Ensuring Pediatric Safety in General Hospitals

January 7, 2014

3:00 pm-4:00 pm (EST)

Welcoming Comments



Deborah Morris Nadzam, PhD, RN, BB, FAAN
Project Director, JCR Partnership for Patients
Hospital Engagement Network
Joint Commission Resources, Inc.



Missy Shepherd
Network Director
Children's Hospitals' Solutions for Patient Safety
Cincinnati Children's Hospital Medical Center

Intent Of Today's Call

Ensure that all general hospitals are ready to safely treat pediatric patients.

Framing Our Discussion

- Priorities and urgencies for pediatric safety in general hospitals
- Areas of vulnerability in the general hospital setting for pediatric safety
- The significance of tracking pediatric harms
- Pediatric patient experiences and guidelines for patient and family engagement in pediatric populations

Polling Activity

Who is on the call today?

- 1. Hospital
- 2. HEN Director
- 3. HEN Staff
- 4. Medicaid Medical Directors (MMD)
- 5. QIO
- 6. Federal Agency Partner
- 7. Patient / Patient Advocate
- 8. Other

A Patient Story



Carrie GarmanPatient Advocate

Welcoming Comments



Dennis Wagner and Paul McGann, MD
Co-Directors PfP
CMS

Hospital Polling Activity

Is your hospital currently tracking pediatric harm?

1. Yes

2. No

Hospital Polling Activity

Does your hospital staff receive specific training on how to treat pediatric patients?

1. Yes

2. No

Hospital Polling Activity

Do your front line staff members receive training on how to manage pediatric patients following treatment?

1. Yes

2. No



Impact of Medicaid Expansion on Pediatric Populations



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Project Director, JCR Partnership for Patients Hospital Engagement Network
Joint Commission Resources, Inc.





On a Journey toward Zero Harm

Stephen Muething, MD
Clinical Director
Children's Hospitals' Solutions for Patient Safety
Vice President, Safety – Cincinnati Children's
Hospital Medical Center

Our Mission

Working together to eliminate serious harm across all children's hospitals in the United States



78 Hospitals—33 States and D.C.

National Children's Network

Washington D.C.:

. Children's National Medical Center

Arkansas:

· Arkansas Children's Hospital

Alabama:

· Children's Hospital Alabama

. Phoenix Children's Hospital

California:

- . Children's Hospital and Research Center Oakland
- · Children's Hospital Central California
- . Children's Hospital Los Angeles
- CHOC Orange County
- Loma Linda University Children's Hospital
- Lucile Packard Children's Hospital at Stanford (Palo Alto)
- · Miller Children's Hospital
- · Rady Children's (San Diego)

Colorado:

· Children's Hospital Colorado

Connecticut:

- Yale New Haven Children's Hospital
- . Connecticut Children's Medical Center

Delaware:

- . Nemours Children's Hospital
- Alfred I. DuPont Hospital for Children (Wilmington)

Florida:

- · Miami Children's Hospital
- · Wolfson Children's Hospital
- . St. Joseph's Hospital

. Children's Healthcare of Atlanta

. Kapiolani Medical Center for Women and Children

Illinois:

- · Advocate Children's Hospital
- · Lurie Children's Hospital (formerly Chicago Children's Memorial Hospital)

· Riley Children's Hospital (Indiana University Health)

Kentucky:

. Kosair Children's Hospital

Louisiana:

· Children's Hospital - New Orleans

- . Boston Children's Hospital
- . Floating Hospital for Children at Tufts Medical Center

Michigan:

- Helen DeVos Children's Hospital (Grand Rapids)
- . University of Michigan C.S. Mott Children's Hospital (Ann Arbor)

Minnesota:

- . Children's Hospital and Clinics of Minnesota
- . Mayo Eugenio Litta Children's Hospital
- . University of Minnesota Amplatz Children's Hospital
- Gillette

Missouri:

- · Cardinal Glennon Children's Medical Center
- . Children's Mercy Hospitals and Clinics (Kansas City)
- · St. Louis Children's

North Carolina:

· Brenner/Wake Forest

Nebraska:

. Children's Hospital and Medical Center

New Hampshire:

. Children's Hospital at Dartmouth-Hitchcock Medical Center

- . Long Island Jewish Cohen Children's
- NYU Langone Medical Center
- · Upstate Golisano
- . The Children's Hospital at Monetiore
- · Winthrop University Hospital

Ohio:

- · Akron Children's Hospital
- · Cincinnati Children's Hospital
- Cleveland Clinic
- . Dayton Children's Hospital
- · Mercy Children's Hospital
- · Nationwide Children's Hospital
- · Rainbow Babies and Children's Hospital
- · Toledo Children's Hospital

Pennsylvania:

- . Children's Hospital at Lehigh Valley Hospital
- . Children's Hospital of Philadelphia (CHOP)
- · Children's Hospital of Pittsburgh
- Penn State Hershey Children's Hospital
- · St. Christopher's Hospital for Children

Rhode Island:

· Hasbro Children's Hospital

South Carolina:

- · Greenville Hospital System Children's Hospital
- · Palmetto Heath Children's Hospital
- The Children's Hospital Medical Center University of South Carolina

Tennessee:

- · Children's Hospital at Erlanger
- . Children's Hospital at Vanderbilt (Nashville)
- · East Tennessee Children's Hospital
- · LeBonheur Children's Hospital
- · Niswonger Children's Hospital

Texas:

- . Children's Medical Center Dallas
- · Cook Children's
- · Covenant Children's Hospital
- Texas Children's Hospital (Houston)

Utah:

. Primary Children's Medical Center (Salt Lake City - Intermountain)

Virginia:

- . Children's Hospital of the King's Daughters
- · Inova Children's Hospital

Vermont:

· Vermont Children's Hospital

Washington:

- · Mary Bridge Children's Hospital
- · Seattle Children's Hospital

Wisconsin:

· Children's Hospital Wisconsin (Milwaukee)

Our Goals

- —40 percent reduction in hospitalacquired conditions (HACs)
- -20 percent reduction in readmissions
- —25 percent reduction in serious safety events (SSEs)

Our Initial Design Organizational Safety Governance (SG) Leadership Methods (LM) Error Prevention (EP) Safety High Performing Microsystem and Teams Culture Cause Analysis (CA) (VAP) (CA-BSI) Obstetrical Adverse Events (OBAE) entilator-Associated Pneumonia Venous Thromboembolism (VTE) Site Infections (SSI) Stream Infections Events (ADE) Jrinary Tract Infections Pressure Ulcers (PU) Falls (SF) Drug Re-Admission A-Blood dverse Reduce by 20% the readmit rate across the OCHSPS National Children's Reduce HAC's by 40% across the OCHSPS National Children's Network by 12/31/14 Children's Hospitals' Network by 12/31/14 Solutions for

Patient Safety
Every patient. Every day.

Our Approach

Leadership Matters

Executive leadership is a critical aspect of successful improvement in pediatric patient safety. The network has designed efforts to inspire and continuously develop the safety leadership skills of the executives who lead our network hospitals.

Our mission motivates all that we do

We must act with urgency and discipline, focusing on outcomes through a combination of high reliability concepts and quality improvement science methods. We learn through testing and partnering with families and front-line staff.

Network hospitals will NOT compete on safety

Instead, the SPS network is built on the fundamental belief that by sharing successes and failures transparently and learning from one another, children's hospitals can achieve their goals more effectively and quickly than working alone.

Our Approach (continued)

"All Teach, All Learn"

SPS network hospitals must humbly share and gratefully learn from others. Accomplishing our goals requires focus on the detailed processes and cultural elements that lead to safer hospitals; guidance and support for hospital teams as they build the capacity for change; and facilitating relationships within the network to broaden and accelerate learning.

Network hospitals must commit to building a "culture of safety"

Hospitals within the network are employing the cultural transformation strategies of other high reliability industries to significantly reduce harm in their institutions. This emphasis on creating a culture of safety within pediatric institutions is a unique aspect of SPS's approach.

DISCOVERY

- Led by innovators & researchers
- Idea testing using QI methodology
- Identify new HACs to introduce to network

Our Journey Toward Zero Harm

Active Network Improvement

PIONEER

- Early adopter network hospitals
- Establish pediatric definition for new HAC
- Develop best practices & prevention standards

HIGH RELIABILITY CULTURE *

- All network hospitals adopt the standard measure of serious safety event
- Cause analysis, error prevention, & leadership methods trainings

AVIATOR*

- All network hospitals adopt HAC goal, definition, measurement, & prevention standard
- · Focus on implementation
- Achieve network reduction goal

ORBITING*

- All network hospitals focus on sustaining improvement
- Monitor performance & additional best practices

EXPLORER

 Spread pediatric standards & best practices outside network to all hospitals across the United States

Solutions for Patient Safety

Vulnerabilities for Pediatric Patients in General Hospitals

CLA-BSI's in NICUs



- ADEs
 - Dosing
 - Medication Delivery

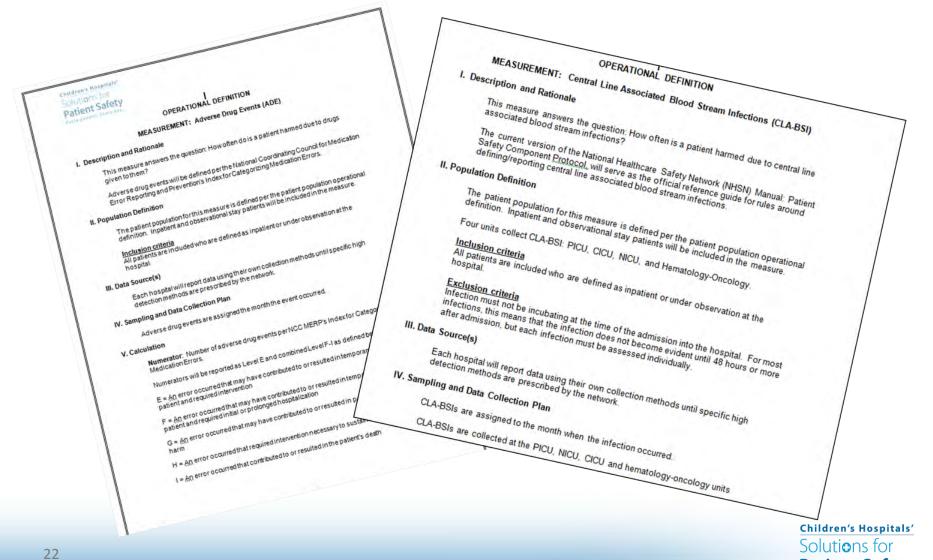


Our Operational Definitions and Recommended Prevention Bundles

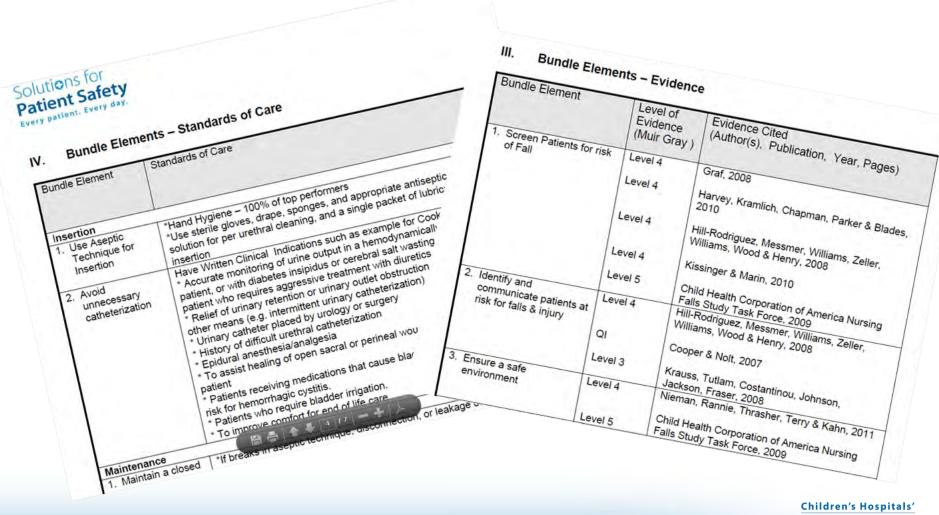
 We have developed Operational Definitions and Prevention Bundles for all 9 HACs and Readmissions for **Pediatrics**

 They are all located on our public website: www.solutionsforpatientsafety.org

Operational Definition Example



Prevention Bundle Examples



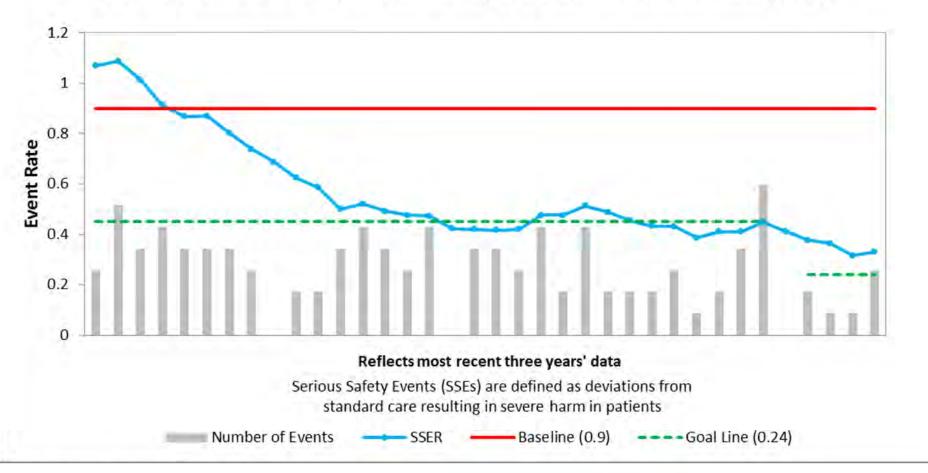
Our Results

As of September 30, 2013, the SPS network has:

- Reduced average rate of five hospital-acquired conditions:
 - Catheter-associated urinary tract infections
 - Injuries from moderate or greater falls
 - Obstetrical adverse events
 - Surgical site infections
 - Central line associated blood stream infections
- Reduced harm rates for adverse drug events and pressure ulcers

Ohio Children's Hospitals' Solutions for Patient Safety Serious Safety Event Rate (SSER)

SSER is Expressed as a Rolling 12 Month Average per 10,000 Adjusted Patient Days (APD)



^{*}Reflects 8 Children's Hospitals in Ohio



Learn More

To ask questions or gain access to the SPS hospital-only SharePoint site, please email ochsps@cchmc.org

To learn more about SPS, visit our website at www.solutionsforpatientsafety.org

Assessment and Management of Pediatric Patients



Karen Frush, MD

Duke University Health System



Teresa Riech, MDOSF Saint Francis Medical Center



Pediatric Patient Safety in the Emergency Department

Pediatric Emergency Physician
Chief Patient Safety Officer
Duke University Health System
Co-Executive Director
LifePoint HEN







Pediatric Patient Safety in the Emergency Department

- Why children are at increased risk of medical error in the emergency/acute care setting
- Strategies to reduce harm
 - Simple solutions you can implement today
 - Training and Preparation for Pediatric Emergencies
 - Solutions through technology







Risks to children in the emergency and acute care settings



- Children represent 27 percent of all ED visits (80% of visits to non-Children's settings)
- Only 6% of EDs have all supplies deemed essential for managing pediatric emergencies; about half of hospital EDs have 85% of these supplies
- Although pediatric skills deteriorate quickly without practice, pediatric continuing education is not required for many pre-hospital EMTs
- Pediatric treatment patterns vary widely across emergency providers (lack of EB guidelines)
 - Stabilization, under-treatment of pain; child abuse

Institute of Medicine, Committee on the Future of Emergency Care in the United States Health System. Washington, DC: National Academies Press; 2006



"Emergency Care of Children: Growing Pains"



"Children represent a special challenge for emergency and trauma care providers, in large part because they have unique medical needs in comparison with adults"

- VS vary with age; what's normal for an adult may signal distress in child
- Anatomic differences: intubating a young child with a (relatively) big head, shorter trachea and higher larynx
- Medication doses calculated for size of each child
- Emotional reactions vary with age
 - AMS in 2 yr old who is "too cooperative"



Institute of Medicine, Committee on the Future of Emergency Care in the United States Health System. Washington, DC: National Academies Press; 2006

Risks to Children in the ED and Strategies to Mitigate/Eliminate Harm



- ED Environment: hectic, interrupted, unpredictable
- Teamwork training: mutual support, task assistance
- Medical devices Monitors
 - VS parameters: no forcing function
 - Alerts and alert fatigue
- Pediatric-specific risks
 - What's "normal"?
 - Maintaining competencies

- Assess devices; create checklists, guidelines
- IOM: Identify pediatric SME provide ongoing training, CME, equipment needs
- JCR, AAP: LILY team Lifesaving Interventions for Little Youth (attached)

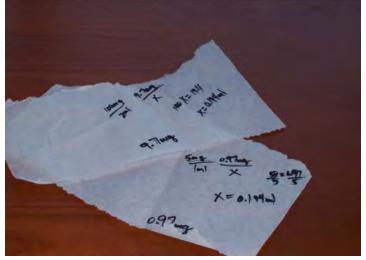


Improving Pediatric Medication Safety



- CPOE with pediatric dosing can significantly decrease ADEs due to ordering errors
 - Reduction in serious pediatric medication errors by 55% and preventable ADEs by 17% Pediatrics 2009;123(4):1184-1190.
- Administration errors: most pediatric doses still require math to convert
 - Lack of standard "pediatric formulation"







Strategies to Improve Pediatric Medication Safety



- Standardize your own formulations
 - Decrease number of formulations available for use
- Provide pre-calculated doses for medication ordering and administration
 - Many centers use length-based tape and pre-calculated emergency medications (mg and mL)
- Implement barcode medication administration (BCMA)
 - BCMA can reduce the relative risk of targeted, preventable adverse drug events by 47% The Journal of Pediatrics.
 2009;154(3):363-368.e361
- Include Clinical pharmacists on the team
 - Pharmacist on units were associated with up to 66% decrease in preventable ADEs. Arch Intern Med 2006;166:955-64



"Nothing about me without me"



Include Parents and kids on your team!





Tracking Pediatric Harm in a General Hospital



Teresa Riech, MD, FAAP, FACEP

Director, Pediatric Emergency

Department, OSF St. Francis

Medical Center, Peoria, IL



The Burden of Safety in the ED

- 80,000 visits/year
- 18,000 pediatric visits (22%)
- Children lumped in with adults...what are the unique challenges of this model?
 - Equipment
 - Medications
 - "switching gears" (the 0-100 year old range)
 - Training; inexperienced nurses, attrition, etc.
- What do we do to address this challenge?
 How do we identify harm and potential harm?
 How do we prevent repeat incidents once we identify a problem?





Best-Practices

- Status epilepticus
- · DKA
- Head injury
- Bronchiolitis
- Febrile
 Infant
- PEWS

Training

- Simulation
- Nursing training
- ENPC
- 12 hours of specialized lectures from experts
- · CME

CQI Process

- Case review
- Peminic
- Chart Audits

Creating the Environment

- Special equipment
- Scales locked out
- Moveable peds carts
- Child life



Pediatric QI Chart Audit Schedule

	January	February	March	April	May	June	July	August	September	October	November	December
Abuse	х	х	х	х	х	х	X	x	х	х	х	х
Asthma		Х			X			х			x	
DKA	х			x			x			х		
Head Trauma					х	х			х	х		
Pain control for fractures			х	х				х	х			
Seizures			x			х			x			X



Tracking....

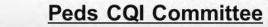
- Audit indicators:
 - Asthma—peak flows
 - Head injury---CT scan and why (lead to CDU protocol)
 - Pain management—lead to addition of intranasal medications, increase in monitoring of kids receiving narcotics or benzos
 - DKA—use of bicarb and insulin bolus
 - Tracking weights
- Deaths, bounce-backs to PICU, transfers, child abuse, resuscitations

Peds CQI Function

Quality and safety council







- CQI Coordinator
- Director of Peds ED
- Nursing Director
- Nursing staff
- CCLS
- Pharmacy
 - Peds ED physician







HEN Responder



Patrice Mayo
Tennessee Hospital Association

Patient and Family Engagement (PFE) and Pediatric Populations



Chrissie BlackburnPatient Advocate

Pediatric Patient Passport Mattel Children's Hospital UCLA



Gitanjli (Tanya) Arora, MD

Pediatric Hospitalist

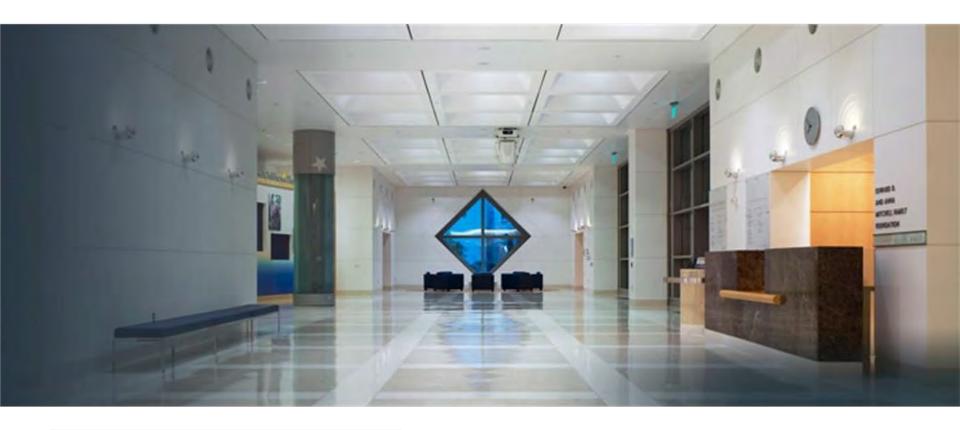
Chair of Patient and Family Centered

Care Committee













Pediatric Care in Emergency Department

- Kids don't always look as sick as they are.
- Kids can get sick fast.



PATIENT PASSPORT

NAME:	UCLA MRN:	DOB:
PRIMARY SERVICE (ATTENDING):	
OTHER INVOLVED S	ERVICES:	
DIAGNOSIS:		
PROBLEM LIST:		
DRUG ALLERGIES: _		
OTHER SENSITIVITI	ES/CONSIDERATIONS:	
This patient is medica ATTENTION ED PHY - IF CHECKEI	immediately upon arriv	ess, this patient should be assessed ral.
38 3 X X X X X X X X X X X X X X X X X X	ENDATIONS TO BE STARTED WHILE BROTICS, INITIAL LABS, FREQUENCY	
- UCLA RRMC ED P	more frequent if ill: Q4 Q2 LEASE PAGE PEDIATRIC HOSPITALISERVICE UPON ARRIVAL TO TRIAGE 111 and ask to page the pediatric s	IST (90054) OR PEDIATRIC E. If outside RRMC call Hospital
0.000		A. Carrier and A. Car
PRIMARY ATTENDING	AD NAME	DATE
PRIMARY ATTENDING	ID SIGNATURE	



PEDIATRIC PATIENT PASSPORT INSTRUCTIONS

The Pediatric Passport has been developed by parents, pediatricians, and emergency department doctors and nurses as a way for the patient's pediatrician to identify the most immediate medical needs for triaging patients arriving to the Emergency Department. This will allow pediatric patients to be more efficiently and effectively triaged when arriving to the RRMC ED.

Please have an Attending Physician complete this one page form outlining the patient's immune status, important recommendations if any, and frequency of monitoring. This form can be completed in the outpatient setting by the patient's primary pediatrician, medical home, or subspecialist or in the inpatient setting by the pediatric hospitalist or subspecialist.

The Pediatric Patient Passport can be found on Forms Portal #16246.

Patients should be instructed to keep the Pediatric Patient Passport carefully and present on arrival to RRMC ED.

Thank you,

Mattel Children's Hospital UCLA Patient and Family Centered Care Committee

Does the Passport work?

- Assess time from Triage to Emergency Department room
- Assess time to intervention (IV fluids, antibiotics, other medication)
- Assess time to obtain Pediatric Consultation
- Assess time to be admitted to Pediatric Ward

"The Pediatric Patient Passport has made me feel as though the Emergency Department is a life-saving place instead of a life-risking one for my medically fragile child. With a history of cancer, 3 liver transplants, and a severe brain injury, my daughter will always have a compromised immune system and the inability to communicate changes in her condition. I have always avoided the Emergency Department, as there seems to be no better place to expose her to communicable illnesses. Additionally the Emergency Department, often unfamiliar with her history, would delay my daughter's treatment until her subspecialty physicians could be contacted. With a history of rapid decline and septic shock, this waiting time is highly stressful and potentially very dangerous. The Pediatric Passport gives me the confidence to take my child to the Emergency Department and know that we have written recommendations from her subspecialty doctors. I know this will help her be appropriately triaged and have much needed treatment started early even while her subspecialty physicians and medical records are being consulted."

Patient and Family Engagement (PFE) Guidelines



Lisa MorriseNational Content Developer

PFE Guidelines for Pediatric Patients Seen in Adult Hospital Settings

Ask the patient and the parents or guardians,
 "What matters to you on this visit?"

Questions Patients and Parents should ask:

 Do you have equipment and supplies just for children or teens?

Do you have a children's doctor available?

PFE Guidelines for Pediatric Patients Seen in Adult Hospital Settings

 Does your pharmacy regularly give children's medications? Do they figure out how much to give using the child's weight in kilograms?

 How can we help my child feel comfortable with procedures? May my child watch TV, draw or do some other activity?

PFE Guidelines for Pediatric Patients Seen in Adult Hospital Settings

- Do you have an experienced staff member for drawing blood or starting IVs on babies, children and teens?
- If my child is medically complex: Will you talk with my child's doctors? Will you take my child to another hospital that is able to provide the care she needs?
- Please explain what is happening in a way my child and I can understand.

HEN Responder



Jan Englert
Premier Healthcare Alliance

Commitments



Lt. Fred Butler, Jr. CMS

Hospital Polling Activity

How likely is your hospital to implement procedures to track pediatric harm within the next 6 months?

- 1. Very likely
- 2. Somewhat likely
- 3. Somewhat unlikely
- 4. Not at all likely
- 5. Already tracking pediatric harm

Hospital Polling Activity

How likely is your hospital to implement formal training procedures for front line staff to manage pediatric patients within the next 6 months?

- 1. Very likely
- 2. Somewhat likely
- 3. Somewhat unlikely
- 4. Not at all likely
- 5. Already training staff to manage pediatric patients

HENs Polling Activity

Is your HEN committed to working with your hospitals to ensure pediatric safety?

1. Yes, we are <u>already</u> working with our hospitals to ensure pediatric safety

2. Yes, we will make it a priority to work with our hospitals this year to ensure pediatric safety

Closing Comments



Dr. Chisara Asomugha, MSPH, FAAP

Senior Technical Advisor

Medical Officer, Center for Clinical Standards & Quality

Centers for Medicare & Medicaid Services

Thank you for joining us today!

Upcoming Events:

Formative Evaluation Event

January 14, 2014

OB Adverse Events

January 21, 2014