NeoHeart

Cardiovascular Management of the Neonate



Children's Hospital of Orange County 1201 W. La Veta Orange, CA 92868







WWW.CHOC.ORG/NEOHEART

Topics to include:

- What can NICU, CVICU, Cardiology, CT Surgery, and Anesthesia teach each other?
- Pre- & post-operative management of complex heart disease
- Feeding with congenital heart disease (CHD)
- What to do in the premature neonate with CHD
- Latest in management of pulmonary hypertension
- Neonatal myocardium and hemodynamics of shock
- Controversies of the ductus arteriosus
- Optimizing long-term neurodevelopmental outcomes

Abstract Poster Session:

Please refer to wwww.choc.org/neoheart for submission.

Half-day workshops available:



Wednesday, March 22	1:30 PM - 5:30 PM
and	
Saturday, March 25	8:00 AM - 12:00 PM

Workshop A: Echocardiography for the NICU PICU physician to assess filling and function

Workshop B: Essentials of neonatal cardiology: anatomy, physiology, electrophysiology, and cardiac surgery

Workshop C: NP/PA/RN perspective of advanced bedside care for the neonate with heart disease

• All Wednesday workshops are

repeated Saturday morning.

- Workshop A has a seating capacity of 35 participants.
- Workshop B/C have an open seating capacity.

Register today!

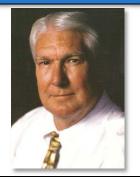
Keynote Speaker Dinner: Reflections on a Legendary Career Wednesday, March 22, 2017 | 6:00 PM - 9:00 PM

Dr. William I. Norwood, Jr.

We honor this pioneering physician who will reflect on his inspiring career.

Hosted marina-side dinner and cocktail hour.

Must RSVP to attend.



TARGET AUDIENCE: All physicians & clinical providers caring for neonates are encouraged to attend.

REGISTRATION / FEES

NeoHeart: Cardiovascular Management of the Neonate

REGISTER ONLINE

www.choc.org/neoheart

Registration & Workshop Fees	Early Bird Rates	Standard Rates (after 2/7/17)
Physician	\$650	\$750
Fellow/Resident	\$350	\$450
RN/NP/PA	\$350	\$450
Other	\$350	\$450
Wednesday Workshop	\$250	\$300
Saturday Workshop	\$250	\$300

Registration fee includes CME, tuition, course materials and meals as listed in the program.

CANCELLATION POLICY

A written notice of cancellation must be received by January 25, 2017. All admin fees and credit card transaction fees are NOT refundable. A \$100 cancellation fee will be assessed. After January 25, 2017, cancellation requests cannot be honored. Substitutions are allowed. We understand from time to time, emergencies do occur. However, due to our contracted food & beverage minimums and hotel room block, we will be unable to refund any registration fees past the January 25, 2017 deadline.

Questions: 800.329.2900 | CHOCCME@choc.org

ACCOMMODATIONS/LOCATION

Manchester Grand Hyatt | 1 Market Place | San Diego, CA 92101

Hotel Website: Manchester.grand.hyatt.com

Limited room availability.

Reserve a room before February 22, 2017 by calling 619-358-6705 and mention "CHOC NeoHeart" to

get discounted rate of \$259++/night.

You may also reserve your hotel online: https://resweb.passkey.com/go/CHOC17

Manchester Grand Hyatt reserves the right to close the room block 30 days before the conference. Group rates apply to nights booked by our attendees the nights of Wednesday, March 22, 2017 through Saturday, March 25, 2017.

For more information, please call: 1.800.329.2900

Please check www.choc.org/neoheart regularly for updates regarding this meeting.



EDUCATIONAL NEED

Tremendous uncertainty and controversy exists within the management of neonates with congenital heart disease. Some of the issues facing neonatologists, pediatric cardiologists and pediatric cardiac intensivists include: choice/timing of cardiac surgery, indications and safety profile of newer medication in neonates, preoperative assessment of well-being, and post-operative management decisions in this emerging population.

Medical providers require up to date information and sharing of ideas in order to ensure best outcomes for this growing patient population. Due to a significant increase in heart surgery performed during the neonatal period, it is imperative neonatologist learn about cardiac physiology. In parallel, it is imperative for cardiologist and cardiac intensivists to learn about neonatal physiology.

NeoHeart is designed to merge the neonatal and cardiac practitioners. NeoHeart is dedicated to state of the art care for the neonate with congenital heart disease.

NeoHeart is dedicated to advancing the skill set for hemodynamic assessment of neonatal and cardiac intensivists. Workshops will be provided to learn and apply bedside functional echocardiography to help critical care assessment and management decisions. In the past, this modality was used only by a cardiologist; it is imperative neonatal and cardiac intensivists broaden their skills to optimize care for their patients.

TARGET AUDIENCE

Physicians, physician's assistants, nurses, nurse practitioners, fellows, residents and other allied health professionals who specialize in neonatology, pediatric cardiology, pediatric intensive care, and cardiothoracic

CONFERENCE FORMAT

No lengthy PowerPoint presentations with 50/50 balance of didactic and dynamic sessions. Emphasis placed on audience participation. NeoHeart will be a 2 full-day conference with 3 half-day workshop options filled with expert panels, for/against debates, and case-based tutorials.

ACCREDITATION AND DESIGNATION OF CREDITS

CHOC Children's Hospital is accredited by the Institute of Medical Quality/California Medical Association (IMQ/CMA) to provide continuing medical education (CME) for physicians.

CHOC Children's Hospital designates this live educational activity for a maximum of 22.0 AMA PRA Category 1 Credit(s)TM. Physicians should only claim credit commensurate with the extent of their participation in the

This credit may also be applied to the CMA Certification in CME.

NURSES

The California Board of Registered Nursing recognizes that Continuing Medical Education (CME) is acceptable for meeting RN continuing education requirements as long as the course is certified for AMA PRA Category 1 Credit(s)TM (rn.ca.gov). Nurses will receive a Certificate of Attendance following this activity that may be used for license renewal.

FINANCIAL DISCLOSURES

Supported, in part, through an education grant from Mead Johnson. Additional support pending.



Conference Outcomes

- Advocate for a team approach between the NICU, CVICU, and Cardiology on cardiovascular management of the neonate.
- Follow suggested pre and postoperative management guidelines for the neonate with complex heart disease
- Determine treatment options in the premature neonate with congenital heart disease
- Use suggested state of the art management of pulmonary hypertension
- Consider neonatal myocardium and hemodynamics of shock
- Follow updated protocols for feeding the neonate with CHD
- Review current controversies of the ductus arteriosus
- Employ suggested strategies for optimizing long-term neurodevelopmental outcomes

Workshop Outcomes

Workshop A: Echocardiography for the NICU PICU Physician to Assess Filling and Function

- Describe the basic principles of echocardiography. Interpret cardiac volume status and contractility,
- and elevated pulmonary vascular resistance.
- · Accurately and rapidly acquire basic echo images.

Workshop B: Essentials of Neonatal Cardiology: Anatomy, Physiology, Electrophysiology and Cardiac Surgery

- · Differentiate the lesions in congenital heart disease and describe the implications of each lesion.
- Identify and treat the most common arrhythmias in neonates and surgical repairs needed to correct the most common lesions.

Workshop C: NP/PA/RN Perspective of Advanced Care for the Neonate with Heart Disease

- · Identify common pitfalls of pre- and postoperative care in CHD.
- Improve hemodynamic assessment.
- · Apply state of the art intervention for practical bedside care.

CONFERENCE FACULTY

NEONATOLOGY

Keith J. Barrington, MBBS Chief of Neonatology University of Montreal

Shazia Bhombal, MD Clinical Assistant Professor Stanford University

Christine Bixby, MD Medical Dir, Lactation Svcs CHOC Children's Hospital

Vijay Dhar, MD Medical Dir, NICU CHOC Children's Hospital

John Kinsella, MD Dir of Newborn ECMO Children's Hospital Colorado

Anup Katheria, MD Dir, Neonatal Research Institute Sharp Mary Birch

Ganga Krishnamurthy, MD Dir of Neonatal Cardiac Care Morgan Stanley Children's Hospital

Victor Levy, MD, MSPH Dir of Cardiac NICU Cook Children's Hospital

Annie Janvier, MD, PhD, FRCPC Co-Dir, Microprogram & Master's in Pediatric Clinical Ethics University of Montreal

Patrick McNamara, MBBS Professor of Pediatrics & Physiology, Toronto SickKids

Denise Suttner, MD Director, NICU Rady Children's Hospital

ANESTHESIA

Dean B. Andropoulos, MD, MHCM Chief of Anesthesiology Texas Children's Hospital

CARDIOTHORACIC SURGERY Richard Gates, MD Surgeon-in-Chief, CHOC Children's

Director, CT Surgery CHOC Children's Heart Institute

Frank Hanley, MD Lawrence Crowley, MD, Endowed Professor in Child Health Professor, Cardiothoracic Surgery Stanford Medicine

John Lamberti, MD Chief, Cardiovascular Surgery Div Director, Eugene & Joyce Klein Heart Institute Rady Children's Hospital

William I. Norwood, Jr., MD Esteemed Professor of Cardiothoracic Surgery

CARDIOLOGY

Mitch I. Cohen, MD, FACC, FHRS Co-Dir, Phoenix Children's **Heart Center** Prog Dir, CHC Research & Edu Phoenix Children's Hospital

Wyman Lai, MD Assistant Div Chief, Cardiology CHOC Children's Hospital

Daniel J. Penny, MD, PhD Chief, Pediatric Cardiology Texas Children's Hospital

Andrew Redington, MD Executive Co-Dir, Heart Institute Chief. Pediatric Cardiology Cincinnati Children's Hospital

Pierangelo Renella, MD Cardiology CHOC Children's Hospital

Wayne Tworetzky, MD Director, Fetal Cardiology Program Boston Children's Hospital

PULMONOLOGY

Steven Abman, MD Dir, Pediatric Heart-Lung Center Children's Hospital Colorado

CARDIAC INTENSIVE CARE

Ronald A. Bronicki, MD **Associate Professor of Pediatrics** Baylor College of Medicine Texas Children's Hospital

Paul A. Checchia, MD Medical Director, CVICU Texas Children's Hospital

David S. Cooper, MD Director, Cardiac Intensive Care Associate Med Dir, CVICU Cincinnati Children's Hospital

Peter Laussen, MBBS, FCICM Chief, Critical Care Medicine Toronto SickKids

Mjaye L. Mazwi, MD Attending Physician, Cardiology Lurie Children's Hospital

David Wessel, MD Executive VP & CMO Children's Nat'l Health System

NURSING

Dorothy M. Beke, CPNP-PC/AC **CICU Clinical Nurse Specialist** Children's Hospital Boston

Dawn Tucker, DNP, RN, CPNP-AC Admin Director, Cardiac Center Nemours Children's Hospital

HOSPITAL ADMINISTRATION Richard Afable, MD, MPH President & CEO St. Joseph Hoag Health Exec VP - St. Joseph, So. Cal.

BIOTECHNOLOGY EXECUTIVE Joe Kiani, CEO Founder, Chairman, and CEO Masimo Corporation

PROGRAM CHAIRS

Amir H. Ashrafi, MD

Neonatal - Cardiac Intensive Care CHOC Children's

John P. Cleary, MD Neonatology

Neonatal ECMO Director CHOC Children's

Anthony C. Chang, MD, MBA, MPH Cardiology

Chief Intelligence & Innovation Officer CHOC Children's





THURSDAY | MARCH 23, 2017

Session I: 8:00 AM - 12:00 PM **Neonatal Myocardium and Hemodynamics**

Welcome to NeoHeart

The Neonatal Myocardium

- Andrew Redington, MD

Defining and Treating Shock in the Newborn

- Patrick McNamara, MD

Expert Round Table:

- K. Barrington, MBBS, P. McNamara, MBBS
- S. Bhombal, MD, A. Redington, MD, W. Lai, MD
- What is "Normal" Blood Pressure? Is There a Role for Permissive Hypotension?
- How Much Preload do Neonates Actually need? How Afterload Sensitive is the Neonatal Myocardium?
- What Should be the 1st Line Agents in Treating Hypotension? What About 2nd Line?
- Indications for Milrinone, Vasopressin, and/or steroids?
- How sensitive are neonates to fluctuations in calcium?

The Ductus Ateriosus - John Cleary, MD

Expert Round Table:

- K. Barrington, MBBS, P. McNamara, MBBS,
- S. Bhombal, MD, A. Redington, MD, W. Lai, MD
- Prophylactic Indomethacin, is it Coming Back?
- Defining Hemodynamically Significant: Clinical Findings vs Echo vs Biomarkers
- Dangers of Treatment? Dangers of No Treatment?
- To Feed or Not to Feed
- Post Ligation Syndrome
- How Should Cardiologists Treat in the Outpatient Setting?

The Most Difficult Case I had this Year... How I Could and/or Should have Optimized Cardiac Output, Hemodynamics, and Tissue Oxygen Delivery

D. Suttner, MD, V. Dhar, MD, R. Bronicki MD,

M. Cohen, MD, D. Penny, MD

- Severe Septic Shock
- Cardiomyopathy Secondary to Perinatal Asphyxia
- Obstructed LV Outflow Tract in Infant of Diabetic Mother
- Severe Hydrops Secondary to Fetal Arrhythmia
- Heart Failure Due to Cerebral Arterial-venous Fistula

Echocardiography in the ICU Cardiology Vs NICU Vs PICU

Expanding Point-of-Care Echocardiography into the Hands of NICU and PICU Physicians

A. Katheria, MD, P. McNamara, MBBS, R. Bronicki, MD, M. Mazwi, MD, W. Lai, MD

- What is a Targeted Echocardiogram and Who Should be Trained?
- Release of the First Standardized TNE Training Curriculum for Neonatologists
- What is the Time Line for Developing a Standardized Curriculum in the PICU?
- With 24/7 Pediatric Cardiology Coverage, What are the Benefits of Point-of-Care Cardiac Ultrasound?

Session II: 1:00 PM - 5:00 PM Controversies in Congenital Heart Disease

TOF-PA with MAPCAs, How Did We Get Here and Where are We Going? - Frank Hanley, MD

Tetralogy of Fallot

- D. Suttner, MD, P. Checchia, MD, P Laussen, MD,
- A. Redington, MD, W. Tworetzky, MD, F. Hanley, MD
- Neonatal Repair vs. BT Shunt
- Is There Ever a Time to Stent the Neonatal RVOT?
- In TOF-PA MAPCAs, Single or Staged Unifocalization?
- Anticoagulation for the Neonates with BT Shunt, How Reliable is Aspirin?
- Do We Need Home Monitoring for BT shunt? Who Gets it

Pulmonary Atresia with Intact Ventricular Septum (PA-IVS)

D. Suttner, MD, P Laussen, MD, A. Redington, MD,

- W. Tworetzky, MD, F. Hanley, MD
- Anatomic Risk Factors in PA-IVS.
- Should We Pre-Operatively Feed all Neonates with Ductal Dependent Pulmonary Blood Flow?
- Predicative Value of Daily Troponins
- Who Should be Listed for Neonatal Transplant?
- Is There a Role for Systemic Vasodilators After Palliation?
- Long Term Survival Outcomes

How Computational Medicine Helps Me Predict and Prevent Cardiovascular Collapse

- Mjaye Mazwi, MD

Hypoplastic Left Heart Syndrome

- G. Krishnamurthy, MD, P. Laussen, MD, D. Cooper, MD, M. Mazwi, MD, J. Lamberti, MD, D. Andropoulos, MD
- Anatomic Risk Factors in HLHS
- Pre-Operative Feeding in Patient with Obstructive Systemic Blood Flow. Who, When, and How?
- When is the Premature Neonate Ready for Bypass?
- Utility of Selective Cerebral Perfusion
- Who Should Get the BT Shunt, Sano, or Hybrid? - Expanded Neuro-Monitoring: Improving Outcomes or Increasing False Positives?
- What are the Post-Operative Caloric Needs?

Heterotaxy Syndrome

Faculty continued from previous session.

- How do We Decide Who Gets a Single or Biventricular Repair?
- Who Should We Screen for Malrotation? Should All Get Prophylactic Ladd's Procedure?
- How Often Do We Miss Atrial Tachycardia and Does it Matter?
- Who Should Get a Cardiac MRI?
- How Has The Genomic Revolution Affected this Diagnosis?
- Are Poly-Splenic Patients Really Asplenic?

Coverage Model for Post-op Neonates

Expanding the concept of CV-NICU

- G. Krishnamurthy, MD, D. Suttner, MD, P. Checchia, MD,
- V. Levy, MD, R. Gates, MD, D. Tucker, APRN
- Is the Traditional Pediatric CVICU the Optimal Location for
- Do CVICU Physicians Need More Training in Neonatology? Should Neonatologists be Trained in CVICU?
- Physician-Nurse Collaboration
- What do Care Models Look Like in 2017 from Around the Country?

5:15 PM - Abstracts Walk-Around & Network Hour 7:00 PM - Mallinckrodt Dinner Lecture - Must RSVP

FRIDAY | MARCH 24, 2017

Session III: 8:00 AM - 12:00 PM The Pulmonary Vascular Bed

The Neonatal Pulmonary Vascular Bed - Science behind our Therapies

- Steven Abman, MD

State of the Art Management of PPHN in 2017

- John Kinsella, MD

Expert Round Table:

K. Barrington, MBBS, J. Kinsella, MD, P. McNamara, MBBS, D. Wessel, MD, A. Chang, MD, S. Abman, MD

- Role of iNO in the Preemie with PPHN
- Can Combination Therapy Prevent the Need for ECMO? The Effects of Whole Body Cooling on PVR and PPHN
- Chronic Pulmonary Hypertension in BPD/CLD. When and Who to Cath?
- Role of Endothelin Receptor Antagonists in Chronic Disease? Role of Prostacyclins?
- What Specific Strategies are Needed for the Patient with Trisomy 21?
- Pulmonary Hypertension in Congenital Diaphragmatic Hernia

Pulmonary Hypertension in CHD

- David Wessel, MD

Expert Round Table:

- J. Kinsella, MD, D. Wessel, MD, D. Penny, MD,
- A. Redington, MD, F. Hanley, MD, S. Abman, MD
- The Right Ventricle in Chronic Disease
- Can We Protect the Pulmonary Vasculature in Single Ventricles? Timing of Surgery in the Unprotected Pulmonary Vascular Bed
- Effects of Cardiopulmonary Bypass on the Neonatal Pulmonary Vascular Bed
- The Role of Gaseous Nitric Oxide During Cardiopulmonary **Bypass**
- Pulmonary Vein Stenosis and CLD: A Rare Disease or Rarely Diagnosed?
- Reflection of the 2015 PH Guidelines; What Have we Learned?
- Strategies for Anesthesia and Sedation in the High Risk Patients What Novel Therapeutics Will We Use in the Coming
 - It Drives Me Crazy When...

Cardiology Vs CT Surgery Vs

NICU Vs PICU Vs Anesthesiology An In-depth Look at the Biases and Culture

Practices from Each of Our Disciplines C. Bixby, MD, D. Cooper, MD, D. Penny, MD,

R. Gates, MD, D. Andropoulos, MD, D. Tucker, APRN

Session IV: 1:00 PM - 4:30 PM Fetal Cardiac Care, Ethics & Long Term **Neurodevelopmental Outcomes**

Fetal Cardiac Intervention - Becoming Standard of Care or Still Experimental?

- Wayne Tworetzky, MD

How Do We to Include Families in Complex Decision Making? - Annie Janvier, MD

Expert Round Table:

A. Janvier, MD, D. Wessel, MD, W. Tworetzky, MD, J. Lamberti, MD, D. Beke, CPNP

- Values Added from a Fetal Center; Should We Build One at Our Institution?
- Ethical Considerations of Late Diagnosis and Termination of Pregnancy
- What Options Should We Provide for Family of Trisomy 21 and Single Ventricle?
- Should We Ever Provide Operations for Trisomy 18? Trisomy 13?
- Because "We Can Do This" vs "Should We Do This"? Who Decides and Why?
- Speaking about Life and Death

Neurodevelopmental Outcomes of CHD: What are the Low Hanging Fruit for Improvement?

- Dean Andropoulos, MD

Expert Round Table:

K Barrington, MBBS, P. Checchia, MD, P. Renella, MD, D. Andropoulos, MD, D. Beke, CPNP

- Cooling After Cardiac Arrest? Who and When?
- Are We Using the Wrong Sedatives?
- What are the Most UP-to-Date Recommendations for Sedation in Neonates? Should all Pre and Post Op Neonates Get EEG? What
- Happens if We Begin Treating Too Many Subclinical Special Considerations for Those with DiGeorge and
- CHARGE Syndrome How Our Decisions in the Neonatal Period Affect Their School Years?

How Are We Defining and Measuring Success? Are the Present Metrics Misleading?

What Happens When the Best Physicians, Hospital Executives, Medical Innovators, and Industry Leaders Get Together to Talk About How to Make the Lives of Neonates Better?

R. Afable, MD MPH CEO, V. Dhar, MD, M. Mazwi, MD,

A. Chang, MD, J. Lamberti, MD, J. Kiani, CEO







For the latest schedule and speaker updates, please visit www.choc.org/neoheart