Pediatric Emergency Medicine, Neonatal and Critical Care Medicine: 
Bedside Ultrasound Course

Saturday, May 21 and 
Sunday, May 22, 2016

Ruth and Tristram Colket, Jr. 
Translational Research 
Building 
at The Children’s 
Hospital of Philadelphia

www.chop.edu/cme

The Children’s Hospital of Philadelphia®  
Hope lives here.®
Course Information

Course Overview
This course is intended as an alternative to adult emergency and critical care ultrasound courses, with a focus on pediatric emergency ultrasound indications. It is designed for both pediatric emergency medicine and critical care medicine providers with limited or basic knowledge of emergency bedside ultrasound. Through a combination of lectures and hands-on practical sessions using live pediatric models and simulation equipment, course attendees will learn ultrasound fundamentals (physics and principles of scanning) and ultrasound scanning techniques pertinent to pediatric practice, including: basic procedural guidance (line placement, lumbar puncture, etc.); evaluation of abcesses and foreign bodies; bladder scanning; FAST (focused assessment with sonography for trauma); lung evaluation; basic cardiac evaluation; musculoskeletal applications (fracture and joint); bowel scanning (intussusception); fluid and function evaluation; and advanced procedures (nerve blocks, chest tube placement, peritoneal/pleural fluid drainage).

The course is being taught by emergency and critical care ultrasound experts, and will have a low student-to-teacher ratio of 4 to 1. A limited portion of the course will be devoted to a knowledge and skills assessment exam and a brief discussion of program development and administrative issues with regard to point-of-care ultrasound.

General Information
The conference will be held at The Children’s Hospital of Philadelphia in the Ruth and Tristram Colket, Jr. Translational Research Building May 21-22, 2016. The registration fee includes continental breakfast, refreshments, lunch, parking and course materials.

Target Audience
Pediatric emergency medicine, neonatal and critical care medicine providers.

Course Objectives
1. Demonstrate core nonprocedural ultrasound skills (basic fluid and cardiac function assessment, FAST exam, pulmonary ultrasounds) using bedside ultrasound
2. Demonstrate core procedural ultrasound skills (intravenous line insertion and fluid drainage)
3. Discuss appropriate indications and limitations of the bedside ultrasound exam in pediatric acute care settings

Accreditation Statement
The Children's Hospital of Philadelphia is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

AMA Credit Designation Statement
The Children's Hospital of Philadelphia designates this live activity for a maximum of 15.75 AMA PRA Category 1 Credit(s)™.

Cancellation and Refund Policy
The Children’s Hospital of Philadelphia reserves the right to cancel or postpone any course due to any unforeseen circumstances. In the event of cancellation or postponement, the Hospital will refund registration fees, less a $40 service fee, but is not responsible for any related costs, charges or expenses to participants, including cancellation charges assessed by airlines or travel agencies. In order to process refunds, cancellations must be received in writing by Friday, May 13, 2016. No refunds will be issued thereafter.

Services for People with Disabilities
If special arrangements are required for an individual with a disability to attend this meeting, please contact the Continuing Medical Education Department at 215-590-5263.
<table>
<thead>
<tr>
<th><strong>Saturday, May 21, 2016</strong></th>
<th><strong>Sunday, May 22, 2016</strong></th>
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<tr>
<td>7:15 a.m. Registration and Continental Breakfast</td>
<td>7:15 a.m. Continental Breakfast</td>
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<td>7:45 a.m. Welcome and Course Overview</td>
<td>7:45 a.m. Welcome and Day Two Overview</td>
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<tr>
<td>8 a.m. Physics and Fundamentals of Ultrasonography: “Knobology” and Image Generation</td>
<td>8 a.m. Brief Review</td>
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<tr>
<td>9 a.m. Hands-on Skills: Knobology, Machine Basics</td>
<td>8:10 a.m. Basic Procedures (Abscess, Foreign Body, Bladder, Spinal Tap, Paracentesis)</td>
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<td>9:30 a.m. Introduction to FAST/FAFF</td>
<td>8:50 a.m. Break (break into Emergency Medicine and Neonatal/Critical Care Medicine groups)</td>
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<td>10 a.m. Vascular Access: Peripheral, Central and Arterial Line Placement</td>
<td>9 a.m. Breakout Sessions</td>
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<td>10:30 a.m. Break</td>
<td>10:15 a.m. Break</td>
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<tr>
<td>10:45 a.m. Hands-on Skills: FAST, FAFF, Vascular Access</td>
<td>10:30 a.m. Hands-on Skills: Abscess, IV, Shock Assessment</td>
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<td>12:15 p.m. Lunch — Ultrasound Cases and Discussion</td>
<td>12:15 p.m. Working Lunch — Ultrasound Cases: Image Review</td>
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<tr>
<td>1 p.m. Cardiac Views</td>
<td>1 p.m. Point-of-care Ultrasound Education</td>
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<td>1:30 p.m. Shock/Hypotension</td>
<td>1:30 p.m. Knowledge Assessment: Critical Review of Ultrasound Scans</td>
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<td>2 p.m. Break</td>
<td>2:15 p.m. Break</td>
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<tr>
<td>2:15 p.m. Lung Ultrasound: Pneumonia, Pneumothorax and Pleural Effusions</td>
<td>2:30 p.m. Skill Assessment</td>
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<td>2:45 p.m. Hands-on Skills: Cardiac, Lungs</td>
<td>EM: FAST, IV, Bladder, Foreign Body, Cardiac, Lungs</td>
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<td>4:30 p.m. Adjourn</td>
<td>Neonatal/CCM: Cardiac, Lungs, IVC Assessment, Procedural</td>
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**EMERGENCY MEDICINE**
Blunt Abdominal Trauma in Children: Moving from FAST to CEUS (Contrast Enhanced Ultrasound)
Abdominal Ultrasonography in Pediatric Emergency Medicine
Musculoskeletal Applications

**NEONATAL/CRITICAL CARE**
Left Ventricular Functional Assessment
Pulmonary Hypertension and Right Ventricular Function
Volumetric Assessment

| 10:15 a.m. Break | 10:15 a.m. Break |
| 10:30 a.m. Hands-on Skills: Abscess, IV, Shock Assessment | 10:30 a.m. Hands-on Skills: Abscess, IV, Shock Assessment |
| 12:15 p.m. Working Lunch — Ultrasound Cases: Image Review | 12:15 p.m. Working Lunch — Ultrasound Cases: Image Review |
| 1 p.m. Point-of-care Ultrasound Education | 1 p.m. Point-of-care Ultrasound Education |
| 1:30 p.m. Knowledge Assessment: Critical Review of Ultrasound Scans | 1:30 p.m. Knowledge Assessment: Critical Review of Ultrasound Scans |
| 2:15 p.m. Break | 2:15 p.m. Break |
| 2:30 p.m. Skill Assessment | 2:30 p.m. Skill Assessment |
| EM: FAST, IV, Bladder, Foreign Body, Cardiac, Lungs | Neonatal/CCM: Cardiac, Lungs, IVC Assessment, Procedural |
| 4:30 p.m. Questions and Answers | 4:30 p.m. Questions and Answers |
| Course Evaluation | Course Evaluation |
| 5 p.m. Adjourn | 5 p.m. Adjourn |
Course Faculty

Unless otherwise noted, faculty is from The Children’s Hospital of Philadelphia and the Perelman School of Medicine at the University of Pennsylvania

Course Directors

Aaron Chen, M.D., F.A.C.E.P.
Director of Emergency Ultrasound
Division of Pediatric Emergency Medicine
Assistant Professor of Clinical Pediatrics

Thomas Conlon, M.D.
Director of Pediatric Critical Care Ultrasound
Assistant Professor
Department of Anesthesiology and Critical Care Medicine

Maky Fraga, M.D.
Attending Physician
Division of Neonatology
Director, N/IICU Ultrasound Program
Assistant Professor of Pediatrics

Alyssa Abo, M.D.
Associate Director of Emergency Ultrasound
Division of Emergency Medicine
Children’s National Medical Center
Assistant Professor of Pediatrics and Emergency Medicine
George Washington University School of Medicine

Alfred Cheng, M.D., M.S.C.E.
Associate Director of Emergency Ultrasound
Division of Emergency Medicine
Children’s National Medical Center
Assistant Professor of Pediatrics and Emergency Medicine

Lei Chen, M.D., M.H.S.
Director of Research
Section of Emergency Medicine, Department of Pediatrics
Yale-New Haven Hospital
Associate Professor of Pediatrics
Yale University School of Medicine

Kassa Darge, M.D., Ph.D.
Chief, Division of Body Imaging
Department of Radiology
Professor of Radiology and Surgery

J. Kate Deanehan, M.D., R.D.M.S.
Assistant Professor, Department of Pediatrics
Pediatric Emergency Medicine
Johns Hopkins Children’s Center

Christie Glau, M.D.
Clinical Fellow, Department of Anesthesiology and Critical Care Medicine

Adam Himebauch, M.D.
Attending Physician, Critical Care Medicine
Assistant Professor, Department of Anesthesiology and Critical Care Medicine

David Kessler, M.D., M.Sc., R.D.M.S.
Director of Pediatric Emergency Ultrasound and Clinical Simulation
Division of Pediatric Emergency Medicine
New York Presbytarian Morgan Stanley Children’s Hospital of New York
Assistant Professor of Pediatrics at CUMC
Columbia University College of Physicians and Surgeons

Ronald F. Marchese, M.D.
Attending Physician, Pediatric Emergency Medicine
Assistant Professor of Clinical Pediatrics

Megan Mickley, M.D.
Pediatric Emergency Ultrasound Fellow

Akira Nishisaki, M.D., M.S.C.E., F.A.A.P.
Associate Medical Director for Clinical Implementation Programs, Department of Anesthesiology and Critical Care Medicine

Matthew O’Connor, M.D.
Attending Physician, Cardiology
Assistant Professor of Clinical Pediatrics

Nova Panebianco, M.D., M.P.H.
Attending Physician, Department of Emergency Medicine
Associate Director of Emergency Ultrasound
Hospital of the University of Pennsylvania
Assistant Professor

Rachel Rempell, M.D.
Attending Physician, Division of Neonatology
Assistant Professor of Pediatrics

Erik Su, M.D.
Director of Pediatric ICU Ultrasound Program
Johns Hopkins Children’s Center
Assistant Professor, Department of Anesthesia and Critical Care Medicine
Johns Hopkins University
Pediatric Emergency Medicine and Critical Care Medicine: Bedside Ultrasound Course


Name ____________________________________________________________________________

Credentials ________________________________________________________________________

Institution/Hospital _________________________________________________________________

Home Address ________________________________________________________________________

City _________________________________________ State _______ ZIP _____________________

Phone ___________________________________ Fax _____________________________________

Email ____________________________________________________________________________

Discipline: ☐ EM ☐ Critical Care ☐ N/IICU ☐ Other ________________________________

* Required Field

Prior Point-of-care Ultrasound Experience

☐ None

☐ Limited, mostly for line placement

☐ Limited, but use it for multiple diagnostic and procedural indications

☐ Moderately experienced in multiple diagnostic and procedural indications

Conference Registration Fee: $900

Method of Payment

☐ Personal check ☐ Institutional check
(Please make check payable to The Children’s Hospital of Philadelphia.)

☐ Discover ☐ MasterCard ☐ American Express ☐ VISA

Credit Card # ______________________________________________________________________

Exp. Date ___________________________________________

Registration will not be processed unless accompanied by full payment. Faxed registrations will be accepted for credit card payments only.

Mail/fax the completed registration form and payment to:

Ms. Micah Holliday, Continuing Medical Education Department
The Children’s Hospital of Philadelphia
34th Street and Civic Center Boulevard
Philadelphia, PA 19104-4399
215-590-5CME • Fax 215-590-4342 • hollidaydm@email.chop.edu

Register online at www.chop.edu/cme