

ALWAYS READY FOR CHILDREN: A REGIONAL APPROACH TO FACILITY RECOGNITION IN PEDIATRIC READINESS

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Always Ready for Children

CT • MA • ME • NH • NJ • NY • RI • VT

BACKGROUND

An assessment of the nation's Emergency Departments (EDs) showed many lacked important and necessary elements to provide adequate pediatric care (Gausche-Hill et al, 2015). In 2016, the EMS for Children Program (EMSC) introduced Performance Measure EMSC04 to drive State Partnership (SP) programs to create ED pediatric recognition programs. With years of unsuccessful attempts to get this off the ground, the 8 states of the Northeast Region (see Figure 1) EMSC SP programs came together to create a regional program. These states often see the pediatric emergency care continuum cross state borders due to rurality, resources and state size. With the collective interest, creativity and motivation of these Program Managers, the Always Ready for Children (ARC) recognition program was expanded across the region from the already established Connecticut ARC program.

State Partnership Program Performance Measure EMSC04 states that "EMSC State Partnership programs aim for 25 percent of hospitals by 2022 to be recognized as part of a statewide, territorial, or regional standardized program that are able to stabilize and/or manage pediatric medical emergencies". Many states have struggled to bring this goal to fruition for many reasons including lack of state buy-in, large amount of overhead work and costs involved in creating this size of a program from scratch and lack of already created resources that fit their state-specific ED culture.

Research has shown that many EDs lack necessary elements to adequately care for pediatric emergencies, while EDs that are recognized through a state or region-wide verification program are more compliant with guidelines (Remick et al, 2016). The presence of a pediatric emergency care coordinator (PECC) was associated with an ED being more prepared to care for children (Gausche-Hill et al, 2015) and presentation to hospitals with a high pediatric readiness score is associated with decreased mortality (Ames, et al, 2019). Yet the effort needed to create a recognition program is nearly prohibitive for any single state. The ARC regional framework can provide other states and regions a jumping off point for initiating their own recognition program using the pediatric readiness score provided by the National Pediatric Readiness Assessment (NPRO) and PECC as evidence-based improvement efforts and thus ideal expectations for recognition designation.

OBJECTIVES

- **Minimize morbidity and mortality** of acutely ill and injured children in the Northeast region across the care continuum
 - recognize ED pediatric care using NPRO score and PECC
 - promote future pediatric improvement efforts
 - positively reinforce improvement efforts
 - drive QI with regional approach, friendly competition
 - bolster PECC network to support QI efforts
 - improve states' Performance Measure EMSC04
- **Collaborate** in order to:
 - distribute work and cost to create programmatic materials
 - glean additional stakeholder involvement
 - unify to improve continuum of care across state borders
 - strengthen regional collaborations

DATA AND GRAPHS

Figure 1. Location of Eight States involved in ARC

★ state of ARC origination (Connecticut)



Figure 3. Recognition Designated Levels



PROGRAM FRAMEWORK

The recognition process is underway in the Northeast region! It began with collegial discussion amongst the region's State Partnership Program Managers along with a few stakeholders, has received approval from Advisory Committees located in each state and has entered the Introductory Period in some. During this Period, all hospitals are introduced to the ARC program through public announcements, emails and mailed Introduction Packets. Some packets included provider-driven resources, including badge buddies for quick access to expected pediatric age/weight-based vitals (See Figure 2a) and a PECARN-based resource for minimizing pediatric CT scan exposure during mild head injury (See Figure 2b).

In all eight states, NPRO data is being collected to help designate an ED's recognition level (See Figure 3). Two states are ready to or already have introduced the program and one state with commitment letters submitted by EDs. Once results from the National Pediatric Readiness Assessment come in, ED facilities can begin to be recognized with events celebrating their pledge to improve pediatric emergency readiness.

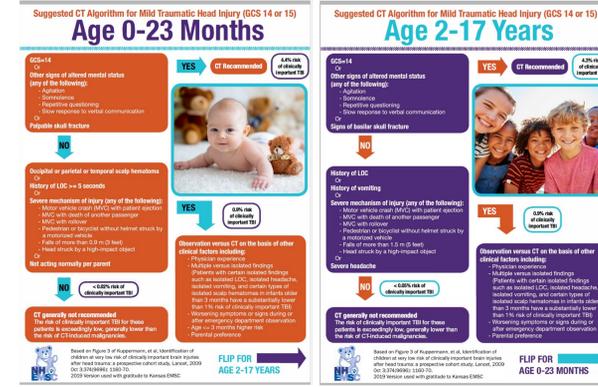
Designation will last several years before facilities will have to recommit. Additional expectations, such as improvement plans and gentle verification processes may be added to the program in the future to avoid the ceiling effect as the program evolves and more facilities reach higher levels of recognition.

Figure 2a. "Badge Buddy" Resource

Age	Weight (kg)	Pulse	Resp	Systolic BP*
Newborn	3	100-160	30-60	60-70
6 mos	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	80-118
6	20	70-110	16-30	82-117
8	25	70-110	16-30	86-120
10	35	60-110	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 less sensitive indicator of shock.

Figure 2b. CT Scan Resource



CURRENT STATUS AND MOVING FORWARD

Current state in each state:

- Connecticut – established, looking to reclassify under new regional ARC program
- Massachusetts – in the works
- Maine – in the works
- New Hampshire – introduced May 2021, waiting on NPRO scores for recognition
- New Jersey – in the works
- New York – in the works
- Rhode Island – waiting on NPRO scores for recognition and introduction
- Vermont – in the works

Moving forward:

- Recognition
- Renewal ~ 2/3 years
- Increasing expectations:
 - Improvement Plan
 - Gentle verification
 - Required regular pediatric training/education
- Translating into prehospital setting for ARC - EMS recognition

IMPLICATIONS AND RESOURCES AVAILABLE

- Improve Pediatric Readiness and therefore pediatric care
- Seamless care and provisions for pediatric care across the region
- Improved teamwork across the continuum of care across the region
- A successful collaboration to reach aim of Performance Measure EMSC04
- Continued partnership to create regional approaches to quality improvement

Resources available from ARC:

- Recognition program design and framework
- Introduction Packet
 - cover letter
 - program info
 - Badge Buddy (Fig 2a) and CT Scan Resource (Fig 2b)
- Commitment Letter
- Coming soon: recognition certificates, public relations materials, media announcements....



WITH GRATITUDE

- Efforts like this could not be done without the comradery and teamwork of the EMSC State Partnership programs. We would like to thank Connecticut EMSC for allowing us to expand their work through the region. Also a large thank you to Kansas and Connecticut EMSC SP programs for creating wonderful resources and then making them available to all.

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