

Pediatric Emergency Medicine, General Pediatrics,  
Neonatology and Critical Care Medicine:

## Bedside Ultrasound Course

Saturday and Sunday, May 21 and 22, 2022

Joseph Stokes Jr. Auditorium  
Main Building, Children's Hospital of Philadelphia



## 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 Joseph Stokes Jr. Auditorium, Saturday and Sunday, May 21 and 22, 2022. The course registration fees are as follows:

Physicians: .....\$950

Fellows, nurse practitioners and CHOP-affiliated providers: .....\$475

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

## TARGET AUDIENCE

Neonatal, pediatric emergency medicine and critical care medicine providers.

## IN-PERSON CONFERENCE GUIDELINES RELATED TO COVID

- **ALL faculty and registrants are expected to be vaccinated** by the time of the course. Please reach out to course directors if you are interested in the course but remain unvaccinated.
- **Faculty and learners must be masked** at all times except in designated eating spaces.
- If the course is cancelled for any reason, registration costs will be fully refunded. We cannot refund any expenses for travel/lodging.

## **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

## **ACCME ACCREDITATION STATEMENT**

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**

Children's Hospital of Philadelphia designates this live activity for a maximum of *15.0 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 fees, 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, 2022. 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, MAY 21, 2022

- 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**  
*Rachel Rempell, MD*
- 8:45 a.m.        **Vascular Access and Basic Procedures**  
*Mark Weber, RN, CRNP-AC; Erik Brandsma, MD*
- 9:15 a.m.        **Lung Ultrasound: Pneumonia, Pneumothorax and Pleural Effusions**  
*Ryan DeSanti, DO*
- 9:45 a.m.        **Break**
- 10 a.m.           **Hands-on Skills (FAST/FAFF, Vascular Access, Lung)**
- Noon             **Lunch**
- 12:45 p.m.      **Approach to Ultrasound Guided Lumbar Puncture**  
*William Corder, MD*
- 1 p.m.            **Introduction to Ocular Ultrasound**  
*Vidit Bhagrava, MD*
- 1:15 p.m.        **Cardiac Views**  
*Leah Carr, MD*
- 1:45 p.m.        **LV Systolic Function Assessment**  
*Gabriela Centers, MD, MSCR*
- 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, MAY 22, 2022

7 a.m. Breakfast

7:30 a.m. 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  
*Aaron Chen, MD*

8:15 a.m. Abdominal Ultrasonography in Acute Care Settings  
*Maher Abulfaraj, MD*

8:45 a.m. Musculoskeletal Applications  
*Mary Kate Claiborne, MD*

9:15 a.m. “Flowing” with Inpatient Ultrasound  
*Beryl M. Greywoode, 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  
*Saul Flores, MD*

8:45 a.m. Approach to Shock and Hypotension  
*Adam Himebauch, MD*

9:15 a.m. ECMO and Bedside Ultrasound  
*Erik Su, 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 Lunch

- 12:45 p.m.      **Basics of Head Ultrasound**  
*Hansel Otero, MD*
- 1 p.m.            **Umbilical Venous Cannulation in Neonates**  
*Ben Kozyak, MD*
- 1:15 p.m.        **Translating Point-of-care Training to Research**  
*Gabriel Altit, MD, MSc*
- 1:45 p.m.        **Translating Point-of-care Training to Clinical Care**  
*Thomas Conlon, MD*
- 2:15 p.m.        **Review of Pathology**
- 2:45 p.m.        **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  
Associate Professor of Clinical Pediatrics,  
Division of Pediatric Emergency Medicine*

**Thomas Conlon, MD**

*Director of Pediatric Critical Care Ultrasound  
Assistant Professor of Anesthesiology and  
Critical Care Medicine*

**Maky Fraga, MD**

*Director of N/IICU Ultrasound  
Associate Professor of Clinical Pediatrics,  
Division of Neonatology*

**Beryl M. Greywoode, MD**

*Attending Physician, General Pediatrics*

**Elaina Lin, MD**

*Director of Perioperative Ultrasound  
Assistant Professor of Anesthesiology and  
Critical Care Medicine*

## **COURSE FACULTY**

**Maher Abulfaraj, MD**

*Senior Ultrasound Fellow  
Division of Pediatric Emergency Medicine*

**Gabriel Altit, MDCM, MSc**

*Assistant Professor, Division of Neonatology  
McGill University*

**Erik Brandsma, MD**

*Associate Professor of Clinical Pediatrics  
Division of Neonatology*

**Vidit Bhargava, MD**

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Division of Critical Care Medicine  
The University of Alabama Birmingham*

**Leah Carr, MD**

*Attending Physician, Division of Neonatology  
Fellow, Department of Biomedical and  
Health Informatics*

**William Corder, MD**

*Neonatology Fellow  
Division of Neonatology*

**Gabriela Centers, MD, MSCR**

*Assistant Professor of Clinical Pediatrics  
Division of Pediatric Critical Care  
Indiana University School of Medicine*

**Mary Kate Claiborne, MD**

*Assistant Professor of Clinical Pediatrics  
Division of Pediatric Emergency Medicine*

**Ryan DeSanti, DO**

*Assistant Professor of Pediatrics  
Drexel College of Medicine  
St Christopher's Hospital for Children*

**Saul Flores, MD**

*Associate Professor  
Pediatrics-Critical Care-Cardiology  
Baylor College of Medicine*

**John N. Fonge, MD**

*Attending Hospitalist  
Internal Medicine and Pediatrics*

**Christie Glau, MD**

*Assistant Professor of Anesthesiology and  
Critical Care Medicine*

**Adam Himebauch, MD**

*Assistant Professor of Anesthesiology and  
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*Neonatology Fellow  
Division of Neonatology*

**Summer Kaplan, MD**

*Director of Emergency Radiology*

**Garrett Keim, MD**

*Attending Physician  
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*Assistant Professor of Anesthesiology and  
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Cardiac Intensive Care Unit  
Cardiac Center*

**Steven Loscalzo, MD**

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**Carolynn McGann, MD**

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**Akira Nishisaki, MD, MSCE**

*Associate Medical Director for Clinical  
Implementation Programs  
Department of Anesthesiology and  
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**Hansel Otero, MD**

*Director of International Pediatric Radiology  
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**Rachel Rempell, MD**

*Assistant Professor of Clinical Pediatrics  
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**Jason Stoller, MD**

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*Assistant Professor of Pediatrics  
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Texas Children's Hospital*

**Mark Weber, RN, CRNP-AC**

*Nurse Practitioner  
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**Jennifer Wiebelhaus, MD**

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