



**PEDIATRIC EMERGENCY MEDICINE,  
GENERAL PEDIATRICS, NEONATOLOGY  
AND CRITICAL CARE MEDICINE:  
Bedside Ultrasound Course**

**Saturday and Sunday, June 1 and 2, 2024**

**The HUB for Clinical Collaboration**



**Children's Hospital  
of Philadelphia**

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## 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 neonatal, pediatric emergency 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 abscesses 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, neonatal and critical care ultrasound experts, and will have a low student-to-teacher ratio of 4/5 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.

## REGISTRATION FEES AND GENERAL INFORMATION

The conference will be held at Children’s Hospital of Philadelphia in the HUB Auditorium, Saturday and Sunday, June 1 and 2, 2024. The course registration fees are as follows:

Physicians: ..... \$1,100

Fellows, nurse practitioners and CHOP-affiliated providers: ..... \$600

The fee includes continental breakfast, refreshments, lunch and course materials.

## TARGET AUDIENCE

Neonatal, pediatric emergency medicine 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



In support of improving patient care, this activity has been planned and implemented by Children's Hospital of Philadelphia. Children's Hospital of Philadelphia is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

## DESIGNATION OF CREDIT

**Physicians:** Children's Hospital of Philadelphia designates this live activity for a maximum of *16.75 AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## CANCELLATION AND REFUND POLICY

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 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 17, 2024. 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.

**REGISTER ONLINE: [CHOP.CLOUD-CME.COM](https://chop.cloud-cme.com)**



## PROGRAM – SATURDAY, JUNE 1, 2024

- 7 a.m.            **Registration and Breakfast**
- 7:30 a.m.        **Welcome and Course Overview**  
*Aaron Chen, MD; Thomas Conlon, MD; Maky Fraga, MD; Beryl M. Greywoode, MD*
- 7:45 a.m.        **Physics and Fundamentals of Ultrasonography**  
*Jason Stoller, MD*
- 8:15 a.m.        **Introduction to FAST/FAFF**  
*Fabrizio Romano, MD*
- 8:45 a.m.        **Vascular Access and Basic Procedures**  
*Mark Weber, RN, CRNP-AG*
- 9:15 a.m.        **Lung Ultrasound: Pneumonia, Pneumothorax and Pleural Effusions**  
*Adam Himebauch, MD*
- 9:45 a.m.        **Break**
- 10 a.m.           **Hands-on Skills (FAST/FAFF, Vascular Access, Lung)**
- Noon             **Lunch**
- 12:20 p.m.      **Approach to Ultrasound Guided Lumbar Puncture**  
*Eric Will, MS, PA-C*
- 12:40 p.m.      **Introduction to Ocular Ultrasound**  
*Kyle Miller, DO*
- 1:15 p.m.        **Cardiac Views**  
*Leah Carr, MD*
- 1:45 p.m.        **LV Systolic Function Assessment**  
*Cecile Tissot, MD*
- 2:15 p.m.        **Break**
- 2:30 p.m.        **Hands-on Skills (Subcostal/IVC, Apical and Parasternal Views)**
- 4:30 p.m.        **Adjourn**

## PROGRAM – SUNDAY, JUNE 2, 2024

7 a.m. Breakfast

BREAKOUTS

### EMERGENCY MEDICINE/GENERAL PEDIATRICS BREAKOUT SESSIONS

7:30 a.m. Day 1 Review

7:45 a.m. Advanced Procedural Applications for General and Emergency Medicine  
Pediatric Providers  
*Thomas Lee, MD*

8:15 a.m. Abdominal Ultrasonography in Acute Care Settings  
*Rachel Rempell, MD*

8:45 a.m. Musculoskeletal Applications  
*Andrea Matho, MD*

9:15 a.m. Inpatient Ultrasound in Pediatric Medicine  
*Erin Finn, MD*

### NEONATAL/CRITICAL CARE BREAKOUT SESSIONS

7:30 a.m. Day 1 Review

7:45 a.m. Advanced Volume Assessment  
*Christie Glau, MD*

8:15 a.m. Pulmonary Hypertension, Right Ventricular Function and the PDA  
*Maky Fraga, MD*

8:45 a.m. Approach to Shock and Hypotension  
*David Baker, MD*

9:15 a.m. Functional Lung Ultrasound in Neonatology and Considerations in Critical Care  
*William Corder, MD*

9:45 a.m. Break

10 a.m. Hands-on Skills (*EM/Gen Peds; Abdominal Review, Procedures, Musculoskeletal*)  
Hands-on Stations (*ICU – Shock/Volume, Right Ventricular Function,  
Left Ventricular Function*)

Noon Working Lunch

- 12:20 p.m.      **Ultrasound in ECMO**  
*Thomas Pawlowski, MD*
- 12:40 p.m.      **PDA and Interesting Cases**  
*Yogen Singh, MD*
- 1 p.m.            **Umbilical Venous Cannulation in Neonates**  
*Maky Fraga, MD*
- 1:20 p.m.      **Head Ultrasound Basics and Neuro-ultrasound**  
*Minh-Huy Huyah, MD*
- 1:45 p.m.      **"Augmenting" POCUS Education**  
*Michael Zubrow, MD*
- 2:10 p.m.      **Consideration for Ultrasound Integration in Practice**  
*All Faculty*
- 2:45              **Break**
- 3 p.m.            **Skill Assessment (GP/EM: FAST/Bladder, IVC/Foreign Body, Cardiac/Lung, Neonatal/CCM: Cardiac, Lung, Abdomen/Procedure)**
- 4:30 p.m.      **Conference Adjourns**

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

## **COURSE DIRECTORS**

**Aaron Chen, MD**

*Director of Emergency Ultrasound*

**Thomas Conlon, MD**

*Director of Pediatric Critical Care Ultrasound*

**Maky Fraga, MD**

*Director of N/IICU Ultrasound*

**Beryl M. Greywoode, MD**

*Director of General Pediatric Ultrasound*

## **COURSE FACULTY**

**Maher Abulfaraj, MD**

*Arkansas Children's Hospital, Little Rock, AR*

**David Baker, MD**

*Children's Hospital of Philadelphia*

**Erik Brandsma, MD**

*Children's Hospital of Philadelphia*

**Leah Carr, MD**

*Children's Hospital of Philadelphia*

**William Corder, MD**

*Children's Hospital of Philadelphia*

**Kristine DellaBadia, MD**

*Children's Hospital of Philadelphia*

**Ryan DeSanti, DO**

*St. Christopher's Hospital for Children  
Philadelphia, PA*

**Kris Dixon, MD**

*Children's Hospital of Philadelphia*

**Erin Finn, MD**

*Children's Hospital of Philadelphia*

**Christie Glau, MD**

*Children's Hospital of Philadelphia*

**Jacob Hemberger, MD**

*Children's Hospital of Philadelphia*

**Adam Himebauch, MD**

*Children's Hospital of Philadelphia*

**Minh-Huy Huynh, MD**

*Children's Hospital of Philadelphia*

**Garrett Keim, MD**

*Children's Hospital of Philadelphia*

**Kimberly Kristoff, BSN, RN, CBC**

*Children's Hospital of Philadelphia*

**Thomas Lee, MD**

*Bridgeport Hospital of Yale New Haven Hospital  
System*

**Steven Loscalzo, MD**

*Children's Hospital of Philadelphia*

**Andrea Matho, MD**

*Children's Hospital of Los Angeles, Los Angeles  
General Medical Center*

**Michael McWay, MD**

*Children's Hospital of Philadelphia*

**Kyle Miller, DO**

*Dell Children's Hospital, Austin, TX*

**Akira Nishisaki, MD, MSCE**

*Children's Hospital of Philadelphia*

**Thomas Pawlowski, MD**

*Children's Hospital of Philadelphia*

**Rachel Rempell, MD**

*Children's Hospital of Philadelphia*

**Fabrizio Romano, MD**

*Inselspital, Bern, Switzerland*

**Yogen Singh, MBBS, MD**

*Loma Linda University, CA*

**Jason Stoller, MD**

*Children's Hospital of Philadelphia*

**Cecile Tissot, MD**  
*University Children's Hospital of Geneva,  
Switzerland*

**Stephanie Watts, MSN, CPNP-AC**  
*Children's Hospital of Philadelphia*

**Mark Weber, RN, CRNP-AC**  
*Children's Hospital of Philadelphia*

**Eric Will, MS, PA-C**  
*Children's Hospital of Philadelphia*

**Mahsun Yuerek, MD**  
*Children's Hospital of Philadelphia*

**Michael Zubrow, MD**  
*Barbara Bush Children's Hospital, Portland, ME*



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