May 14th, 11:30 AM - 1:30 PM

Pediatric Readiness in the Ambulatory Care Setting

Mary Haywood
Children's Mercy Hospital

Chris Kennedy
Children's Mercy Hospital

Robert D. Schremmer MD
Children's Mercy Hospital

Emily Cramer
Children's Mercy Kansas City

Kevin Meilak MD
Children's Mercy Hospital

Ambulatory Setting Emergencies Occur 42 times per Year on Average, *Are your providers prepared?*

BACKGROUND

- Emergent presentations in ambulatory settings are uncommon but can be life threatening
- Many clinicians believe they do not occur
- Most offices are not prepared to handle these presentations:
  - Lack of equipment
  - Lack of protocols
  - Lack of resuscitation skills
  - Lack of awareness, and
  - Reliance on EMS to help
- Studies utilizing traditional simulation showed subjective improvement in office preparedness
- There have been no studies utilizing rapid cycle deliberate practice simulation (RCDP)

GOALS

- Assess perceived preparedness and knowledge gaps of ambulatory pediatric providers
- Identify latent safety threats (LSTs) affecting preparedness by combining simulation based clinical system testing (SbCST) with RCDP concepts.

METHODS:

Cross-Sectional Electronic Survey
- 31 Questions

68%
10⁺ Years
Provider Experience

Multiple Facility Types & Provider Disciplines
- General pediatrics
- Family medicine
- Urgent care

Figure 1:

Most Common Presentations Requiring Transfer:
Ranked Highest (1) to Least (9)

Category	Rank
Respiratory Distress/Failure	1.51
Dehydration	3.07
Sepsis/Infection	4.05
Behavioral Health	4.74
Trauma	5.12
Altered Mental Status	5.37
Seizures	5.49
Cardiac Rhythm Disturbance	7.07
Cardiac Arrest/Asystole	8.52

Figure 4:

Strengths:
98% Competent, Proficient or Expert
- Breathing/Ventilation Assessment
- Oxygen Assessment & Use of Pulse Oximeter
- Circulation Assessment

Opportunities:
59% Novice or Advanced Beginner
- Establish Peripheral IV Access
- Establish Vascular Access via IO

RESULTS:

Participants answered questions related to emergency treatment by most common type (Figure 1) and frequency (Figure 2), as well as assessing their own comfort level and proficiency in treatment of specific conditions.

In rating educational needs, 73% of participants (24/33) selected Respiratory Distress/Failure as the top priority, where only 15% (n=40) rated themselves as expert (Figure 3). Strengths and opportunities for learning were identified (Figure 4).

Among the various teaching methods, Virtual Interactive Case Studies was most preferred, with 86% (n=43) of participants agreeing (Figure 5).

Figure 2:

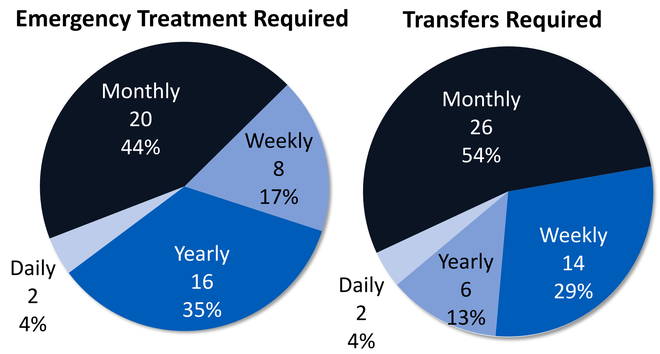

Figure 3:

Comfort with Initial Management of Respiratory Distress/Failure

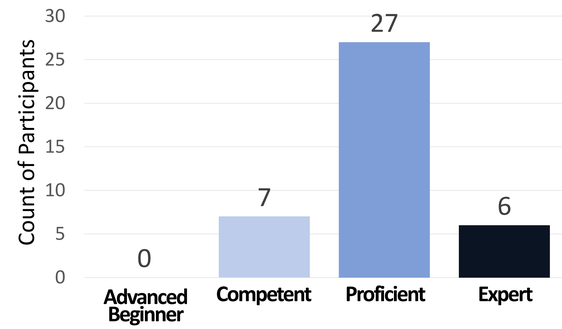

Figure 5: Effective Learning Methods *(Agree Strongly or Somewhat)*

Virtual Interactive Case Studies	On-site Drills/ Simulations	Virtual Lectures	On-site Lectures Lectures
86%	79%	74%	67%

NEXT STEPS:

Data analysis will continue. Outpatient practices are being recruited to participate in SbCST and a RCDP simulation on respiratory distress. An observational form will be utilized by simulation staff to note any LSTs observed.

- LSTs and solutions will be sought from staff
- Post-simulation survey for feasibility & utility
- Qualitative data: Inductive, thematic approach

UMKC School of Medicine
KU School of Medicine, The University of Kansas

Mary Haywood, DO FAAP; Chris Kennedy, MD FAAP; Robert Schremmer, MD FAAP FACEP CHSE; Kevin Meilak, MD FAAP; Emily Cramer, PhD MA BA

Children's Mercy Kansas City