Cardiovascular Management of the Neonate

March 22-24, 2018
Tremendous uncertainty and controversy exists within the management of neonates with congenital heart disease. There are several challenging issues that affect making decisions about this emerging population. The team of neonatologists, pediatric cardiologists, pediatric cardiac intensivists and pediatric cardiothoracic surgeons need to understand the available options and most up-to-date information on surgery, non-surgical interventions, medicines available and management practices to assure the best care for these infants.

It is essential to bring all providers involved in the care of these patients together to ensure the best possible outcomes. The sharing of ideas in order to learn from each other, constant challenging of norms and pushing the limits of current accepted treatment modalities are what make a truly fulfilling and successful conversation and conference. NeoHeart provides the venue for these conversations.

NeoHeart is dedicated to innovation of care for the neonate with congenital heart disease. NeoHeart will provide the environment to advance medical knowledge and bedside practical management. Whether through echocardiography or ECMO workshops or critical care thinking, each attendee will be pushed to think outside of the “box.” Attendees will walk away with new and innovative ideas and the potential to be part of a leading-edge team as they have the venue and access to experts in the field at their fingertips.

**Topics will include:**

- Management of pulmonary hypertension
- Neonatal hemodynamics
- Preterm infants and congenital heart disease
- Neonatal cardiac innovations
- Neurodevelopmental outcomes in neonates with cardiac disease
- Fetal interventions and the delivery of neonates with cardiac disease
- Family dynamics in the care of infants with cardiac disease
- Congenital diaphragmatic hernia
- Dynamic echocardiography
- Extracorporeal membranous oxygenation in neonates with heart disease

**Course objectives:**

At the completion of this program, participants will be able to:

- Construct a team approach among the NICU, CVICU and cardiology on cardiovascular management of the neonate with cardiac disease.
- Determine treatment options in the premature neonate with congenital heart disease.
- Follow suggested pre- and post-operative management guidelines for the neonate with complex heart disease.
- Use suggested state of the art management of pulmonary hypertension.
- Consider physiology of the neonatal myocardium and hemodynamics of shock.
- Discuss the neonatal nephron and acute kidney injury.
- Review current controversies of ductus arteriosus management.
- Employ suggested strategies for optimizing long-term, neurodevelopmental outcomes.
- Describe the innovations involved in neonatal cardiac care.
- Interpret cardiac volume state, contractility and elevated pulmonary vascular resistance.

**Registration**

<table>
<thead>
<tr>
<th>Category</th>
<th>Early Bird Price (Until 2/5/18)</th>
<th>Regular Price</th>
</tr>
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<tr>
<td>Physician</td>
<td>$650</td>
<td>$750</td>
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<tr>
<td>RN/NP/PA</td>
<td>$350</td>
<td>$450</td>
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<tr>
<td>Resident/Fellow</td>
<td>$350</td>
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<tr>
<td>Pre-conference workshop</td>
<td>$250</td>
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<tr>
<td>One-day conference (RN/NP/PA only)</td>
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<tr>
<td>Pre-conference workshop (RN/NP/PA only)</td>
<td>$100</td>
<td>$125</td>
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</table>
Abstract submission

Call for abstracts submission deadline: 11:59pm (CST) Friday, January 26, 2018
Notification of acceptance: Friday, February 16, 2018

The course faculty will select the recipients of the annual Outstanding Physician Scientist Award and the annual Outstanding Nurse Scientist Award. The award winners will be recognized at the plenary session on Friday March 23, 2018, and will receive a complimentary registration for NeoHeart 2019 and a $500 travel grant.

On March 23, 2018, the top abstracts will be presented as oral presentations.

Course participants are encouraged to submit abstracts to be considered for the annual Outstanding Physician Scientist and Nurse Scientist awards. Abstracts will be accepted in all aspects of cardiovascular care, including cardiac issues in the neonatal and pediatric intensive care units, cardiovascular nursing, inpatient and outpatient cardiology, surgical, anesthesia and perfusion research and basic cardiovascular science.

Abstracts are graded by the faculty in a blinded fashion.

Abstract acceptance does not include course registration fee or hotel accommodations.

Accreditation

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Texas Medical Association (TMA) through the joint providership of Cook Children’s and Neonatal Heart Society. Cook Children’s is accredited by TMA to provide continuing medical education for physicians. Cook Children’s designates this live activity for a maximum of 21.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. The following courses: State of the Art Management of Hypoplastic Left Heart Syndrome, Breakout E: Living with Heart Congenital and Disease, Neonatal Cardiac Care as a Continuum of Cardiac Care have been by designated Cook Children’s for 3.75 credits of education in medical ethics and/or professional responsibility.

Approval statement

Cook Children’s Medical Center is an approved provider of continuing nursing education by the Texas Nurses Association - Approver, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation. This CNE activity has been jointly provided by Cook Children’s Medical Center collaboratively with Neonatal Heart Society.

This activity provides up to 16.75 contact hours. You must sign in, attend each session in its entirety and complete and return the evaluation tool.

Americans with Disabilities Act

We want to provide individuals who have disabilities the appropriate services necessary to participate in this program. If you need any auxiliary aids or services identified in the Americans with Disabilities Act in order to attend this program, please call 682-885-4170.

Cancellation policy

A written notice of cancellation must be received by Feb. 28, 2018. A $100 cancellation fee will be assessed. After Feb. 28, cancellation requests cannot be honored. Substitutions are allowed. Questions: 682-885-3841 or education@cookchildrens.org.
Pre-conference workshops

Thursday, March 22 at Cook Children’s Medical Center

1. Introduction to neonatal and pediatric echocardiography

This workshop provides both didactic and hands-on training of neonatal and pediatric transthoracic echocardiography. The workshop will include an illustrative lecture reviewing the fundamentals of obtaining different acoustic views, Doppler methods and an understanding of hemodynamics and cardiac function. Participants will break into several stations where they will work with neonatologists and cardiologists experienced in functional echocardiography, as well as experienced echo technicians, in a one-on-one interactive session to practice scanning on volunteer subjects. There will also be a review of several case studies to correlate the skills achieved during the workshop with clinical application.

Learning objectives:
- Discuss basics of ultrasonography.
- Identify structures of the heart in different acoustic windows.
- Utilize echocardiography to guide hemodynamic management through various assessments such as estimation of preload, contractility and right ventricular pressure.
- Identify common neonatal and pediatric cardiovascular pathologies with echocardiography.
- Obtain direct hands-on experience through performing echocardiography on volunteer subjects.

Agenda

Thursday, March 22

(Morning session, 8 a.m.-noon)

8 a.m.  Fundamentals of echo
8:30 a.m. Hands-on session
10:15 a.m. Cases
10:45 a.m. Hands-on session
11:45 p.m. Wrap up

(Afternoon session, 1-5 p.m.)

1 p.m.  Fundamentals of echo
1:30 p.m. Hands-on session
3:15 p.m. Cases
3:45 p.m. Hands-on session
4:45 p.m. Wrap up

Faculty: Neonatal Heart Society
Pre-conference workshops

Thursday, March 22 at Cook Children’s Medical Center

2. The use of 3-dimensional (3-D) technology in congenital cardiac disease

This workshop provides didactic and hands-on training for 3-dimensional (3-D) analysis of congenital heart disease. The workshop will include a lecture reviewing how a 3-D program enhances clinical understanding and impacts clinical outcomes. Participants will break into two groups and utilize 3-D work stations interpreting different clinical case scenarios. The workshop will also include a hands-on experience with printing a model in Cook Children’s 3-D print lab.

Learning objectives:
• Discuss the utility of 3-D imaging and printing in diagnostic and pre-procedural planning.
• Outline the different options to establishing a 3-D program in an institution.
• Explain how virtual 3-D technology can supplement 3-D printing.
• Describe the methods available for acquisition of 3-D data.
• Obtain a direct hands-on experience through analyzing 3-D data and creating a model from segmentation to final product.

Faculty: Steve Muyskens, M.D.

Agenda

1 p.m.  Why do we need 3-D?
1:15 p.m.  How do I sell the 3-D idea to administration and how do I set it up?
1:30 p.m.  What is virtual 3-D technology
1:45 p.m.  How do I use the information?
2 p.m.  Break
2:15 p.m.  Hands-on session
  Group 1: True 3-D virtual case scenarios
  Group 2: Segmentation, printing and preparing to print
3:15 p.m.  Break
3:30 p.m.  Hands-on session
  Group 1: Segmentation, printing and preparing to print
  Group 2: True 3-D virtual case scenarios
4:30 p.m.  Questions and discussion
Pre-conference workshops

Thursday, March 22 at Cook Children’s Medical Center

3. Extracorporeal membrane oxygenation (ECMO) in the neonate

This workshop is unique with high definition simulations and hands-on labs integrate extracorporeal membrane oxygenation (ECMO), mechanical ventilation, ultrasound and hemodynamics monitoring techniques required for optimal patient management. In addition to learning ECMO guidelines, learners will deepen their understanding of venovenous and venoarterial ECMO physiology. By incorporating the latest techniques, this workshop is intended to advance one's knowledge and judgment in initiating, monitoring and managing ECMO. Workshop size is limited.

Learning objectives:
- Review the indications for ECMO in the setting of improved postnatal management of hypoxic respiratory and cardio-respiratory failure.
- Review physiology of V-V and V-A ECMO.
- Differentiate between centrifugal and rotary pumps.
- Evaluate and manage circuit and patient complications on ECMO.
- Obtain hands-on experience with the ECMO circuit and ECPR.

Faculty:
John Cleary, M.D.
Rekha Hamilton, M.D.
Lane Lanier, M.D.
Jose Olarte-Motta, M.D.

Agenda

12:50 p.m. Introduction
1 p.m. ECMO physiology
1:15 p.m. ECMO circuits and devices
1:30 p.m. Indications and patient selection
1:45 p.m. Ventilation on ECMO
2 p.m. Bleeding and thrombosis prevention and management
2:15 p.m. Lab simulation and cases (two stations)
3:15 p.m. Break
3:30 p.m. Lab simulation and cases (two stations)
4:30 p.m. Questions and discussion
Pre-conference workshops
Thursday, March 22 at Cook Children’s Medical Center

4. Congenital heart disease: A comprehensive review for nursing and front-line providers

Looking for a way to review/prepare for the full NeoHeart Conference? The nursing workshop promises to strengthen your foundational knowledge in neonatal cardiology, from the newborn nursery to postoperative discharge. Topics to be covered will be congenital heart disease physiology, bedside ECG reading, nursing conflicts and playing nice in the sand as a team when caring for such sick patients.

1 p.m.   Introduction

1:10 p.m.   Congenital heart disease screening
• Why?
• What lesions will be picked up?
• How many are typically abnormal?
• What do I do if it’s abnormal?
  Diana Vargas, M.D.

1:30 p.m.   Transposition physiology
  Michael Green, M.D.

1:50 p.m.   Single ventricle physiology
  Gabriel Altit, M.D.

2:10 p.m.   Break

2:25 p.m.   Shunt physiology
  Kristina Kuo, MS, PNP-AC/PC

2:45 p.m.   Stabilizing a “heart baby”
  Karen Corlett, MS, PNP-AC/PC

3:05 p.m.   Bedside ECG reading
  Greg Barker, M.D.

3:35 p.m.   Break

3:50 p.m.   Expert round table
• How well do your nurses understand the physiology?
• How do you apply what was learned today?
• How can you engage physicians to teach/involve us?
• How can we keep great nurses at the bedside?
• How do nurses participate or contribute to patient safety and high reliability?
• How can you maximize nurses’ participation during rounds?
• How can you be more involved with families’ needs without crossing the line?
• Barriers between physicians and nurses that hinder our success

Panelists
Gabriel Altit, M.D.  Rebeccah Collingsworth, BSN, RN
Greg Barker, M.D.   Karen Corlett, MS, PNP-AC/PC
Michael Green, M.D. Kristina Kuo, MS, PNP-AC/PC
Diana Vargas, M.D.
Agenda

Thursday, March 22

6-7 p.m.
Cocktails on the Terrace on the Mezzanine level
The Renaissance Worthington
Fort Worth Hotel

7-9 p.m.
Dinner with our keynote speaker, Abraham M. Rudolph
The Renaissance Worthington
Fort Worth Hotel

Join us for cocktails on the patio under a spring evening in downtown Fort Worth. Enjoy the flood of dramatic colors as we dine under the Texas sky at sunset. We are excited to share with you an intimate dining experience with one of the legends of neonatal cardiology. Dr. Abraham Rudolph made his career by treating neonates with heart disease but he defined his life by his travels and his family. Please join us as we celebrate Dr. Abraham Rudolph's career and contributions to the field.

The Renaissance Worthington Fort Worth Hotel
**Agenda**

Friday, March 23

7:15 a.m.  Breakfast and exhibits open

7:45 a.m.  Welcome/introduction to NeoHeart 2018  
*Rick Merrill and Victor Y. Levy, M.D., MSPH*

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**HEMODYNAMIC CHALLENGES IN THE NEONATE**

**General session: Hemodynamics**
**Moderator: Amir Ashrafi, M.D.**

8 a.m.  Comprehensive hemodynamic monitoring and predictive mathematical modeling: Predicting the future  
*Istvan Seri, M.D., Ph.D.*

8:15 a.m.  Non-invasive hemodynamic assessment in the neonate  
*Paul A. Checchia, M.D.*

8:30 a.m.  The hemodynamic effects of asphyxia and whole body cooling  
*Nicolas Porta, M.D.*

8:45 a.m.  **Expert round table**
- Selecting the most appropriate inotropic support in neonates
- When to use vasopressin in the neonatal intensive care unit (NICU)
- What is the utility of electrical cardiometry?
- Do we need volume resuscitation for shock?
- How does hypothermia in the NICU compare to the in the CVICU?

**PANELISTS**

**Neonatology**  
Istvan Seri, M.D., Ph.D.  
Nicolas Porta, M.D.

**Cardiology**  
Carl Backes, M.D.  
Diana Vargas, M.D.

**CVICU**  
David Axelrod, M.D.  
Paul A. Checchia, M.D.

9:15 a.m.  Morning break and exhibits
Agenda

Friday, March 23

General session: Preterm infants and congenital heart disease (CHD)
Moderator: Victor Levy, M.D., MSPH

9:30 a.m. The paradigm shift of surgical repair 2018: Weight, age lesion ~ What really matters? Thomas Spray, M.D.

9:45 a.m. Implications of cardiopulmonary bypass for the premature neonate: Proactively minimizing sequelae Ganga Krishnamurthy, M.D.

10 a.m. Preventing necrotizing enterocolitis in premature neonates with congenital heart disease (CHD) Rune Toms, M.D.

10:15 a.m. Expert round table
• How small is too small for surgical repair?
• How do the NICU and CVICU teams collaborate on caring for these challenging patients?
• Best strategy to grow the premature neonate in structural heart disease
• Aiming for the low hanging fruit to prevent NEC in high risk patients
• Reducing IVH and PVL in preterm infants

PANELISTS
Neonatology
Ganga Krishnamurthy, M.D.
Rune Toms, M.D.
Cardiology
Mitchell I. Cohen, M.D.
Usha Krishnan, M.D.
CVICU
Ron Bronicki, M.D.
Thomas Spray, M.D.
CT surgery
Nursing
Michael Green, M.D.
Kevin Maher, M.D.
Rebeccah Collingsworth, BSN, RN

11 a.m. Morning break and exhibits

CARDIOPULMONARY INTERACTIONS IN THE NEONATE

General session: Pulmonary hypertension and bronchopulmonary dysplasia
Moderator: Nicolas Porta, M.D.

11:15 a.m. Right ventricle and pulmonary vascular interaction in the newborn Philip Levy, M.D.

11:30 a.m. Pathogenesis of pulmonary hypertension in bronchopulmonary dysplasia Usha Krishnan, M.D.

11:45 a.m. Ebstein’s Anomaly: The right ventricle, the lungs and pulmonary hypertension? Wayne Tworetzky, M.D.

Noon Expert round table
• State of the art diagnosis of PH: Echo versus cath versus biomarkers
• Single or combination therapy for PH in chronic disease?
• What is the best second line agent in severe disease?
• Is the treatment of PH in chronic disease different than in acute disease?
• What is the role of endothelin receptor antagonists in neonates?

PANELISTS
Neonatology
Philip Levy, M.D.
Shazia Bhombal, M.D.
Cardiology
Usha Krishnan, M.D.
Wayne Tworetzky, M.D.
CVICU
Michael Green, M.D.
Kevin Maher, M.D.
## Agenda

### Friday, March 23

**Lunch and exhibits**

### BREAKOUT SESSION A:
**Cardiopulmonary Balancing Act**
*(Runs simultaneously with Breakout Session B)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>1:30 p.m.</td>
<td>What do differential saturations mean and how do I interpret them?</td>
<td>Paul A. Checchia, M.D.</td>
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<tr>
<td>1:45 p.m.</td>
<td>Oxygen delivery: It's not just about the sats</td>
<td>Andrew Smith, M.D.</td>
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<tr>
<td>2 p.m.</td>
<td>Avoiding pulmonary overcirculation: What populations are at risk?</td>
<td>Karen Corlett, MSN, CPNP-AC/PC</td>
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<tr>
<td>2:15 p.m.</td>
<td>Expert round table</td>
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**PANELISTS**

- Neonatology
  - Amir Ashrafi, M.D.
- Nursing
  - Karen Corlett, MSN, CPNP-AC/PC
- Cardiology
  - Andrew Smith, M.D.
- CVICU
  - David Axelrod, M.D.
  - Paul Checchia, M.D.
  - Michael Green, M.D.

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Afternoon break and exhibits</td>
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### BREAKOUT SESSION B:
**Persistent Ductus Arteriosus (PDA) – Can we agree to disagree?**
*(Runs simultaneously with Breakout Session A)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>1:30 p.m.</td>
<td>Pro/con debate: Do we close the persistent ductus arteriosus (PDA)?</td>
<td>Richard Polin, M.D., and Shahab Noori, M.D.</td>
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<tr>
<td>1:55 p.m.</td>
<td>Expert round table</td>
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<td></td>
<td>• What does it mean to have a “hemodynamically significant” PDA?</td>
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<td>• Role of prophylactic indomethacin</td>
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<td>• Consequences of PDA in chronic lung disease</td>
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<td>• Neurodevelopmental outcomes after PDA ligation</td>
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<td></td>
<td>• Role of the cardiologist in outpatient follow-up of the persistent ductus.</td>
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**PANELISTS**

- Neonatology
  - Richard Polin, M.D.
  - Shahab Noori, M.D.
- CT Surgery
  - Robert Jaquiss, M.D.
- Cardiology
  - Carl Backes, M.D.
  - Shyam Sathanandam, MD

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<th>Time</th>
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<tr>
<td>2:30 p.m.</td>
<td>Afternoon break and exhibits</td>
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## Agenda

Friday, March 23

### BREAKOUT SESSION C:

**Anesthesia and sedation in the neonate**
*(Runs simultaneously with Breakout Session D)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>2:45 p.m.</td>
<td>FDA Warning: Much Ado About Something? Stephen Q. Hoang, M.D.</td>
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<tr>
<td>3 p.m.</td>
<td>As practitioners, How can we impact our patients’ outcome? Gil Wernovsky, M.D.</td>
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<tr>
<td>3:15 p.m.</td>
<td>How to wean chronic medications and accurately assess withdrawal Alan Farrow-Gillespie, M.D.</td>
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<td>3:30 p.m.</td>
<td><strong>Expert round table</strong>&lt;br&gt;• Is it pain or anxiety?  &lt;br&gt;• What are the low-hanging fruit for improving long-term neurodevelopmental outcomes?  &lt;br&gt;• How to select the most effective medication  &lt;br&gt;• What is more harmful: One long anesthetic exposure or multiple small anesthetic exposures?  &lt;br&gt;• Which withdrawal scoring system is right for the neonate?</td>
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**PANELISTS**

**Neonatology**<br>Rune Toms, M.D.  <br>Diana Vargas, M.D.<br><br>**Cardiology**<br>Yoav Dori, M.D.  <br>Gil Wernovsky, M.D.<br><br>**Nursing**<br>Melissa Gilbreath, MSN, RN, CPN<br><br>**Anesthesiology**<br>Alan Farrow-Gillespie, M.D.  <br>Stephen Hoang, M.D.

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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>4 p.m.</td>
<td>Afternoon break and exhibits</td>
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### BREAKOUT SESSION D:

**The Neonatal Nephron**
*(Runs simultaneously with Breakout Session C)*

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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>2:45 p.m.</td>
<td>Challenges of diagnosing acute kidney injury Andrew Smith, M.D.</td>
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<tr>
<td>3 p.m.</td>
<td>Stop the Lasix! Peritoneal dialysis following the Norwood procedure David Kwiatkowski, M.D.</td>
</tr>
<tr>
<td>3:15 p.m.</td>
<td>Long-term impact of neonatal AKI David Cooper, M.D., MPH</td>
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<tr>
<td>3:30 p.m.</td>
<td><strong>Expert round table</strong>&lt;br&gt;• Difficulties in using creatinine to diagnose AKI  &lt;br&gt;• How novel biomarkers can be used to diagnose AKI early  &lt;br&gt;• Can AKI be prevented?  &lt;br&gt;• The impact of fluid overload on outcome and how to mitigate it  &lt;br&gt;• Does an episode of AKI have long-term consequences?</td>
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**PANELISTS**

**Neonatology**<br>Rune Toms, M.D.  <br>Diana Vargas, M.D.<br><br>**Cardiology**<br>Andrew Smith, M.D.<br><br>**CVICU**<br>David Cooper, M.D.  <br>David Kwiatkowski, M.D.
Agenda
Friday, March 23

General session: Innovation in neonatal cardiac care
Moderator: Kevin Maher, M.D.

4:15 p.m.  
Expert round table
- Future of cardiac imaging
- Virtual reality in neonatal cardiac care
- Sustainable cardiothoracic program in developing countries
- Stem cell therapy in hypoplastic left heart syndrome
- Implementing artificial intelligence into daily rounds
- The role of the biomedical industry in promoting health
- Health monitoring and telemedicine
- Genetic revolution

PANELISTS
Neonatology
Gabriel Altit, M.D.
CVICU
Paul A. Checchia, M.D.

Nursing
Melissa Gilbreath, MSN, RN

Industry
Jim Potenziano

Cardiology
David Axelrod, M.D.
Steve Muyskens, M.D.

5 p.m.  
Adjourn

5 p.m.  
Reception and poster session
Agenda

Saturday, March 24

7 a.m. Espresso, eggs and ECGs (breakfast to be served during discussion)

Mitchell I. Cohen, M.D.

7:45 a.m. Introductions and announcements

General session: State-of-the-art management of hypoplastic left heart syndrome (HLHS)
Moderator: David Cooper, M.D.

8 a.m. Fetal interventions: Free for all or tertiary care facilities?
Wayne Tworetzky, M.D.

8:15 a.m. Early management of infants with hypoplastic left heart syndrome (HLHS)
Shawn Sen, M.D.

8:30 a.m. Pro/con debate: Despite increasing transparency, all patients should receive palliation
John Costello, M.D., MPH, and Robert Jaquiss, M.D.

8:50 a.m. Expert round table
• Is fetal intervention still experimental or standard of care?
• Does delivery in or near a tertiary center make a difference?
• Is single ventricle palliation always appropriate?
• With increasing transparency, what are the consequences of operating on high-risk patients?
• Who, what, when, where and how for establishing the family’s expectations?

PANELISTS
Neonatology
Shawn Sen, M.D.
Yogen Singh, MBBS

Cardiology
Wayne Tworetzky, M.D.

CVICU
John Costello, M.D., MPH

CT Surgery
Robert Jaquiss, M.D.

Nursing
Desiree McDonald, MSN, RN, CCRN, RNC-NIC, NNP-BC

9:15 a.m. Morning break and exhibits

9:30 a.m. Considerations when caring for the neonate with restrictive atrial septum
Hisashi Nikaidoh, M.D.

9:45 a.m. Pro/con debate: In premature and/or low birth weight neonates, the hybrid procedure should be performed rather than the Norwood procedure
Vincent Tam, M.D.
Alan Nugent, MBBS

10:05 a.m. Expert round table
• Is there a time to stent the overflow tract?
• What to do in the baby with IVH?
• Selecting the best anti-arrhythmic
• Brain growth in retrograde flow with hybrid procedure
• Managing Qp:Qs and cardiac output with differing surgical repair

PANELISTS
Neonatology
Amir Ashrafi, M.D.

Cardiology
Carl Backes, M.D.
Alan Nugent, MBBS

CVICU
Andrew Smith, M.D.

CT Surgery
Hisashi Nikaidoh, M.D.
Vincent Tam, M.D.

10:30 a.m. Panel discussion: What is the role of fetal intervention?

10:45 a.m. Panel discussion: When should we handle the atrial septum?

11:00 a.m. Panel discussion: Should we provide palliation to all HLHS patients?
Agenda

Saturday, March 24

10:30 a.m.  Morning break and exhibits

BREAKOUT SESSION E:  
Living with Congenital Heart Disease  
(Runs simultaneously with Breakout Session F)

Moderator: Mitchell I. Cohen, M.D., and Gil Wernovsky, M.D.

10:45 a.m.  A nurse’s perspective  
Czarina Hounsel, BSN, RN

11 a.m.  A family’s perspective:  
Family dynamics and integration of a patient with heart disease into the family

11:15 a.m.  A physician’s perspective  
David Kwiatkowski, M.D.

11:30 a.m.  Family panel  
• How do you connect to other patients?  
• When is too much? Is it the same for everyone?  
• Social media: Friend or foe?  
• Is there guilt?  
• How do we become our child’s advocate?

PANELISTS
Cardiology  Yoav Dori, M.D.
CVICU  David Kwiatkowski, M.D.
Family  TBA

CT Surgery  Hisashi Nikaidoh, M.D.
Nursing  Czarina Hounsel, BSN, RN
NICU  Nimrod Goldshtrom, M.D.

BREAKOUT SESSION F:  
Congenital Diaphragmatic Hernia  
(Runs simultaneously with Breakout Session E)

Moderator: John Patrick Cleary, M.D.

10:45 a.m.  Congenital diaphragmatic hernia and pulmonary vasodilators: Friend or foe?  
Usha Krishnan, M.D.

11 a.m.  In CDH, it’s all about the heart…not the lungs  
Gabriel Altit, M.D.

11:15 a.m.  The pediatric surgeon’s perspective  
Marty Knott, D.O., Ph.D.

11:30 a.m.  Expert round table  
• VV versus VA ECMO  
• Ventilation strategies before and during ECMO  
• Surgical repair on or off ECMO?  
• Lifelong considerations in CDH survivors  
• When CHD meets CDH

PANELISTS
Neonatology  Gabriel Altit, M.D.  
Shahab Noori, M.D.  
Yogen Singh, M.D.

Cardiology  Usha Krishnan, M.D.  
James Kuo, M.D.

Pediatric Surgery  Marty Knott, D.O., Ph.D.
Agenda

Saturday, March 24

Noon  Lunch and exhibits

Pulmonary development and dynamics

General session: Pulmonary dynamics and ventilation in the neonate with cardiac disease
Moderator: Victor Y. Levy, M.D., MSPH

1 p.m.  Pulmonary dynamics and its effect on cardiac function…why do we care?
Ron Bronicki, M.D.

1:15 p.m.  CPAP and NIPPV in CHD
Richard Polin, M.D.

1:30 p.m.  Innovative ventilator strategies for neonates with heart disease
John M. Costello, M.D.

1:45 p.m.  Chylous effusions: How do we stop the madness?
Yoav Dori, M.D., Ph.D.

2 p.m.  Expert round panel
- Risk and benefits of early extubation in the operating room
- Extubation to CPAP versus HFNC: Which is better?
- Ventilation strategies to shorten ICU length of stay
- Utility of CPAP trials prior to extubation
- When to perform bronchoscopy in neonates
- Management strategies in chylous effusions
- Pitfalls to thoracic duct ligation

PANELISTS

Neonatology  Cardiology  CVICU  Nursing
Richard Polin, M.D.  Yoav Dori, M.D., Ph.D.  Ron Bronicki, M.D.  Rebecca Collingsworth, BSN, RN
Istvan Seri, M.D.  John Costello, M.D., MPH

2:30 p.m.  Break and exhibits
Agenda

Saturday, March 24

Business of cardiac care

General session: Business and integration of neonatal cardiac care as a continuum of care
Moderator: Paul A. Checchia, M.D.

2:45 p.m.  Cost of pediatric cardiac care: Return on investment?
            David Axelrod, M.D.

3 p.m.   Integration of neonatal cardiac care: Worth it?
           Istvan Seri, M.D., Ph.D.

3:15 p.m.  How do we prepare for the future and plan for changes in reimbursement?
            Ingrid Vasiliu-Feltes, M.D., MBA

3:30 p.m.  Expert round table
           • Management of a division/department
           • Integrating community into the health care system
           • Team building
           • How do we build a new sub-division like CHF, PH or transplant?
           • How do we establish a certification in neonatal cardiac intensive care?
           • How does industry guide us from a business standpoint?

PANELISTS

Neonatology
Istvan Seri, M.D., Ph.D.

Cardiology
Gil Wernovsky, M.D.
Mitchell I. Cohen, M.D.

CVICU
David Axelrod, M.D.
Kevin Maher, M.D.

Administrator
Ingrid Vasiliu-Feltes, M.D., MBA
Agenda - Special Interest Meetings

Friday, March 23

12:30 p.m.  Advanced Practice Nursing and Nursing Meeting
            - APN/Nursing Education

12:30 p.m.  Targeted Neonatal Echocardiography Work Group Meeting

Saturday, March 24

Noon        Fellow and Trainees Meeting
            - Training in two fellowships, Academics, Private, a Mix?

Noon        Neonatal Heart Society - World Congress Meeting
            - Planning Committee

5 p.m.      Neonatal Heart Society - Business Meeting
Faculty

**Anesthesiology**

Alan Farrow-Gillespie, M.D.  
Assistant Director, Division of Pediatric Anesthesiology & Pain Management  
Medical Director, Pediatric Pain Management & Palliative Care Services  
Children's Medical Center Dallas  
Chief Clinical Officer, Pavilion Surgery Center  
Children's Health System of Texas  
Professor, Department of Anesthesiology & Pain Management  
UTSW Medical Center

Stephen Q. Hoang, M.D.  
Clinical Associate Professor,  
Children's Health,  
Department of Anesthesiology  
UT Southwest Medical Center of Dallas

**Cardiology**

David Axelrod, M.D.  
Co-Lead, CVICU Simulation Training Program, Clinical Associate Professor  
Lucile Packard Children's Hospital, Stanford University

Carl Backes, M.D.  
Assistant Professor of Pediatrics, Ohio State University College of Medicine  
Attending Neonatologist and Attending Cardiologist, Nationwide Children's Hospital

Greg Barker, M.D.  
Pediatric Cardiology Electrophysiologist  
Cook Children's

Shazia Bhombal, M.D.  
Clinical Assistant Professor in Neonatal and Developmental Medicine, Lucile Packard Children's Hospital, Stanford University

Mitchell I. Cohen, M.D., FACC, FHRS  
Co-Director,  
Pediatric Heart Program Director, Pediatric Arrhythmia Services  
Inova Children's Hospital

John M. Costello, M.D.  
Medical Director, Regenstein Cardiac Care Unit  
Director, Inpatient Cardiology- Children's Hospital of Chicago  
Professor of Pediatrics, Northwestern University Feinberg School of Medicine

Yoav Dori, M.D., Ph.D.  
Director, Pediatric Lymphatic Imaging and Interventions  
Children's Hospital of Philadelphia

Usha Krishnan, M.D.  
Associate Director, Pulmonary Hypertension Center  
Associate Professor, Pediatrics (Cardiology)  
Columbia University Medical Center

James Kuo, M.D., FSCAI  
Medical Director of Quality, Heart Center  
Cook Children’s

Steve Muyskens, M.D.  
Medical Director, Cardiac MRI, 3-D aPPROaCH Lab  
Cook Children’s

Alan Nugent, MBBS, FRACP  
Associate Professor of Pediatrics,  
UT Southwestern  
Director of Cardiac Catheterization, Children’s Health

Abraham Rudolph, M.D.  
Professor Emeritus, Pediatrics, Pediatric Cardiology  
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Assistant Professor, Pediatrics,  
University of Tennessee Health Science Center College of Medicine  
UT Le Bonheur Pediatric Specialists

Shawn Sen, M.D.  
Pediatric Cardiologist  
Lucile Packard Children's Hospital, Stanford University

Yogen Singh, MBBA  
Consultant Neonatologist and Expertise in Pediatric Cardiology and Associate Lecturer  
Addenbrooke’s Cambridge University Hospitals

Wayne Tworetzky, M.D.  
Director, Fetal Cardiology Program  
Boston Children's Hospital

Gil Wernovsky, M.D., FAAP, FACC  
Senior Consultant, Cardiac Intensive Care and Pediatric Cardiology  
Children’s National Medical Center

**CVICU**

Ronald A. Bronicki, M.D.  
Professor with Tenure, Department of Pediatrics, Baylor College of Medicine  
Section of Critical Care Medicine and Cardiology, Texas Children’s Hospital

Paul A. Checchia, M.D.  
Professor of Pediatric Critical Care, Baylor College of Medicine  
Medical Director, Pediatric CICU  
Texas Children’s Hospital

David S. Cooper, M.D., MPH  
Medical Director, Cardiovascular Intensive Care Unit  
Co-director, Center for Acute Care Nephrology  
Cincinnati Children’s Hospital

Michael Green, M.D.  
Director of the Pediatric Critical Care Fellowship Program, UT Southwestern

David Kwiatkowski, M.D.  
Clinical Assistant Professor, Pediatrics – Cardiology  
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Lane Lanier, M.D.  
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Cook Children’s

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Monroe Carell Jr. Children’s Hospital at Vanderbilt

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Montreal Children’s Hospital, McGill University

Amir Ashrafi, M.D.  
Neonatal – Cardiac Intensive Care  
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ECMO Director, Regional Director of Neonatology,  
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Fort Worth Pediatrix Neonatology Group

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Assistant Professor, Director, Neonatal Cardiac Care  
NewYork-Presbyterian/Morgan Stanley Children’s Hospital

Phillip T. Levy, M.D.  
Neonatologist; Atlantic Health System  
Adjunct Instructor, Washington University School of Medicine

Shahab Noori, M.D., MS CBTI, RDCTS  
Associate Professor of Pediatrics  
Section Head, Clinical Research Newborn and Infant Critical Care Unit,  
The Center for Fetal and Neonatal Medicine, USC Division of Neonatal Medicine, Keck School of Medicine, University of Southern California  
Children’s Hospital Los Angeles

Richard Polin, M.D.  
Professor of Pediatrics-Columbia University, College of Physicians and Surgeons in the City of New York  
Director of the Division of Neonatology, Morgan Stanley Children’s Hospital of New York-Presbyterian

Nicolas Porta, M.D.  
Associate Professor of Pediatrics (Neonatology), Northwestern University  
Co-director of Pulmonary Hypertension Program; Associate Director of Lurie Children’s NICU

Istvan Seri, M.D., Ph.D., Hon.D.  
Director, Center for Fetal and Neonatal Medicine, Children’s Hospital Los Angeles  
Professor of Pediatrics, USC Keck School of Medicine, Los Angeles, CA  
Honorary Member, Hungarian Academy of Sciences, Budapest, Hungary

Rune Toms, M.D.  
Associate Professor/Neonatal Cardiac Intensivist/Medical Director, RNICU/Director, Nosocomial Infection Prevention (CLABSA) Program

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VP-Education, Quality and Safety  
Clinical Services Division  
MEDNAX Health Solutions Partner
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James Kuo, M.D., FSCAI
Lane Lanier, M.D.
Amanda Mrstik, BS

Program Director
Victor Y. Levy, M.D., MSPH

Thank you for joining us in Fort Worth!

We look forward to seeing you in 2019 in California!

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