injury during compromised pulmonary transition perinatally Anton van Kaam, Amsterdam    |
|               | Content: Overview lecture to include targets, modes of ventilation and therapeutics                          |
| 14:50         | Deconstructing the syndrome of persistent<br>pulmonary hypertension of the newborn<br>Martin Kluckow, Sydney |
|               | Content: Overview lecture to include pathophysiology, diagnostics, therapeutics                              |
| 15:10         | Oxygen targets in the premature infant:<br>lessons learned from RCT<br>Richard Ehrenkranz, New Haven         |
|               | Content: Overview lecture to include the O2-targets from birth to longterm BPD                               |
| 15:30 – 16:00 | Coffee break                                                                                                 |

| 16:00         | Case: Neonatal resuscitation and stabilisation: more than APGAR driven Richard Ehrenkranz, Martin Kluckow, Anton van Kaam |
|---------------|---------------------------------------------------------------------------------------------------------------------------|
|               | Content: What respiratory support (recruitment, tidalvolume, pressure), what hemodynamic monitoring, what agents?         |
| 16:45 – 17:15 | Session III - Inborn metabolic disease<br>Chair: Koen Joosten, Rotterdam                                                  |
| 16:45         | Inborn metabolic disease: Emergency evaluation and treatment Jean-Marc Nuoffer, Berne                                     |
|               | Content: Overview lecture to include pathophysiology, diagnostics, therapeutics                                           |
| 17:15 – 17:45 | Industry Session - Details see page 21                                                                                    |
| 17:45         | End of day one                                                                                                            |

| 08:30 – 10:00 | <b>Session IV - Nutrition</b> Chair: Koen Joosten, Rotterdam                                                              |
|---------------|---------------------------------------------------------------------------------------------------------------------------|
| 08:30         | Nutrition in the critically ill: Myths and misconceptions Koen Joosten, Rotterdam                                         |
|               | Content: Overview lecture to include similar topics such as in CCM 2014;42:962                                            |
| 09:00         | Nutritional management in the sick premature infant Richard Ehrenkranz, New Haven                                         |
|               | Content: Overview lecture to include important basics and controverse issues                                              |
| 09:30         | Neonatal and pediatric cases: Nutritional assessment and supply in special circumstances Richard Ehrenkranz, Koen Joosten |
|               | Content: Perioperative case, septic case, sick malnourished patient                                                       |
| 10:15 – 10:45 | Coffee break                                                                                                              |

| 10:45 – 12:45 | <b>Session V - Lung</b> Chair: Andreas Schibler, Brisbane                                                                                          |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:45         | <b>Update on respiratory physiology</b><br>Andreas Schibler, Brisbane                                                                              |
|               | Content: Overview lecture to include transpulmonary pressure, strain, stress, work of breathing                                                    |
| 11:15         | Ventilation induced lung injury: how to prevent in clinical practise? Brian Kavanagh, Toronto                                                      |
|               | Content: Overview lecture: from basics to new aspects                                                                                              |
| 11:45         | Weaning the mechanically ventilated preterm infant<br>Anton van Kaam, Amsterdam                                                                    |
|               | Content: Overview lecture about various ventilatory modes e.g. volume target ventilation, NAVA                                                     |
| 12:05         | Case: Challenging pediatric respiratory failure<br>Brian Kavanagh, Andreas Schibler                                                                |
|               | Content: How to recruit the lung, when to limit tidalvo-<br>lume and pressure, prone positioning, high frequency<br>ventilation, muscle relaxation |
| 12:45 – 14:00 | Lunch break                                                                                                                                        |

| 14:00 – 17:45 | Session VI - Heart<br>Chair: Steve Schwartz, Toronto                                         |
|---------------|----------------------------------------------------------------------------------------------|
| 14:00         | Perioperative stage 1 in Hypoplastic Left Heart<br>Syndrome<br>Steve Schwartz, Sarah Tabbutt |
|               | Content: Overview lecture including individualized approaches to HLHS                        |
| 14:45         | The Fontan patient in the intensive care unit<br>Sarah Tabbutt, San Francisco                |
|               | Content: Overview lecture to include pathophysiology, diagnostics, therapeutics              |
| 15:05         | Residual left heart lesions in the biventricular circulation Steve Schwartz, Toronto         |
|               | Content: Overview lecture to include pathophysiology, diagnostics, therapeutics              |
| 15:25         | Mechanical support in failing congenital<br>heart disease<br>Sarah Tabbutt, San Francisco    |
|               | Content: Overview lecture                                                                    |
| 15:45 – 16.15 | Coffee break                                                                                 |

16:15 **Emergency treatment of dysrhythmias in** 

the neonate and child

Jean-Pierre Pfammatter, Berne

Content: Overview lecture

16:45 **Case: Postoperative low cardiac output syndrome:** 

the deteriorating infant

Steve Schwartz, Sarah Tabbutt

Content: Hypovolemia, SVR, PVR, cardiopulmonary

interactions

17:30 End of day two

| 07:45 – 08:15 | Industry Session – Details see page 22                                                                              |
|---------------|---------------------------------------------------------------------------------------------------------------------|
| 08:30 – 10:30 | <b>Session VII - Brain</b> Chair: Todd J. Kilbaugh, Philadelphia                                                    |
| 08:30         | Refractory status epilepticus<br>Michael Bell, Pittsburgh                                                           |
|               | Content: Overview lecture to include pathophysiology, diagnostics, therapeutics                                     |
| 08:50         | Risk factors for neonatal intraventricular<br>hemorrhage and periventricular leucomalacia<br>Martin Kluckow, Sydney |
|               | Content: Overview lecture to include cerebrovascular reactivity disturbances                                        |
| 09:10         | Severe acute noninfectious encephalitis Michael Bell, Pittsburgh                                                    |
|               | Content: Overview lecture; to include FIRES and its differential diagnosis and treatment                            |
| 09:30         | Therapeutic hypothermia update Todd J. Kilbaugh, Philadelphia                                                       |
|               | Content: Overview lecture to include neonatal, pediatric and adult data                                             |

| 10:00         | <b>Organ donation after death in the neonate</b> Michael Bell, Pittsburgh                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------|
|               | Content: Overview lecture including donation after brain death and cardiac death                                         |
| 10:30 – 11:00 | Coffee break                                                                                                             |
| 11:00 – 12:45 | Session VIII - Organ replacement<br>Chair: Graeme MacLaren, Singapore                                                    |
| 11:00         | Type of renal replacement in the critically ill<br>Stuart Goldstein, Cincinnati                                          |
|               | Content: Overview lecture to include CRRT vs intermittent RRT, citrate vs heparin; and application in metabolic diseases |
| 11:30         | ECLS overview Graeme MacLaren, Singapore                                                                                 |
|               | Content: Overview lecture to include neonatal and pediatric aspects                                                      |
| 12:00         | Neonatal and Pediatric Cases: ECLS indication and goals Brian Kavanagh, Todd J. Kilbaugh, SarahTabbutt                   |
|               | Content: respiratory failure, cardiac failure, CPR, sepsis                                                               |
| 12:45         | Closing remarks – end of the course                                                                                      |

#### Workshops, March 11, 2015

**Workshop 1.** duration 180 minutes. 14:00 – 15:30 and 16:00 – 17:30

Chair: Michael Weidenbach, Leipzig

Co-Chair: Bert Hennig, Berne

**Topic** Functional and congenital heart disease echocardiography

for neonatal and pediatric intensivist

Content Theory and hands-on (phantom, child) how to use echocar-

diography as a tool for hemodynamic evaluation and how to

identify critical heart defects (segmental analysis)

**Workshop 2,** duration 90 minutes, 14:00 – 15:30 or 16:00 – 17:30

Chair: Christian Breschan, Klagenfurt

Co-Chair: Bianca Kreiter, Berne

**Topic** Ultrasound guided vascular access in neonates and children

Content Theory (techniques) and hands-on (phantom, child) how to

use ultrasound and how to perform percutaneus vascular

access with the aid of ultrasound

**Workshop 3,** duration 90 minutes, 14:00 – 15:30 or 16:00 – 17:30

Chair: Ralf Huth, Mainz Co-Chair: Tom Riedel, Berne

**Topic** Difficult airway management in the critically ill neonate and child

Content Theory (proposals about management) and hands-on

(phantoms, fiberoptics, video laryngoscopies, LAMA) how to

manage difficult airway



#### **General Information**

**Venue** Auditorium Ettore Rossi, Inselspital (Kinderklinik),

Berne/Switzerland. Bus n° 11 (direction «Güterbahnhof») from main railway station to Inselspi-

tal, bus stop «Inselspital».

Official language English, no simultaneous translation

**Beginning and** 

**end of workshops** Wednesday, March 11, 2015, 14:00 – 17:30

Beginning and Thursday, March 12, 2015, 08:30 h end of the Course Saturday, March 14, 2015, 13:00 h

**Administrative Secretariat** BBS Congress GmbH, P.O. Box 604,

before and after the Course CH-3000 Berne 25

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Secretariat Foyer Ettore Rossi, Inselspital (Kinderklinik),

during the Course CH-3010 Berne

Phone: +41 79 273 06 71

Registration Please see www.intensivecarecourse.com

**Registration Desk –** Each registered participant will receive his/her **Opening hours** Each registered participant will receive his/her personal documentation at the registration desk.

located in the Foyer Ettore Rossi, Children's

Hospital, Inselspital.

 Wednesday
 March 11, 2015
 12:00 – 18:00 h

 Thursday
 March 12, 2015
 07:30 – 19:00 h

 Friday
 March 13, 2015
 08:00 – 18:00 h

 Saturday
 March 14, 2015
 08:00 – 13:00 h

#### **General Information**

#### **Registration fees**

#### **ESPNIC** members:

(prices in Swiss Francs CHF)

500 CHF (until Dec. 15, 2014), 600 CHF

(from Dec. 16, 2014) Non members:

600 CHF (until Dec. 15, 2014), 700 CHF

(from Dec. 16, 2014)

The registration fee includes lunches (March 12)

& 13) and coffee breaks (March 12-14).

#### Remittance of fees

The fees have to be paid in Swiss Francs – clearly stating name of the participant – either by bank transfer to the IBAN account below or by credit card

#### Cancellation

Refund less 25% administrative charge may be applied for in writing until February 1st. 2015. After this date no refund can be made for cancellations.

The participant acknowledges that he/she has no right to lodge dammage claims against the organizers should the holding of the Course be hindered or prevented by unexpected political or economic events or generally by force majeure, or should the non-appearance of speakers or other reasons necessitate program changes. With his/her registration the participant accepts

this proviso.

Bank: Credit Suisse, Berne

**BIC/SWIFT: CRESCHZZ30A** 

IBAN: CH87 0483 5021 1255 4001 0 Account holder: BBS Congress GmbH,

CH-3000 Berne 25

#### **General Information**

**Accommodation** Rooms can be booked online with

Berne Incoming GmbH.

Please see www.intensivecarecourse.com

**Podcast** The participants will have access to podcasts of

the conferences after the course.

Course website www.intensivecarecourse.com

Internet access Free WiFi access for all participants throughout

the course area.

As we are not sure having reached all interested colleagues by our mailing, we kindly ask you to notify your collaborators/colleagues about

this meeting. Thank you!

### **Industry Sessions**

Thursday, March 12, 2015, 17:15 - 17:45

Massive bleeding after trauma or surgery: Update on evaluation and treatment

Thorsten Haas, Zürich

Organized by CSL Behring AG, Berne, Switzerland

#### Content

The aetiology of haemostatic changes during major pediatric surgery is multifactorial and may be related to dilutional coagulopathy, hyperfibrinolysis, and surgical complexity. Fibrinogen is the first coagulation factor that achieves a critical low value during massive blood loss, while all other factors seem to be less affected by blood loss and hemodilution. Fast and reliable monitoring of the entire coagulation process (e.g. by thromboelastometry) might be of great value for detection of coagulopathy and guidance on effective coagulation management. Although the transfusion of fresh frozen plasma (FFP) has been recommended in several guidelines, the use of coagulation factors might offer an alternative and potentially superior approach in managing perioperative coagulation disorders. The implementation of a thromboelastometry-guided bleeding management in children seems to be associated with a considerable reduction of intraoperative transfusion requirements and thereby a decrease of transfusion-related direct costs

### **Industry Sessions**

Saturday, March 14, 2015, 07:45 - 08:15

#### **NAVA** beyond triggering

Andreas Schibler & Luregn Schlapbach, Brisbane

Organized by Maguet Vertrieb und Service Deutschland GmbH,

Rastatt, Germany

Content Neuronally adjusted ventilatory assist (NAVA) has been pro-

> moted as a novel device to improve triggering and patientventilator synchronisation. In addition, the use of NAVA opens up new perspectives to monitor and understand respiratory physiology in a patient. Indeed, the availability of the electric activity of the diaphragm is not only a powerful monitoring tool for the intensivist, but at the same time gives access to biologically variable ventilation. We will illustrate how using NAVA may change the way we think about our patients on a

number of examples from research and case series.

#### **Main Sponsor**

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### **12th**

European Postgraduate Course in Neonatal and Pediatric Intensive Care Medicine

University Children's Hospital Inselspital, Berne, Switzerland March 16-18, 2017

### Join us in 2017

### **MINSEL**SPITAL

UNIVERSITÄTSSPITAL BERN HOPITAL UNIVERSITAIRE DE BERNE BERN UNIVERSITY HOSPITAL



#### Course Chairperson

Bendicht Wagner, M.D., Division of Pediatric Intensive Care, University Children's Hospital, Inselspital, CH-3010 Berne, Switzerland.

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#### Websites

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