CT EMSC Advisory Committee 12-3-18

Agenda

9:00-9:10AM	**INTRODUCTIONS** **PATIENT STORIES**
9:10-10:00AM	**UPDATES:** • **E-BROSELOW** • **BAYLOR MODULES** • **NPRQC INITIATIVE** • **ECHO SERIES** • **FAMILY ADVISORY NETWORK** • **DR. MARK NOTASH – "CERTADOSE"**
10:00-10:30AM	**ALWAYS READY FOR CHILDREN (ARC) RECOGNITION UPDATE & DISTRIBUTION**

10:30-11:30AM	**WORKING GROUPS (LARGE GROUP)**
	BREAK OUT WORKING GROUPS (SMALL GROUPS)
	• **ON THE HORIZON FOR 2019**
	  • **TIP OF THE WEEK**
	  • **HOSPITAL SIMULATIONS**
	• **FUTURE RESOURCES/EVENTS**

11:30AM-NOON	**REPORT OUT FROM WORKING GROUPS**

Leadership Updates

WELCOME!!

Beth Beckman, DNSc

Chief Nursing Executive, Yale Health Systems

Jason Malia, MHA, BSN, RN, NEA-BC, C-NPT

Clinical Program Director

Denine Baxter ~ We thank you for your continued support, dedication, and hard work over the years!

Congratulations to you all and we wish you happiness and success in your new endeavors!

Welcome & Patient Stories

E-Broselow

What is SafeDose?

SafeDose is an evidence-based clinical support tool for acute medication preparation and administration developed by Dr. James Broselow, recipient of the ISMP lifetime achievement award, and creator of the Broselow Tape. The SafeDose System covers both pediatric and adult patients and ensures that the intention of the drug order is realized through proper delivery and administration. SafeDose Enterprise is available as a web-based application that allows you to scan vials for clinical knowledge, exports a time stamped log to the EMR, displays clinical/medication information at a glance and provides a vital double-check for accuracy. SafeDose Mobile puts the features, functionality, and capability of SafeDose Enterprise into the palm of your hand on any device that is iOS or Android based.

What does SafeDose do?

It is an intuitive visual reference that standardizes critical medical content for infusions, IV, IM, and PO administered drugs. It instantly delivers:

- ASHP AHFS DI Essentials Monographs
- The ability to scan NDC codes to give instant access to dosing and medication information
- A patient specific single “virtual page”, showing correct dose in both mg and ml by weight and indication
- Mixing and delivery instructions
- Adverse reactions
- Y-site compatibilities
- Resuscitation Algorithms

What problems does SafeDose solve?

SafeDose addresses much of the drug delivery and administration gaps and significant risk between the drug order and final steps (barcode verification), precisely where nearly 40% of acute medication errors occur. Lacking observational studies, hidden errors go undetected as the documentation usually matches what was ordered: the evidence disappears in the patient.

Acute drug administration still involves memory, error-prone math calculations for dosing, and encyclopedic medical references that are not practical during emergencies. The sheer volume and complexity of current medications increases the chance of errors, threatens patient safety and careers. Who is SafeDose for?

SafeDose has been designed with the entire team in mind. From Clinicians ordering proper dosage, Nurses administering medications, Pharmacy preparing medications, EMS as an instant resource and Educators utilizing the knowledge available. The SafeDose Suite meets the needs for all those involved in patient care to administer safe medication delivery.

How do we implement SafeDose?

SafeDose is easily implemented via a simple hyperlink or as an optional integration via some EMR’s. There is a one hour webinar or optional onsite Super User training, then supplemented with the eLearning portal and monthly refresher webinars (on the first Tuesday from 10:00-10:30AM).

E-Broselow Usage

June	July	August	September	September mobile	October	October mobile	November	November mobile
					182	16	0	0
				2	0	5	0	0
29	207	120	20	17	35	18	17	25
			8	8	21	0	3	8
0	0	52	2	0	4	0	0	0
					0	0	0	0
					0	0	0	0
					0	43	22	0
					0	0	0	0
0	0	0			3	0	2	0
					0	0	0	0
					0	0	0	0
2	23	13	2	0	4	48	41	25
					110	5	179	7
					0	0	0	0
					0	0	0	0
					0	0	0	0
					0	0	0	0
					0	0	0	0
0	5	196	52	7	34	61	7	12
					0	0	0	0
0	18	91	38	0	63	3	24	1
					0	0	0	0
		4	2	6	0	24	25	0
174	48	371	1053	199	432	102	49	0
					0	0	2	0
					0	0	0	0
48	9	23	2	7	51	25	156	12
					0	0	26	1
					0	0	0	0
					0	0	0	0
					0	0	50	0

Count of Hospital	Sum of June	Sum of July	Sum of August			
24	174	48	427			
2	0	18	91			
1						
1						
2	48	14	219			
2	31	230	133			
Totals						
32	253	310	870			

Count of Hospital	Sum of September	Sum of September mobile	Sum of October	Sum of October mobile	Sum of November	Sum of November mobile
32	1179	246	939	350	603	91
Totals		1425		1289		694

Baylor Modules

CT EMSC has contracted with Pediatric Learning Solutions and Texas Children's to provide emergency clinicians access to on-line modules in the Emergency Department Learning Library. All modules were developed in collaboration with subject matter experts from the Children's Hospital Association. This standardized, evidence-based, 24/7 resource provides foundational pediatric knowledge and just-in-time education to clinicians (with CEU credits). Emergency clinicians have a wide variety of pediatric knowledge and experience—we have selected 37-modules to fit this diversity.

The modules are intended to develop staff competencies and confidence when they have limited hands-on experience with actual patients and disease processes. CT EMSC has contracted for monthly "seats". To "reserve a seat" you must complete a registration. You will receive a username/password for access during the subsequent calendar month. NOTE: you can participate beyond one month but will need to re-register using this process.

This pilot program will take place from 4.1.2018 through 3.1.2019.

Thank you in advance for your participation,

Marc, Chris and Vicky (on behalf of the CT EMSC advisory committee)

How to enroll (first come first serve):

STEP 1: Complete registration for program at http://bit.ly/2DKtAkQ

STEP 2: During the FIRST WEEK of the NEXT CALENDAR MONTH you will receive explicit instructions on how to access the modules (including username and password). Your access will be for a 30 day period **for that calendar month**. If you do not receive this code or have any issues please contact cristina.carusone-biceglia@yale.edu

STEP 3: When you log-in to the Texas Children's Website you will have a "dashboard" with 37 diverse elective modules that we have collated (complete list is below). After completing a module you can obtain CEU credit through the site.

STEP 4: Please complete the two assigned modules on status asthmaticus and epilepticus and then select 2-3 additional modules that are of interest.

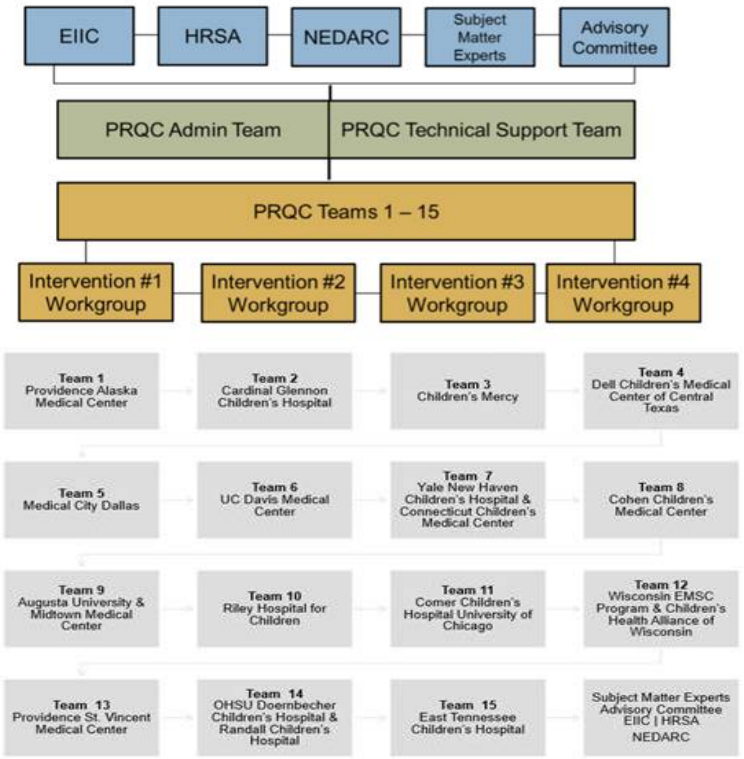
STEP 5: Provide feedback to CT EMSC and apply what you learned to your patients.

STEP 6: Encourage your colleagues to sign up to participate in this program!

Table 1. Pediatric modules

"ASSIGNED" LEARNING MODULES (complete both + 2-3 elective)
1. Status Asthmaticus
2. Status Epilepticus
"ELECTIVE" LEARNING MODULES (complete 2-3 that are most interesting to you)
1. Basic Principles of Oxygen Therapy, Specialty Gases and Noninvasive Ventilation
2. Caring for the Behaviorally Challenged Patient
3. Child Abuse and Neglect
4. Diabetes Mellitus
5. Diabetic Ketoacidosis
6. EMTALA Overview
7. Fluid and Electrolyte Management: Dehydration
8. Fluid and Electrolyte Management: Physical Assessment
9. Fluids and Electrolytes: Laboratory Assessment of Imbalances
10. Lower Airway Diseases
11. Medication Error Reduction
12. Pediatric Restraints and Seclusion
13. Pediatric Toxicology Exposure
14. Sickle Cell Crisis
15. Congenital Heart Disease: An Overview
16. Assessment of the Critically Ill Child
17. Care of the Pediatric Patient with Suicidal Ideation
18. Management of the Difficult Airway
19. Pediatric Sepsis
20. The Deadly Triad of Trauma
21. Pediatric Orthopedic Trauma
22. Pediatric Traumatic Brain Injury
23. Meningitis and Encephalitis
24. Basic Medication Calculation
25. Respiratory Inhalation Medications
26. Pediatric Assessment: The Respiratory System
27. Procedural Sedation in the Pediatric Patient
28. Pain Management: Pain Pathophysiology
29. Pain Management: Pharmacological Management of Pediatric Pain
30. Pain Management: Non-Pharmacological Therapies in the Management of Pediatric Pain
31. Introduction to Arterial Blood Gas Interpretation
32. Hemodynamic Monitoring
33. Vasoactive Medications
34. High-Alert Medications
35. Hydrocephalus

PRQC Team Structure



The "New England EMSC Team"–
Trainers:
Dr. Mariann Nocera, Dr. Michael Goldman, Dr. Marc Auerbach, Victoria Barnes and Tom Martin
Administrative Support:
Cristina Carusone-Biceglia

State	Hospital Name	Role in PRQC
Connecticut	Connecticut Children's Medical Center	Training Site
Connecticut	Yale New Haven Children's Hospital	Training Site
Connecticut	Greenwich Hospital	Affiliate Site
Connecticut	Hospital of Central Connecticut	Affiliate Site
Connecticut	Saint Mary's Hospital	Affiliate Site
Connecticut	Saint Raphael Campus	Affiliate Site
Connecticut	Stamford Hospital	Affiliate Site
Connecticut	The Charlotte Hungerford Hospital	Affiliate Site
Vermont	Springfield Hospital	Affiliate Site
Rhode Island	Westerly Hospital	Affiliate Site

1. Choosing a Bundle:
   - Vital Sign Cards
   - Weight in Kilos
   - Interfacility Transfer
   - Disaster

https://emscimprovement.center/collaboratives/PRQuality-collaborative/prqc-members-site/prqc-intervention-bundles/

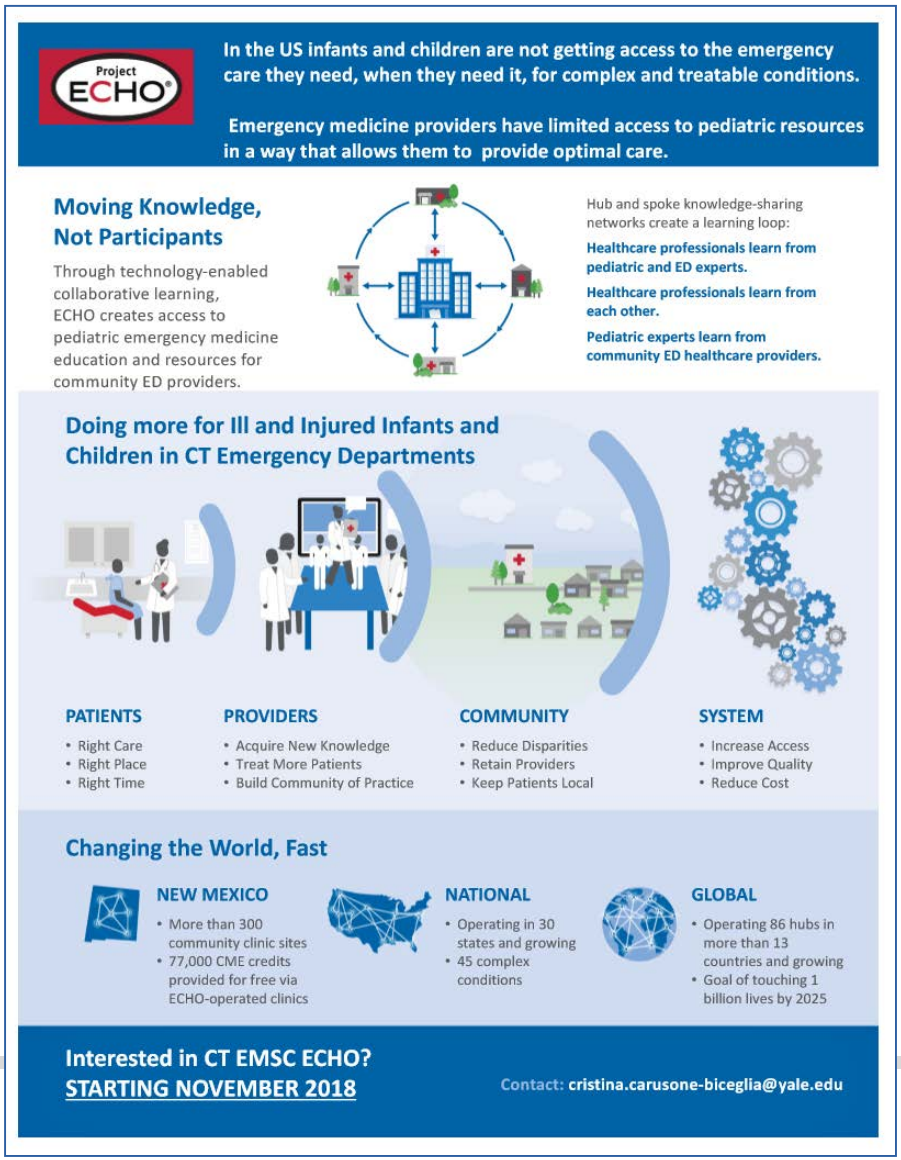
2. Completing DUA

3. Completing AIM Statement

4. Completing Environmental Scan

5. Completing IHI Modules

ECHO Series



To register: https://yalesurvey.ca1.qualtrics.com/jfe/form/SV_5sQfQHAh1leiqMZ

As participants in the PEM ECHO, we hope that (1) you can commit to attending 8/12 sessions and (2) are willing to present cases during the ECHO sessions. We will help in every way with case write ups and presentation!!

You can also visit http://ct-aap.org/pemecho for this information as well as ppt slides, meeting recordings and handouts related to each topic.

TOPIC: PEM ECHO SERIES

TIME: 1-2pm (2nd Thursday of each month)

Dec. 13th - Abdominal Pain - *Dr. David Stitelman*

Jan. 10th - Bronchiolitis - *Dr. Michael Goldman*

Feb. 14th - Vent Management - *Dr. Ric Pierce*

Mar. 14th - Febrile Infants - *Dr. Paul Aronson*

Apr. 11th - Airway/RSI - *Dr. Joshua Nagler*

May 9th - Seizures - *Dr. Niyati Mehta*

We are looking forward to starting this exciting venture together!

FAN Update

Always Ready for Children

Connecticut Emergency Department
Always Ready for Children Improvement Program

CT ED Readiness for Children:

- 457,149 children (<18y) cared for in annually (18K admitted, 4K transferred, 100-150 deaths)
  - 90% visits to community hospitals, range 1K-55K children per year across CT EDs
- Pediatric Readiness Score- developed by ACEP, ENA, and AAP to define readiness (pedsready.org)
  - Six domains: QI, policies/procedures, safety, staffing, equipment, leadership
- 2016 all CT EDs completed an online tool and received an ED Pediatric Readiness Score (PRS)
  - CT readiness: mean 70% (range of 43-100)
  - Domain Scores: QI 38%, Policy 61%, Safety 78%, Staff 42%, Equip 92%, Leadership 54%

What is the Always Ready for Children (ARC) Program?

- A program that aims to improve pediatric readiness of all EDs in CT through the development of a community of practice involving pediatric champions from CT EDs.
- All CT EDs can achieve ANY of the above recognition categories- there is no requirement for pediatric specialists, in-patient care or minimum volume of patients.

- A process to recognize pediatric improvement efforts:
  - ARC Pediatric Engaged ED: designated pediatric champion + readiness survey (any score)
  - ARC Pediatric Ready ED: engaged + PRS >70%
  - ARC Pediatric Innovator ED: engaged + PRS > 80% + sharing programs with other EDs

What is the process to participate in ARC?

1. Review ARC requirements with leadership and determine intent to participate.
2. Complete online application + designate pediatric champion(s) + upload a signed letter of intent.
3. Peer-to-peer site visit scheduled with local pediatric champion and champion from other ED in state. Goal of visit: identify target areas/action plan/timeline for improvement + build relationships.
4. Concurrent announcement of recognition status at quarterly ARC meeting- valid for three-years. EMSC to provide plaque/info for dissemination.

- Timeline: start enrollment fall/winter 2017
- NOTE: all pediatric champions will have access to community of practice resources including educational modules, policies/procedures, quality improvement modules, safety practices

What is a Pediatric Champion?

- Designated staff member working to improve pediatric care as part of CT community of practice.
- Liaison between CT EMSC and ED Medical Director, ED Nurse Manager/Director.
- Requirements: RN, MD, DO, PA, APRN, medic who maintains competency in pediatric care
- Time commitment: quarterly one-hour in person meetings of pediatric champions + one-hour per week focused on local efforts improving pediatric readiness (suggested minimum for all EDs).

Endorsement: AAP, ENA

Working to explore collaboration: CHA/ACEP

Letters from:

- Bradley Memorial (HCC)
- Bridgeport Hospital
- Bristol Hospital
- Charlotte Hungerford
- CCMC
- Danbury/Norwalk/New Milford
- Greenwich
- Hartford
- Lawrence and Memorial
- Middlesex Hospital
- MidState Medical Center
- New Britain (HCC)
- New Milford
- St Mary's/Trinity
- St Raphael's Campus
- St. Vincent's Medical Center
- Stamford
- YNHHCH

ARC Recognition

In the summer of 2018, we collaborated with EMNet on an initiative to have, at least one, designated Pediatric Champion at each of the hospitals within our state. We are excited to announce that we now have reached.....100%!

A big thank you to the PECCs, as well as the hospitals' leadership teams for their dedication and support!

CERTIFICATE OF RECOGNITION

Awarded to

KAREN PATRICK

Representative, Stamford Hospital

for your participation on the

2018 Connecticut Emergency Medicine Service for Children Advisory Committee

We thank you for your dedication to ensure that every ill and injured child receives high quality care whenever and wherever it is needed. Your support of and dedication to children is most appreciated.

Victoria Barnes on behalf of the CT EMSC leadership team

ISSUED BY

Marc Auerbach on behalf of the CT EMSC leadership team

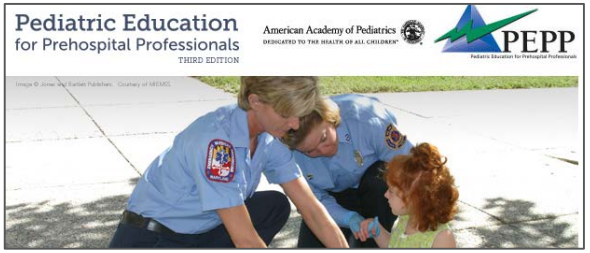
ISSUED BY

ISSUED ON DECEMBER 1, 2018

EMSC Resources

Current grant funded supports and resources EMSC can offer:

- PEPP training/certification for all Pediatric Care Coordinators
- Providing free, online continuing education in pediatric care
- EMS and ED-based simulation sessions
- Vital Sign Cards
- Tip of the Week



Age	Weight(kg)	Pulse	Resp	Systolic BP*
Newborn	3	100-180	30-60	60-70
6mos	7	100-160	30-60	70-80
1 yr	10	100-140	24-40	72-107
2	12	80-130	24-40	74-110
3	15	80-130	24-40	76-113
4	16	80-120	22-34	78-115
5	18	80-120	22-34	80-116
6	20	70-110	18-30	82-117
8	25	70-110	18-30	86-120
10	35	60-100	16-24	90-123
12	40	60-100	16-24	90-127
14	50	60-100	16-24	90-132
15+	55+	60-100	14-20	90-135

* BP in children is a late and unreliable indicator of shock

www.ctemsc.com

Age	Cuffed ET Size (mm) **	Isotonic Fluid Bolus	Maintenance (mL/hr)	Dextrose (ml of D10)	OG/NG (fr)	Foley Cath (fr)
Newborn	3.0	30	12	15	8	5-6
6mos	3.5	140	28	35	8	5-6
1 yr	3.5	200	40	50	10	5-6
2	4.0	240	44	60	10	6
3	4.5	280	48	75	10	6
4	4.5	320	52	80	10-12	8-10
5	5.0	360	56	90	10-12	8-10
6	5.0	400	60	100	12-14	8-10
8	6.0	500	65	125	12-14	8-10
10	6.5	600-700	70-75	175	14-18	8-10
12	7.0	800	80	200	14-18	8-10
14	7.5	1000	90	250	14-18	10-12
15+	7.5-8.0	1000	90-100	300	14-18	10-12

** If no cuffed tubes go up 0.5 size, depth at lip 3X tube size, use cont end tidal to confirm

On the Horizon for 2019

Hospital –

1. We will holding ED simulations, which will typically take place every 3rd Wednesday of the month, starting in early 2019.

2. Self-led modules

EMS –

1. We are happy to announce that we received a supplemental grant to help increase the number of EMS PECC's in the state. We are actively recruiting PECC's.

2. We have begun holding our PEPP courses and EMS simulations and will be rolling out our online recert modules.

3. We will be working with our Pediatric Critical Care Transport team to help facilitate EMS and ED based simulation and education.

Got Ideas?

As we think of ways to improve the resources we offer, and how to best use our grant funding.....

Tell us –
What would you like to see offered in the new year?

Which resources have you found yourself using in the past year?

What resources have not found too useful?

Have you gotten any feedback from your staff and colleagues? If so, what was it?