

# Office Emergencies

Keith Kerr

Dell Children's Hospital

# Office Emergencies

- Important role of pediatric primary care providers
- Optimizing pediatric primary care provider office readiness
- Parent education regarding prevention, recognition, and response to emergencies, patient triage, early recognition and stabilization of pediatric emergencies in the office, and timely transfer to an appropriate facility for definitive care are important responsibilities of every pediatric primary care provider.

# Office Emergencies

- Emergencies are common in primary care practices that provide care to children.
- In 1 study, the authors surveyed 52 pediatric offices and found that these practices saw a median of 24 emergencies per year.
- Most of the offices (82%) reported that they encountered, on average, at least 1 emergency per month.
- In another study, 62% of pediatricians and family physicians in an urban setting who were asked about emergencies in their offices reported that they assessed more than 1 patient each week in their offices who required hospitalization or urgent stabilization.

# Discounting the Need

- “Emergencies are not very common”
- We can rely on rapid response from emergency medical services (EMS) or proximity to a hospital.
- Some PPCPs have interpreted risk-management guidelines to mean that having emergency equipment and medications on site will increase their liability in emergency situations;
  - however, lack of preparation may be a true cause of increased liability.
- Other providers state that emergency equipment and medications are expensive, and they cannot afford to maintain these items.

# Office Emergencies

- Physicians with training in advanced pediatric life support (APLS) were more likely to have resuscitation equipment and to have conducted a mock code in their office.
- Other studies have supported training in basic life support (BLS) as well as advanced life support (ALS), as suggested by the American Academy of Pediatrics (AAP) policy statement published in December 2004.
- The statement suggested that pediatricians will improve the chance of survival of children who experience cardiac arrest by advocating for cardiopulmonary resuscitation (CPR) training of parents and caregivers and participating in BLS training courses as participants and instructors.

# Office Emergencies

- Although pediatric emergencies may not be common occurrences in all primary care settings, numerous studies have shown that children continue to be taken to primary care offices at the time of an emergency.
- The most common types of emergencies include respiratory emergencies, seizures, infections in young infants, and dehydration.
- Pediatricians and PPCPs may be required to provide urgent or emergent care in their offices for children with these conditions, at least until the arrival of EMS.

# Education

- Through effective parent and patient education and anticipatory guidance, some emergencies that present to the PPCP office could be prevented or directed more appropriately to an ED.
- PPCPs can improve the outcome of childhood emergencies by advocating CPR and first aid training of parents and caregivers and by educating them about how to prevent injuries, recognize an emergency, and respond appropriately in terms of first aid, CPR, accessing the private office or EMS, and choosing the appropriate facility: office, urgent care center, local ED, or pediatric specialty care center.
- Anticipatory guidance regarding emergencies should include when and how to access EMS (9-1-1 or the local emergency access number), posting the national Poison Control Center number (800-222-1222), a means of obtaining after-hours advice, the need for consent for treatment of minors, any constraints to emergency care from health plan requirements for referral, and what facilities to access in a true emergency.

# Special Needs Children

- PPCPs who care for children with special health care needs can help improve emergency care for these children by providing a brief but comprehensive summary of important information for hospital and prehospital providers.
- Nationally recognized forms, such as the emergency information form, and medical-alert jewelry can provide needed information during an emergency.
- Inquiring about the existence of a local Emergency Medical Services for Children–sponsored "child alert" program can further enhance the EMS response and care by strengthening the link with responding EMS personnel and decreasing the anxiety levels of parents, EMS personnel, and hospital staff.

# PREPARING THE OFFICE AND OFFICE PERSONNEL

- The first person to assess patients-recognize emergencies .(labored breathing, cyanosis, audible stridor or wheezing, grunting or flaring, seizures, depressed mental status, or uncontrolled bleeding).
- Front-desk personnel or the office nurse might periodically check the waiting area, especially if the waiting time for an acute care visit is prolonged or the waiting area is not under direct visual supervision.
- A clear response plan, including a plan for those times when the office is open but not fully staffed, is very helpful at the time of an emergency.
- Each member of the office staff can have a specific role in the overall management plan, including designation of the individual who will access the emergency response system. Personnel who fulfill this role should receive training specific to accessing EMS, and they should be knowledgeable about the capabilities and level of response provided by the local EMS agency.

# Roles of Staff

- Office staff will need to provide information to the EMS dispatcher, including office address and location of the office within the building; the child's age, condition, and vital signs; the transport destination; and need for an ALS unit if available.
- The PPCP can preassign roles for the "resuscitation team," and the team can then practice these roles by participating in office mock codes or simulated exercises on a regular basis.
- Tasks of the office team during an emergency include assisting and performing resuscitative measures, such as chest compressions, and recording or documenting the events of the resuscitation process and drawing up and administering medications and fluids.

# Office Emergency Equipment and Supplies (essential)

- Airway management
  - Oxygen-delivery system
- Bag-valve-mask (450 and 1000 mL)
  - Clear oxygen masks, breather and nonrebreather, with reservoirs (infant, child, adult)
  - Suction device, tonsil tip, bulb syringe
  - Nebulizer (or metered-dose inhaler with spacer/mask)
  - Oropharyngeal airways (sizes 00–5)
  - Pulse oximeter
- Color-coded tape or preprinted drug doses
- Cardiac arrest board/backboard
- Sphygmomanometer (infant, child, adult, thigh cuffs)
- Splints, sterile dressings

# Strongly Suggested Equipment

- Nasopharyngeal airways (sizes 12–30F)
- Magill forceps (pediatric, adult)
- Suction catheters (sizes 5–16F) and Yankauer suction tip
- Nasogastric tubes (sizes 6–14F)
- Laryngoscope handle (pediatric, adult) with extra batteries, bulbs
- Laryngoscope blades (0–2 straight and 2–3 curved)
- Endotracheal tubes (uncuffed 2.5–5.5; cuffed 6.0–8.0)
- Stylets (pediatric, adult)
- Esophageal intubation detector or end-tidal carbon dioxide detector
- Vascular access and fluid management
- Butterfly needles (19–25 gauge)
- Catheter-over-needle device (14–24 gauge)
- Arm boards, tape, tourniquet
- Intraosseous needles (16 and 18 gauge)
- Intravenous tubing, microdrip
- Automated external defibrillator with pediatric capabilities
- Spot glucose test
- Stiff neck collars (small/large)
- Heating source (overhead warmer/infrared lamp)

# Drugs

- Drugs (essential)
  - Oxygen
  - Albuterol for inhalation
  - Epinephrine (1:1000)
- Drugs (Strongly suggested)
  - Activated charcoal
  - Antibiotics
  - Anticonvulsant agents (diazepam, lorazepam)
  - Corticosteroids (parenteral/oral)
  - Dextrose (25%)
  - Diphenhydramine (parenteral, 50 mg/mL)
  - Epinephrine (1:10 000)
  - Atropine sulfate (0.1 mg/mL)
  - Naloxone (0.4 mg/mL)
  - Sodium bicarbonate (4.2%)
  - Fluids
    - Normal saline solution or lactated Ringer's solution (500-mL bags)S 5% Dextrose, 0.45 normal saline (500-mL bags)