

**EMS & FIRE PRO'S** 

# PEDIATRIC SYMPOSIUM

WEDNESDAY OCTOBER 23, 2024

**EMSPRO.ORG** 



EXPO + CONFERENCE

Thank you for attending EMS & FIRE PRO's inaugural Pediatric Symposium.

We hope you find today's sessions valuable, filled with insights, networking opportunities, and the informative Lunch & Learn, generously sponsored by Waterbury Health and Hamilton Medical.

Should you be unable to attend the full Expo from October 24 - 26, 2024, we invite you to explore our complimentary Exhibit Hall, which promises to be our largest and most dynamic yet. It's a fantastic opportunity to connect with industry leaders, discover new innovations, and engage with cutting-edge exhibitors.

We look forward to seeing you!

UNITING THE FIRST RESPONDER COMMUNITY
For 10 Years & Counting

# **GENERAL INFO**



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#### SYMPOSIUM HOURS

OPENING	8:30 am - 9:00 am
Morning Sessions	9:15 am - 12:00 pm
Lunch & Learn	. 12:00 pm - 1:30 pm
Evening Sessions	1:30 pm - 4:15 pm

#### PEDIATRIC TRACKS

PEDIATRICS 1	3rd	Floor
PEDIATRICS 2	3rd	Floor
LUNCH & LEARN	3rd	Floor

#### **2024 COMMITTEE MEMBERS**

Gregory Allard
Michele Connelly
Joseph Soto
Jim Connelly
William Fitzmaurice
Kirsten Jensen
Joseph Laucella
Judith Reynolds
Louis Scotto
Mike Witek

Thank you for joining us today!

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TIME	PEDIATRICS 1
8:30 AM - 9:00 AM	OPENING Megan Petrucelli: No Small Problems: Are You Ready to Provide Pediatric Care?
9:15 AM - 10:30 AM	<b>Sofia Athanasopoulou</b> : EMS SimBox: Bringing High Quality Pediatric Simulation to Every EMS Agency
10:45 AM - 12:00 PM	<b>Daniel Malley &amp; Peter Devekos</b> : Pediatric Toxicological Emergencies

1:30 PM - 2:45 PM	<b>Matthew Harris</b> : Pediatric Cardiac Arrest in the Prehospital Setting; How We Can Finally Move the Needle and Improve Outcomes
3:00 PM - 4:15 PM	Carla Pruden & Jennifer A. Tabak: Enhancing Preparedness of Prehospital Providers in Pediatric Mass Casualty and Disaster Response: Utilizing Low-Fidelity Simulation for Effective Care Delivery

# **SCHEDULE GRID**



#### **PEDIATRICS 2**

**Zoe Casey**: The A,B,C's: The Building Blocks of Advanced Pediatric Resuscitation

Rich Grady: Pediatric Burn Care

LUNCH & LEARN Generously Sponsored By:





**Lola Whalen**: Pre-Hospital Pediatric Trauma – A Zen Approach

Nicholas North, Jessica Bishop, Jorge Yarzebski, & Nicole Olson: Critical Journeys - The Art of Pediatric Critical Care Transport

#### MEGAN PETRUCELLI, MSN, RN, EMS-I, CEN, CPEN

Program Coordinator for the CT EMS for Children State Partnership Grant PEDIATRICS 1 | 8:30 AM - 9:00PM

## NO SMALL PROBLEMS: ARE YOU READY TO PROVIDE PEDIATRIC CARE?

Children have unique needs which require specialized care, especially during an emergency. Nationally, pediatric calls account for approximately 10% of all prehospital calls. Given the low frequency of pediatric call volume, EMS providers report decreased confidence and familiarity in providing age-appropriate care to pediatric patients. In community emergency departments where a similar pediatric volume paradigm exists, research suggests being "pediatric ready" as measured by the National Pediatric Readiness Assessment associates with improve pediatric patient outcomes. Further, high "peds ready" scores correlate with reduced provider anxieties and increased clinical confidence.

The EMS for Children State Partnership Grants sponsored by the Health Resource and Service Organization (HRSA) was established in 1984 to help develop training and educational opportunities to ensure each EMS agency and emergency department is "peds ready." The National Prehospital Readiness Project (PPRP) is a joint national effort aimed at improving prehospital emergency care for ill and injured children. In May 2024, the PPRP launched a brand-new readiness assessment to help benchmark readiness and identify gap areas for improvement. A core component of the PRPP is the designation of a local EMS stakeholder to serve as a Pediatric Emergency Care Coordinator (PECC), which in the community emergency department, drives improved pediatric readiness scores. The PPRP provides toolkits and resources to address the gaps and improve an agency's 'pediatric readiness."



#### **SOFIA ATHANASOPOULOU, MD**

Pediatric Emergency Medicine Fellow at Yale
PEDICATRICS 1 | 9:15 AM - 10:30 PM

## EMS SIMBOX: BRINGING HIGH QUALITY PEDIATRIC SIMULATION TO EVERY EMS AGENCY

Although calls for critically ill and injured pediatric patients are rare, the care these patients receive by Emergency Medical Services (EMS) is critical to their outcomes. Currently, there is variation in the pediatric training and continued medical education requirements for prehospital providers. Simulation is a valuable tool to help practice not only low-frequency, high-stakes clinical scenarios, but also high-frequency pediatric scenarios such as anaphylaxis, asthma, or newborn resuscitation. There are substantial barriers to pediatric simulation access in the prehospital setting: the high cost of simulators, equipment and consumables, the lack of access to trained simulation technicians, faculty, and subject matter experts, as well as lack of access to peerreviewed simulation curricula. EMS SimBox is a free, online, open-access, medical education platform developed to empower providers to build their own skills and capacity to conduct pediatric simulations without access to a simulation center or expert. We have created a set of eight simulation scenarios specifically tailored and contextualized to the prehospital setting. Each case includes a video of real or animated patients next to corresponding pre-recorded vital signs and expert-reviewed, case-specific educational content. SimBox has been successfully used to improve the self-efficacy of prehospital providers caring for acutely ill children 1 and to identify and measure practice deviations from standardized resuscitation protocols in the prehospital setting. The goal of this presentation is to introduce EMS SimBox, showcase uses of SimBox in the prehospital setting, and ultimately empower prehospital educators and providers to conduct SimBox pediatric simulations.



**ZOE CASEY, MD** 

Assistant Program Director, UConn EM Residency
PEDIATRICS 2 | 9:15 AM - 10:30 PM

### THE A,B,C'S: THE BUILDING BLOCKS OF ADVANCED PEDIATRIC RESUSCITATION

This lecture will discuss the evidence based advanced resuscitation techniques as they relate to the care of critically ill pediatric patients. While focused on the advanced techniques, it would be cavalier to not mention some of the basic techniques, as many of the advanced techniques are based on excellent basic resuscitation skills.

From an airway perspective, this lecture will discuss advanced airway management including supraglottic airways and the placement of surgical airways.

The second section will focus on the recognition and treatment of disorders of breathing, including tips and pearls to assist in the identification of the etiology of respiratory distress.

The section discussing circulatory issues, will review IV/IO access, CPR, the PALS algorithms and then move on to discuss cardioversion techniques, defibrillation, transcutaneous pacing.

For those of us who care for critically ill patients, we know that the ability to anticipate the next steps whenever possible can truly help save a life. This lecture will highlight simulation medicine as an excellent education modality to allow pre hospital staff to familiarize themselves with protocols and resuscitation algorithms, develop their communication and team leader skills and also to learn advanced resuscitation techniques and procedures and prevent procedural skill decay.



#### DANIEL MALLEY, CCP-C, FP-C

Pediatric Critical Care Transport, Yale New Haven Children's Hospital

#### PETER DAVEKOS, FP-C

flight paramedic, Yale New Haven Children's Hospital PEDIATRIC 1 | 10:45 AM - 12:00 PM

#### PEDIATRIC TOXICOLOGICAL EMERGENCIES

Toxicological emergencies are a common pediatric ailment that cause significant morbidity and mortality each year. This topic is more relevant than ever as pediatric mental health emergencies have

surged post pandemic resulting in an increased number of intentional ingestions as well as legislative changes that have made other products more accessible. EMS providers must be prepared to handle these cases. In this lecture we will present a series of different toxicological emergencies in a case-based format.



Nurse Manager of Perioperative & Outpatient Services, Shriners Children's Boston

PEDIATRIC 2 | 10:45 AM - 12:00 PM

#### PEDIATRIC BURN CARE

Pediatric Burn Care is an interactive lecture concentrating on initial management, Airway management, fluid resuscitation, Burn depth, Total Body Surface Area (TBSA) calculations, American Burn Association (ABA) referral criteria, comfort management, and mass casualty. An interactive case study is part of the lecture as well. Burn unit care is also discussed.

## **LUNCH & LEARN**

Sponsored By: Waterbury HEALTH & Hamilton Medical



#### **BROOKE REDMOND & KIRK SMITH**

PEDIATRICS ? | 12:00 PM TO 1:30 PM

#### ONE-AND-TWO-AND-THREE-AND-BREATHE

Neonatal resuscitations in the field are low frequency but very high stakes events. Effective neonatal interventions differ from pediatric and adult advanced life support in important ways. For EMS to prepare for these emergencies, there is an ongoing need for regular, accessible education rooted conceptually in the AAP Neonatal Resuscitation Program and aligned with state protocols. EMS also requires neonatal expertise integrated into existing infrastructure for

support during life-threatening neonatal events. Children are not small adults, and babies are not tiny children.

Systems issues amplify the urgency to ensure preparedness for out-of-hospital neonatal emergencies. Care regionalization impacts perinatal-neonatal services, necessitating more travel for access, and expanding the likelihood of EMS involvement. Modern pregnancies are increasingly complex, babies admitted to neonatal ICUs smaller, sicker, and more complicated, and hospital-based medical professionals interfacing with EMS less and less experienced in neonatal care and resuscitation. A dual approach, focused on practical training and real-time expert help, could improve infant outcomes, enhance first responder performance, and decrease stress for families and providers.

Yale's 24/7 BABY program – the first of its kind nationally, broadly scalable, freely available – provides outreach through CME and connects neonatologists directly with EMS via telehealth technology, aiming to optimize prehospital care for births outside the hospital. Discussion for the first half of the lunch and learn will center on key elements of term and preterm neonatal resuscitation in the field in addition to detailing development of this innovative program.

The second half of the the lunch and learn will feature Hamilton Medical with an interactive presentation of equipment and support available for neonatal and pediatric airway management in the field.

#### Objectives:

- Explain why the airway and the establishment effective ventilation are the primary focus in neonatal resuscitation.
- Describe how skilled providers can optimize interventions that support changes from fetal to neonatal physiology while accounting for specific vulnerabilities during field deliveries.
- Outline critical focal points of neonatal resuscitation, with specific consideration given to a baby's gestational with targeted approaches for term and preterm infants.
- Explore the role of telehealth in enhancing prehospital communication, improving alignment with neonatal best practices, augmenting provider confidence, and decreasing family stress during prehospital births and neonatal resuscitations.







#### MATTHEW HARRIS, MD, FAAP, FAEMS

Medical Director, Pediatric and Neonatal Critical Care Transport.
PEDIATRICS 1 | 1:30 PM TO 2:45 PM

# PEDIATRIC CARDIAC ARREST IN THE PREHOSPITAL SETTING; HOW WE CAN FINALLY MOVE THE NEEDLE AND IMPROVE OUTCOMES

Advances in prehospital care have led to marked improvement in outcomes in out-of-hospital cardiac arrest (OHCA) for adults. However, outcomes for children have failed to improve. In this presentation, we review the current state of Pediatric OHCA (p-OHCA) management and outcomes. We will critically evaluate airway maneuvers, scene time, CPR quality, and medications. We will identify opportunities for allowing EMS clininicians to work up to their scope of practice and optimize outcomes for children in the low-frequency but high acuity management of pediatric cardiac arrest in the prehospital setting. The talk concludes with a discussion on the role of termination of resuscitation in pediatric out-of-hospital cardiac arrest.



#### LOLA WHALEN, RN, CFRN, C-NPT, TPATC, EMT

Flight Nurse, Yale New Haven Children's Hospital PEDIATRICS 2 | 1:30 PM TO 2:45 PM

#### PRE-HOSPITAL PEDIATRIC TRAUMA - A ZEN APPROACH

The objective of this presentation is to give the pre-hospital provider some pediatric specific knowledge and tools to enable them to provide appropriate and definitive care. The approach of

the presentation is to build on the knowledge and skills they already have and build their confidence in delivering care to the pediatric trauma patient. The content will cover some differences between pediatric and adult trauma patients, including mechanism and how it impacts the index of suspicion for injury in a pediatric patient. It will also discuss transport options – securement devices for transport, destination choices (closest hospital vs Pediatric Trauma Center), Gamp; mode of transport (when to call for a helicopter).



#### CARLA PRUDEN, MD, MPH, CHSE

Pediatric Emergency Medicine Attending, Connecticut Children's Hospital

#### JENNIFER A. TABAK, RN, MSN, CEN, CPEN

Trauma Program Manager, Connecticut Children's Hospital PEDIATRICS 1 | 3:00 PM TO 4:15PM

ENHANCING PREPAREDNESS OF PREHOSPITAL PROVIDERS IN PEDIATRIC MASS CASUALTY AND DISASTER RESPONSE: UTILIZING LOW-FIDELITY SIMULATION FOR EFFECTIVE CARE DELIVERY

Disasters and Mass Casualty Incidents pose unique challenges for prehospital providers, especially regarding pediatric patient care. A systematic and well-coordinated approach is required to mitigate the chaos and complexity of these situations. This session aims to address the need for enhanced preparedness among prehospital providers by utilizing standardized pediatric tools for triage and care during mass casualty or disaster response involving pediatric patients. The session will provide an overview of pediatric patients' unique physiological and psychological aspects that must be considered in emergencies, focusing on key components of pediatric triage assessment, including age-specific vital signs, medication dosages, equipment sizing, and communication strategies. Participation in a low-fidelity, immersive simulated experience will help participants apply these concepts in a controlled and psychologically safe setting. When combined with the use of standardized tools, the valuable insights, knowledge, and critical thinking skills acquired during this session will empower participants to improve pediatric outcomes when faced with these challenging situations in the prehospital environment.







#### NICHOLAS NORTH RN, NRP, CFRN, CCRN, C-NPT, CMTE

Flight Nurse

#### JESSICA BISHOP DNPC, RN, CFRN, CCRN, EMT

Education Specialist, Flight Nurse

#### **JORGE YARZEBSKI MS, NRP, FP-C**

Education Chair/Simulation Specialist, Flight Paramedic

PEDIATRICS 2 | 3:00 PM TO 4:15PM

#### CRITICAL JOURNEYS - THE ART OF PEDIATRIC CRITICAL CARE TRANSPORT

This simulation experience is centered around pediatric critical care transport. From a patient who experiences a toxic ingestion, we discuss and simulate some special considerations prior to transporting a patient who requires helicopter transport. There are some special considerations to discuss. Can we take a parent? Should we take a parent? Where do we secure the child? Should we secure their airway now or later? There are many things to consider with pediatric transport versus adult transport. We will discuss all of these while caring for a sick pediatric patient who experiences a toxic ingestion.

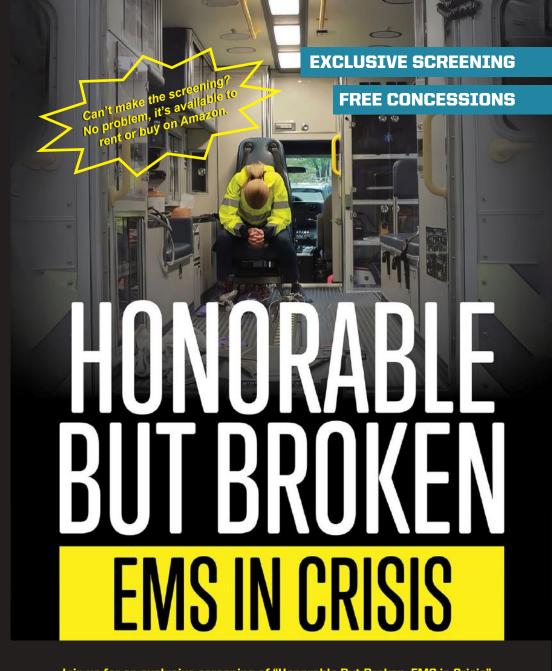


IS MAKING A MOVE IN 2025! ANY GUESSES WHERE? 69

Thank you for attending this year's Pediatric Symposium.

We look forward to welcoming you again next year!

SAVE THE DATE SEPTEMBER 24 - 27, 2025



Join us for an exclusive screening of "Honorable But Broken: EMS in Crisis"

A documentary film exploring the world of EMTs and Paramedics, the collapse of the EMS system, and what needs to be done to save it.

DATE: WEDNESDAY, OCTOBER 23

**TIME:** 7:00PM

**LOCATION: GREAT CEDAR SHOWROOM** 



HAMILTON-T1. Reduce cognitive load and improve efficiency during transport ventilation



For a personal demonstration, contact your account manager or email us at

info@hamilton-medical.com!



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