Preparedness

Personal reflections

Are you prepared for this?

Emergency Pediatric Office
Preparedness: Ready or Not?

Chris Kennedy, MD
Professor of Pediatrics, UMKC
Division of Emergency Services
Director Simulation Based Research

Plan for Today…

• Case discussions
• Preparedness
• Planning/Equipment
• Disaster role

Ready? Case 1

A 15 month old boy checks into the reception desk of your office with his mother. The child is here for an acute care appointment because he woke up with a fever.
• Unfortunately you are already running 30 minutes behind so the family is asked to sit in the waiting room.
• 5 minutes later the mother yells from her seat that her child is shaking….
• What should happen now?
• Is your office ready for this event?

Capable? Case 2

A 4 month old child is scheduled for a routine visit this am.
• Upon check in mother states that she is glad she scheduled this appointment because her child is not eating due to a cold and breathing hard.
• Will the receptionist be concerned by this statement? Will the child be assessed right away?
Involved? Case 3
There is a category 4 tornado that hits 10 miles from your office that decimates the surrounding region.
• Your office is undamaged except for loss of power, and internet access.
• You get a call from EMS asking you if your office can see patients.
• How will you/your office respond?

Disclosure
I have no financial relationships to disclose or conflicts of interest to resolve.

Objectives:
At the end of today’s lecture, participants will be able to:
1. Analyze the challenges of office preparedness.
2. Learn ways to develop readiness.
3. List the needed skills and equipment required to be prepared for pediatric office emergencies

Pediatric office based emergencies are really rare events, aren’t they?
• Practice dependent
• Survey results from 51 suburban practices
  – 24 events per office per year
• A separate survey of pediatricians
  – 73% reported 1 or more per week

Most often encountered...
Office based emergencies from most to least frequent
• Respiratory emergencies including asthma
• Neurologic including seizures
• Severe infection/sepsis
• Dehydration
• Anaphylaxis

Office readiness data
• A 1985 survey revealed that offices were not prepared
  – 42% equipped with oxygen
  – 35% with bag mask devices
• The good news more offices ready in 2011
  – 98% oxygen and 96% with bag mask devices
I just renewed my PALS, I am ready aren’t I?

These courses are intended to provide the knowledge and skills training but not to provide true competence.

Readiness requires planning, preparation, practice
- System
- Team
- Individual team members

What works

- Plan/conduct an office-based readiness assessment
- Process that is streamlined and familiar
- Practice to train staff for their roles
  - all staff
  - A 2007 AAP consensus outlines these needs

Office-based readiness assessment

The goal is to determine:
- Types of emergencies most commonly encountered
- Office resources available
- EMS capability, response time
- Closest facility than can provide higher level of pediatric resuscitation
- Definitive care

The Response Plan

- Written and should detail equipment, staff training, and medications processes
- Developed by convening representative members of office team and discuss steps in managing emergencies
- Roles should be outlined/assigned
- Include times when staffing varies

Additional plan needs

- Recognition and triage
- Internal notification
- EMS activation
- Office resuscitation process/location/roles
- Documentation

Office resuscitation roles

- **Receptionist:** Triage in the waiting area, notifies the local EMS system, then provides support to family members.
- **Physician:** Directs resuscitation efforts and controls the airway.
- **Nurse 1:** Responsible for patient triage, intravenous access and drug administration
- **Nurse 2 or Medical Assistant:** Provides CPR, and a nursing assistant records events and interventions (e.g., medications given) as they occur.
Example role: Reception desk

Recognition
- Labored breathing
- Blue or pale color
- Noisy breathing or stridor
- Altered mental status
- Seizure
- Agitation (child or parent)
- Uncontrolled bleeding
- Vomiting (after a head injury)

Notify EMS
Copy documents for transfer

Resuscitation Process

- Where will the child be resuscitated?
- How will equipment and medications be organized?
- Who/how will equipment and medications get to the patient

Process: Equipment

- Group equipment by type-
- Should include Bag-mask and Oxygen
  - Should omit intubation equipment
- Vascular access
- Medication box
  - Consider focus on IM/PO/Aerosol medications
    - IM meds- Midazolam/Epinephrine
    - PO Steroids
    - Aerosol albuterol/epinephrine

Process: Equipment Organization

- Have a streamlined plan for differing sizes of equipment and know how it works
  - Could be a mini practice session
- Cart based set up allow the equipment to move to the patient
- Remove furniture from Small exam rooms

Preparation: Education

All staff
  - BLS/CPR course AHA/Red Cross
Nurses
  - PEARS/ Emergency Nursing Pediatric Course/ PALS
Physicians
  - PALS/ APLS

Staff preparation-Skills

All should be practiced on a planned schedule with an observer to provide feedback
Practice should include retrieval/assembly and usage of equipment
  - Airway management and oxygen delivery
  - Vascular access
  - Medication delivery
  - CPR/AED/Choking
Practice

• Mock codes have been shown to improve team function/job satisfaction and patient outcomes.
• Deliberate observation and debriefing can help to improve staff readiness and planning by identifying “gaps” and remedies
• Contact local EMS/Children’s Hospital to discuss help with equipment/training

Documentation

• Consider using a standardized process
• Provides prompts
• Include only salient information
• This role takes practice
• Have it ready for EMS/transport

EMS planning

Be familiar with local resources
Crisis communication- clear, simple, limited
• Include age/weight/condition/vital signs
• Office address and directions
• Advanced life support or BLS needed
• Do not hang up until EMS dispatch has verified information

Emergency Information Forms

If complex patients are cared for in the practice consider using an EIF(see resource slide for link).
• This form was developed by AAP and ACEP
• Provides EMS or any physician with a quick summary of medical problems, clinical baseline, medications disaster needs and phone numbers
• Filled out and updated regularly by primary care
• Carried by family when traveling

Disaster Planning

• Children’s needs often underserved so pediatricians must be ready
• Consider discussing this with families (see resource link for family readiness kit)
• Plan for power outages/record compromise
• How will you help other/get help when needed to care for your families
• Work with local EMS/hospitals in your region
Case 1 needs

- Stabilize a seizure patient - Skills
  - Airway/breathing
  - Vascular Access
  - Medications
  - Transfer/EMS

Case 2

This baby, when evaluated, has a respiratory rate of 68, with intercostal and subcostal retractions. Pulse oximetry, if available, reads 82%

Needs high flow oxygen ASAP

Transfer to definitive care?

Summary

- Children requiring emergency care commonly present
- An office assessment and plan needed
  - Roles/equipment/planning/documentation/EMS call
- Nonclinical personnel maybe the 1st line of triage
- Equipment needs include knowing where and how it works
- Periodic mock codes are an effective way to increase resuscitation skills and decreased staff anxiety
- Care includes proper/safe transport

Resources

- This is the policy statement and planning resource:
  - http://pediatrics.aappublications.org/content/pediatrics/120/1/200.full.pdf
- This is the comprehensive manual for office emergencies:
- This is the family disaster resource:
- This is a great resource for doctors and families:
  - http://www.officeemergencies.ca/video
- This is the link to the EIF form:

References 1

- Flores G, Weinstock DJ. The preparedness of pediatrics for emergencies in the office: What is known, what we can, and how can we do better? Arch Pediat Adoles Med 2007; 161:

References 2


References 2
References 3


References 4


References 5


Thank You

- For more information about our presentation, please contact:
  Chris Kennedy, MD
  c kennedy@cmh.edu

Q & A

The following slides are for your use

- Outline some of the roles needed for a resuscitation
- Create a badging or outline of the setup
Office based care code blue roles

The purpose of this is to begin the process to develop a simpler process. This will focus on communicating the roles and what each role needs to perform. I think it would be helpful to describe how the roles are designated.

Cart Manager Nurse Role
- Acts as manager of Broselow Cart/weight-based (Code Cart) – AED?, airway equipment, medications, IV and phlebotomy supplies
- Prepares and labels necessary medications
- If IV access available, verify IV fluids to be used in Code Blue
- Work together with Beside Nurse to set up IV fluid administration
- Restocks Broselow Cart

Bedside Nurse - Nurse Role
You should decide how this role is assigned
- Assessment and collection of data
- Performs chest compressions, as needed
- Obtain vital signs or delegate to care assistant/LPN
- Administer medications
- Assist with procedures
- Initiate placement of IV
- Obtain labs
- Call nursing report to the receiving facility

Codes in the Pediatric Office
- How roles are assigned?
  - Code badge system
  - You could set up the cart to have hanging badges or what ever you wish to designate the role
  - When the badges are gone the roles are filled
  - Each badge should have only the most salient skills as bulleted text of steps
- I have started this process in outlining what these might look like in the following slides

Charge Nurse
- Crowd control
- Assist with patient care
- Manage family when needed
- Assist with disposition
- Review Code Blue documentation

Recorder Nurse role
- Records events on Code Blue documentation forms, ensuring complete documentation of event
- Monitors and records vital signs
  - Baseline assessments
  - Medications administered
  - IV fluids administered
  - Procedures
  - Equipment/supplies
  - Collection of labs and results
**Care Assistant/LPN**
- Obtain Broselow Cart (Code Cart) and bring to location of Code Blue
- Monitor placement
- Retrieve extra supplies, as needed
- Performs chest compressions, as needed
- Assist with patient care, as directed
- Support family

**Physician Team Leader**
- Team leader who directs/collaborates/monitors/evaluates Code Blue event
- Identifies heart rhythm
- States patient assessments
- Orders medications to be administered
- Orders procedures to be completed
- Speaks to accepting facility for transfer

**Respiratory Therapist**
- Help maintain patent airway throughout Code Blue event
- Oxygen set up
- Provide bag-mask ventilation
- Suction the airway, as needed
- Assist with CPR

**Receptionist**
- Triage needs upon families presenting to sign in or when out in the waiting room.
- Call for EMS
- Makes copies of any records of events
SELF-ASSESSMENT OF OFFICE PREPAREDNESS FOR PEDIATRIC EMERGENCIES

- As you answer these questions, you may be better able to identify those areas in which your office preparedness can be enhanced.

- What emergencies have you experienced in the office setting? How often have office emergencies occurred in your practice?

- What is your office setting (freestanding office, clinic based, health center based, hospital based, other)? Are there resources outside your office on which you could call during an office emergency (eg, security, other medical or dental professionals in the same building, hospital code team)?

- What are the high and low staffing points during the times when your office is open? (Include nights and weekends if applicable.)

- What is the emergency readiness of the staff present during those times? (Include first aid, CPR, BLS, ALS, PALS, APLS, Emergency Nurse Pediatric Course, other continuing medical education, etc.)

- Have nonclinical staff been trained to recognize a potential or actual emergency?

- What anticipatory guidance and education do you provide parents regarding injury prevention, first aid and CPR training, recognizing and responding to emergencies, and accessing EMS?

- How far is your office from a site of definitive care, such as the nearest ED, or the nearest pediatric center?

- How long does it take for EMS to respond to a 9-1-1 call from your office?
• Is your waiting room under direct observation or screened frequently by a clinical staff member? Is it childproofed?

• Does your practice have a written protocol for response in an office emergency? Does that protocol cover times of low staffing?

• Do all staff members know how to access the EMS system? Staff members should be able to give the location and directions to the office, level of clinical staff present, age and condition of child (including vital signs if appropriate), desired transport location, and the level of emergency response (ALS or BLS) required.

• Do you have specific telephone triage protocols for nonclinical and clinical staff?

• Has EMS ever been to visit your office for a nonemergency call or to receive experience in evaluating pediatric patients?

• What level of provider comes when you call 9-1-1: first responder, BLS, or ALS? Does your local EMS have the necessary equipment and expertise to manage children?

• What is the point of entry for your local 9-1-1 response team (i.e., the facility to which they are required by field protocol to bring a pediatric patient)?

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• Can your pediatric center be reached by an ambulance, and does your local EMS understand the special needs of children?

• Does your office use oxygen? If so, how is it supplied? Do all clinical staff members know how to operate the oxygen canister and know where the key is kept?

• What emergency dosage strategy do you use in the office (code card, length-based tape, dosage book, no strategy)?

• What airway equipment do you stock? Do all staff members know how to locate, choose, and use the appropriate size of equipment for any given child?

• What equipment and supplies do you have on site to provide you and your staff with universal precautions?

• Does your practice care for any children who are technology dependent or have special health care needs? Do you have additional equipment or expertise if a technology-dependent child should have an emergency in your office?

• Do you have written office protocols for common office emergencies such as respiratory distress, anaphylaxis, sepsis, dehydration, and supraventricular tachycardia?

• How do you document events during an office emergency (assigned role, tape recorder, retrospective, other)?

• How do you and your staff maintain skills and readiness? (Examples include attending nursery deliveries, moonlighting in urgent care or pediatric ED, being a PALS or APLS instructor, holding regular mock office codes and scavenger hunts for infrequently used equipment, providing expert review of pediatric runs for your local EMS)