Emergency Medical Services for Children (EMSC), Improving the Emergency Care System for America’s Children

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Emergency Medical Services for Children
A Program Administered by the
Department of Health and Human Services’
Health Resources and Services Administration (HRSA) Maternal Child Health Bureau (MCHB)
Objectives:

Discuss the mission and activities of the EMSC Program as they intersect with the National Emergency Medical Services Advisory Committee (NEMSAC)

Discuss the National Pediatric Readiness Project and its importance to the EMS community.
Mission Commonalities Intersecting

- **HRSA** - ensuring quality of health care for all.
- **EMSC** - ensuring all children and adolescents, no matter where they live, attend school or travel receive appropriate emergency medical care.
- **NEMSAC** - Strengthening EMS systems through education, training, equipment...
Health and Human Services (HHS)

Health Resources and Services Administration (HRSA)

Maternal and Child Health Bureau

Division of Child, Family and Adolescent Health

Emergency Medical Services for Children (EMSC) and Injury Prevention Branch

HHS Entities:

- National Institutes of Health (NIH)
- Centers for Medicare and Medicaid (CMS)
- Centers for Disease Control and Prevention (CDC)
- Agency for Healthcare Research and Quality (AHRQ)
- Administration for Children and Families (ACF)
- And others…
State Partnership Grants
All states and the territories have successfully received funding to work on EMSC initiatives to accomplish the EMSC performance measures

Targeted Issue Grants
Demonstration projects addressing EMSC Program priorities and resulting in projects that are applicable across state boarders

Pediatric Emergency Care Applied Research
(PECARN - 2001)
Research Nodes (6) that coordinate research in 18 Hospital Emergency Departments. Network represents 1.2 million pediatric visits annually. Work supported by a Central Data Management Center
EMSC Program

- **EMSC Resource Centers**
  - EMSC National Resource Center
  - National Emergency Data Analysis Resource Center

- **Interagency Agreements with Federal Partners**
  - IHS – supports full time EMSC Coordinator
  - NHTSA-Supports the Office of EMS to ensure integration of pediatric policies and procedures
  - AHRQ-support analysis of administrative data to measure pediatric health outcomes
Emergency Care For Children: Growing Pains

“Unfortunately, although children make up 27 percent of all visits to the ED, many hospitals and EMS agencies are not well equipped to handle these patients.”
Performance measures to improve pediatric infrastructure;

- Availability of EMS online and off line pediatric medical direction
- Availability pediatric equipment on ambulances
- EMS pediatric continuing education requirements
- Inter facility pediatric transfer guidelines
- Inter facility pediatric transfer agreements
- Hospital pediatric facility recognition
EMSC and Data Collection

EMSC Success with Data Collection

• Data collected from EMS agencies
  • Over **6,300** agencies surveyed
  • Overall survey response rate was 82%

• Data collected from hospitals
  • **2,644** hospitals surveyed
  • Overall survey response rate was 79%

• More information available at [www.nedarc.org](http://www.nedarc.org)
Data for Alaska with National Comparisons

- EMS and Hospitals survey data: Alaska specific and national pediatric data averages
  
  - Alaska Action Steps
    - Identify missing pediatric equipment needs.
    - EMSC supplement grant application submitted - $13,000.
    - Missing equipment purchased for services in need.

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<th>Measure</th>
<th>Alaska Data</th>
<th>National Average</th>
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<td>71%</td>
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<tr>
<td>ALS Peds CEU</td>
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From EMS Preparedness....

....to ED Preparedness
Children in ED’s

• **Most children are treated at non children’s facilities – 89%.**
  - ≤ 5% of all hospitals are recognized as pediatric or children’s hospitals.
  - Most states have one pediatric hospital. Some have none – North Dakota, Alaska, Montana
  - 27% of pediatric emergencies are treated at rural/ local community EDs.

• **50% see <10 pediatric patients per day**
  - For hospitals in remote or frontier areas this may equate to 1-2/day.

*Gausche-Hill M et al; Pediatrics, 2007*
Ensuring that Emergency Departments are Ready/Prepared for Children

*Pediatric Specific Standards/Guidelines that include:*

- Pediatric Specific Emergency Equipment
- Pediatric Specific Policies and Procedures
- Staff with pediatric training or expertise
1980’s Pediatric ED standards and guidelines first defined

1990 EMSC Demonstration Grant facilitates statewide ED guideline implementation in California.

1990 Simultaneously, the American Medical Association (AMA) publishes first set of recommendations for emergency departments treating children.
1993 Institute of Medicine’s first report on assessing the pediatric capacity of America’s emergency care system.

“All agencies with jurisdiction over hospitals should require hospital emergency departments to have available and maintain equipment and supplies appropriate for the emergency care of children.”

1995 AAP/ACEP revise AMA recommendations into policy statement on Care of Children in the Emergency Department: Guidelines for Preparedness.
Do Guidelines Ensure ED Preparedness for Kids?

* 1996 Consumer Product Safety surveys 101 hospitals National Electronic Injury Surveillance System (NEISS)
  - Purpose to define state of hospital pediatric preparedness and distribution of pediatric resources nationally.
    - 7% of hospitals had a separate pediatric-ED
    - 33% had a pediatric ward or a department of pediatrics
    - 76% still admitted pediatric patients to wards
    - 9% of hospitals without a PICU admit critically ill pediatric patients to wards
    - Hospitals often had adult size equipment but were less likely to have appropriate pediatric size equipment.

*Athey J, et al Pediatric Emergency Care 2001*
2000--EMSC brings multiple disciples and organizations together to define consensus guidelines for emergency departments caring for children.

Joint Guidelines passed and published, *Annals of Emergency Medicine* and *Pediatrics, April 2001* (Guidelines have 162 items)

17 professional organizations support the guidelines.
2002-2003 CDC adds supplement to National Hospital Ambulatory Medical Care Survey (NHAMCS)--survey of non-federal, short-stay and general hospitals in the United States.

- Emergency Pediatric Services and Equipment Supplement (EPSES).

789 hospitals surveyed

Findings:

- **50% of hospitals have 85% of recommended equipment**
- **6% of EDs have all the equipment**

*Middleton, K et al, AdvanceData, 2006*
Do Guidelines Ensure ED Preparedness for Kids?

2003 American Academy of Pediatrics survey

- “Implementation and Evaluation of Care of Children in the Emergency Department Guidelines for Preparedness Survey”

5144 surveys sent to all US hospital ED Directors – 1524 responded (30%)

26% had all recommended pediatric policies

Based on 2001 Guidelines, overall pediatric preparedness of EDs is low

Gausche-Hill M et al; Pediatrics, 2007
Current Data
Pediatric Preparedness

Availability of Pediatric Equipment & Medications

- 6% of EDs had ALL recommended equipment
- 90% had 80% of equipment

Neonatal and infant sizes of equipment most often missing 14-22%
Pediatric Magill forceps 17%
LMAs 50%
Medications uniformly available

Gausche-Hill M et al; Pediatrics, 2007
Updated Pediatric Emergency Department Guidelines Released 2009

- Collaborative initiative:
  - AAP, ACEP, Emergency Nurse Association (ENA)

- Updated components included:
  - ED Administration and identification of pediatric medical and nursing coordinators.
  - Pediatric ED Quality Improvement
  - ED Support for the pediatric patient – radiology and lab
  - Pediatric Professional Competencies
  - Availability of pediatric specific Policies and Procedures, i.e. Inter facility transfer
7.2% of hospital EDs had all recommended pediatric supplies, 45.6% had at least 85.0% of recommended supplies.

- EDs in children’s hospitals and hospitals with pediatric intensive care units (PICUs) were more likely to meet guidelines for pediatric emergency department services, expertise, and supplies.
- Most likely to have resuscitation supplies (95.5%).
- Least likely to have airway management supplies (14.7%) and vascular access supplies (15.8%)

Schappert, Bhuiya; National Health Statistics Report, 2012
The National Pediatric Readiness Survey

Based on 2009 National Guidelines.
Developed by Readiness Working group
Web based survey
Nurse Leader to complete the survey
Released in California January 2012
National roll out-Fall 2012
National Pediatric Readiness Survey

Select Your State:

To start the survey, select your State from the drop down list, click "Get Started."

California ▼ GET STARTED >>

If you do not see your state in the dropdown list above, then your state does not have any open surveys.

Supported by:

EMSC
Emergency Medical Services for Children.

PEMSsoft

Welcome! This site is for hospital professionals who have been invited to take an on-line survey regarding the pediatric readiness of hospital emergency departments.

We recommend that you PRINT a paper copy of the survey FIRST before you take the survey to assist you in compiling your answers. You can download a copy of the survey by clicking on the link below:

Paper Version of Survey
(for reference purposes)

To view the survey response rates, select the link below:

View Response Rates

To view the national results, select the link below:

View National Results
California Pilot

- 335 hospitals surveyed
- Survey window: Jan 17 – Apr 17
- **189 (56.4%)** responses as of March 26th
- Median time to take survey: 45 minutes
- Average Readiness Score 72.5 out of 100
Real time feedback to the sites

Pediatric Readiness in Emergency Departments Results:

Report Date: 10/31/2011 1:15:32 PM

<< Print this Page >>

Hospital Name: XYZ Hospital

Hospital Volume: 4700 pediatric patients last year (medium volume)

Nationwide Pediatric Readiness Comparison Scores (out of 100):

- **Your Hospital Score:** 68
- **Average Score of Similar Pediatric ED Volume Hospitals:** 57 (n=13)
- **Average Score of All Participating Hospitals:** 63 (n=43)

*Hospitals are grouped by pediatric emergency department (ED) volume: <3700 (low), 3700-6999 (medium), and >=7000 (high).

Note: If a score above contains the value "N/A" this indicates that the number of responses received so far is insufficient to provide an accurate average for that particular calculation.

Come back and visit our home page for updated national data.
Real time feedback to the sites
Advantages of the Current Effort

- Support from multiple national organizations
- Well thought out survey design with large pilot
- **Will be the largest ED readiness project to date**
  - CA pilot has exceeded largest current survey from EPSES
- Will provide a national picture of ED readiness for EMS planners
- Leverages previous success with EMSC performance measure data collection efforts
EMSC Next Steps

• Launch national survey to assess components that are need of support
  • Pediatric Readiness Score
  • Comparison with National Averages

• Develop local multi-organizational coalitions to support ongoing quality improvement

• Develop resources to facilitate the process
  • ENA inter-facility transport tool kit
  • Purchasing cooperatives
NEMSAC Involvement

- Awareness and promotion of the initiative
  - State Partnership Managers will serve as point of contact
- Provide input to the EMSC Program on
  - Potential additional collaborations
  - Dissemination techniques
  - Outputs needed to make systems improvements
SAVE the DATE!

EMSC DAY
Wednesday, May 23, 2012
Additional Resources

www.childrensnational.org/emsc

www.nedarc.org
Additional Information:

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