Chapter 17

General Approach to the Pediatric Patient

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**KEY POINTS**

Each stage of childhood development brings about unique changes in anatomic, physiologic, and developmental features that affect assessment and management.

Although growth and development occur simultaneously, they are discrete and separate processes. *Growth* refers to an increase in the number of cells and results in an increase in physical size. *Development* is the gradual and successive increase in abilities or skills that is predominantly age-specific and reflects neurologic, emotional, and social maturaiton.

Parents or caregivers must be considered during every interaction with a child, especially if the child is seriously injured or ill. A child's anxiety and fear often reflect what he or she feels or sees in the parent(s)/caregiver(s).

Family presence during invasive procedures and resuscitation can be a positive experience for some parents/caregivers, especially those of children with chronic illnesses.

**General Approach**

Children account for about 30% of all ED visits; of these, 80% are initially evaluated in a general rather than a pediatric ED. The environment should be child friendly and child safe.

The following suggestions constitute a general approach to a child in the ED:

- Allow the parent or caregiver to stay with the child whenever possible.
- Ask what name to use for the child, and then address the child by name.
- Talk with the family using nonmedical terminology, especially when discussing planned interventions, findings, and treatments. Use language that children will comprehend.
- Always provide privacy no matter how young the child.
- Observe the patient's level of consciousness, activity level, interaction with the environment and caregiver, position of comfort, skin color, respiratory rates and efforts, and level of discomfort before touching him or her. Compare assessment findings with the parents' or caregivers' description of the child's normal behaviors, such as eating and sleeping habits, activity level, and level of consciousness.
- Be honest with the child and parent or caregiver. Parents or caregivers require reassurance about and explanations of the situation and the anticipated plan of treatment.
- Acknowledge and compliment good behavior, and encourage and praise the child. Provide rewards such as stickers or books.
- Allow the child to make simple age-appropriate choices and to participate in the treatment plan. For example, ask the child which arm to use for measuring blood pressure.
- Encourage play during the examination and any procedures. Use diversion and distraction techniques: Encourage the child to blow bubbles and blow the hurt away. Ask the child to sing a
favorite song, and sing along or have the parents or caregivers do so. Have the child picture a favorite place and describe it in detail with all five senses. Give the child permission to voice his or her feelings. Tell the child it is okay to cry. Sympathy is essential.

- Assess for pain using age-appropriate assessment tools. Elicit from the parents or caregivers the child’s typical response to pain.
- Be cautious about what you say in the presence of an apparently unconscious child.

The Family

The parents and other significant caregivers play a fundamental role in the child’s health care experience. The child is not the only person who needs attention. Communicating effectively with the parents or caregivers is critical to obtain an accurate history and consent for treatment. When the child suffers from pain because of illness or injury, the parents or caregivers experience almost equal anxiety and emotional stress. The parent’s or caregiver’s reaction to the child’s condition will directly affect how the child behaves.

Innate parental or caregiver instincts may evoke powerful emotional reactions. Such reactions are affected by guilt, fear, anxiety, disbelief, shock, anger, and loss of control. Abandoning a child to a stranger’s care, not understanding what will occur next, and worrying about a child’s condition leave parents or caregivers feeling defenseless. The fear of the unknown, fear of separation, fear of the possibility of significant morbidity or death, and fear of a strange environment may add stress to the parents’ or caregivers’ attitudes about the illness or injury of the child. A parent’s or caregiver’s own anxiety and response to the event may negatively influence his or her ability to console the child, to understand information communicated by the healthcare providers, to participate in decision-making for the child’s care, and to recall information given at discharge.

Parents or caregivers in emotional shock from a child’s acute illness or injury react differently. They may be very quiet, uncommunicative, and withdrawn, and may be unaware of the presence of others. They may appear to ignore and may not answer questions. Alternatively, some parents or caregivers become very demanding, offensive, or rude. Such people, like parents or caregivers who react in other ways, need confident, competent care providers who are able to enlist them in the medical process.

■ FAMILY PRESENCE

Evidence now suggests that presence of the child’s family during invasive procedures and resuscitation can be positive, especially in children with chronic illnesses. Although many family members and health care providers support the concept of family presence, parents or caregivers frequently are not given the option to remain with the child during invasive procedures. Many providers are concerned that family presence will impede caring for the child, that it will be distracting to the members of the team providing care, and that it will increase stress among the team. Contrary to this belief, studies show that family members do not interfere with health care providers and that the family benefits in a variety of ways from the experience. There is also evidence that children feel less stress when parents or caregivers are allowed to remain during procedures. In addition, when institutions have incorporated family presence into their practice, staff members have remained supportive. Family members who were present for procedures reported that they would do so again and that their grieving behavior was positively affected by the experience.

Before a family member is offered the choice to be present during an invasive procedure, a health care provider must assess whether the family can cope with what they will experience during the events. A family member who appears out of control or too emotional may be distracting and disruptive to the health care providers during the procedure. In this case, it may not be advisable to offer the opportunity for family presence. A designated member of the staff who functions to support the family and serve as a patient and caregiver advocate should stay with the family whether or not they decide or are allowed to be present with the child.

The choice to remain present during invasive or resuscitation procedures must be made by the parent or caregiver. If the parent or caregiver prefers not to stay with the child, ED personnel must respect that decision and continue to provide appropriate support and explanations. If the parent or caregiver chooses to stay with the child, the health care team must ensure that the he or she is given a clear explanation of the procedure and expected responses.

Before escorting family members into the room of a child who is undergoing a procedure or resuscitation, the health care provider supporting them must prepare them for what they will see. The family should be instructed about where they should stand while in the room, and if possible, they should have the opportunity to touch the child. The health care provider supporting the family should offer an ongoing account of activities in a gentle, calm, and directive voice. Should the resuscitation efforts or procedure not result in positive changes in the child’s condition, the health care provider supporting the family must remember that his or her role is to support family presence and to avoid any derogatory comments.

Growth and Development

Although growth and development occur simultaneously, they are discrete and separate processes. Growth
<table>
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<tr>
<th>Age</th>
<th>Milestones</th>
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| Newborn | Prone: Lies in flexed attitude, turns head from side to side, head lags on ventral suspension.  
Supine: Generally lies flexed with mildly increased muscle tone.  
Visual: Fixates to bright lights and close objects in the line of vision, “doll’s-eye” movement of eyes on turning of the body.  
Refluxes: Moro, stepping and placing, grasping, rooting, startle, and Babinski.  
1 month | Prone: Legs are more extended; child holds chin up, turns head, head is lifted momentarily to plane of body on ventral suspension.  
Supine: Tonic neck posture predominates; is supple and relaxed, head lags on lifting to sitting position, has tight grasp.  
Visual: Follows a moving object or person, watches a person.  
Social: Body movements in cadence with voice, smiles responsive, becomes alert in response to voice.  
4 months | Prone: Lifts head and chest in vertical axis with legs extended, rolls front to back.  
Supine: Symmetrical posture predominates, hands in midline, reaches and grasps objects and brings them to mouth.  
Sitting: No head lag on pull to sitting position, head steady, enjoys sitting with full trunk support, tracks objects through a 180-degree horizontal arc.  
Standing: When held erect, pushes with feet.  
Adaptive: When held erect, pushes with feet.  
Refluxes: Lacks Moro reflex  
Language: Coos, says “aah.”  
Social: Laughs out loud, may show displeasure if social contact is broken, is excited at sight of food, waves at toys.  
6 months | Prone: Rolls over, may pivot.  
Supine: Lifts head, rolls over, makes squirming motions.  
Sitting: Sits unsupported but falls on hands, and back is rounded.  
Standing: May support most of weight, bounces actively.  
Adaptive: Resists the pull of a toy, reaches out for and grabs large objects, transfers object from hand to hand, grasps using radial palm, rakes at a pellet.  
Motor: Helps hold the bottle during feeding.  
Language: Babbles, giggles, or laughs when tickled.  
Social: Responds more to emotions, enjoys looking at a mirror, responds to changes in emotional content, turns to a voice, clicks tongue to gain notice.  
9 months | Sitting: Sits up alone with no support.  
Standing: Pulls to standing position.  
Adaptive: Grasps objects with thumb and forefinger, pokes at things with forefinger, picks up a pellet with assisted pincher movement, uncovered a hidden toy, attempts to retrieve a dropped object, replace object by other person.  
Motor: Crawls or creeps, walks holding onto furniture.  
Language: Makes repetitive sounds, such as “mama” and “dada”; imitates speech.  
Social: Plays pat-a-cake or peek-a-boo, waves bye-bye, tries to find hidden objects, responds to name, begins to respond to “no” and to one-step commands.  
1 year | Motor: Walks with one hand held, walks holding onto furniture, takes several steps.  
Adaptive: Picks up a pellet with unassisted pincher movement of forefinger and thumb, releases a held object to other person on request or gesture, points to a desired objects, tries to build a tower of 2 cubes.  
Motor: Drinks from a cup with help.  
Language: Has 3 simple words, understands approximately 10 words.  
Social: Plays simple games, makes postural adjustment to dressing, follows simple commands.  
2 years | Motor: Walks up and down stairs with one hand held, jumps and runs well, stands on either foot alone for 1 second, climbs on furniture, kicks and throws a ball.  
Adaptive: Handles spoon well, is able to turn a doorknob, makes circular scribbling, imitates a horizontal stroke, folds paper once imitatively, can build a tower of 6 to 7 cubes, points to named objects or pictures.  
Language: Spans 3 words together, uses pronouns.  
Social: Listens to stories with pictures, turns pages of book, observes pictures, helps to undress self, often tells immediate experiences, verbalizes toilet needs.  
3 years | Motor: Goes up stairs alternating feet, rides a tricycle, stands momentarily on one foot.  
Adaptive: Can construct a block tower of more than 9 cubes, makes vertical and horizontal strokes on a paper but does not join them to make a cross, copies a circle, holds crayon with fingers.  
Language: Composes sentences of 3 to 4 words, has a vocabulary of 900 words.  
Social: Knows own age and sex, counts 3 objects, knows first and last names, plays simple games, helps in dressing self, washes hands.  
4 years | Motor: Jumps on one foot, throws ball overhead, uses scissors to cut out pictures, climbs well, runs and turns without losing balance, stands on one leg for at least 10 seconds, catches ball bounced to him/her.  
Adaptive: Copies cross and square, draws people with 2 to 4 parts besides the head, knows the days of the week.  
Language: Counts 4 pennies, tells a story, learns and sings simple songs, has a vocabulary of more than 1500 words, easily composes sentences of 4 to 5 words, can use the past tense, knows the days of the week, can ask up to 500 questions a day.  
Social: Plays with several children with beginning of social interaction and role-playing, goes to toilet alone.  
5 years | Motor: Skips smoothly, can catch a ball.  
Adaptive: Draws a triangle from copy, names heavier of 2 weights, knows right and left hand, draws person with at least 8 details.  
Language: Names 4 colors, repeats sentences of 10 syllables, has vocabulary of more 2100 words, counts 10 pennies, prints first name, tells age.  
Social: Dresses and undresses, asks questions about meanings of words, engages in domestic role-playing.
refers to an increase in the number of cells and leads to an increase in physical size. Development is the gradual and successive increase in abilities or skills performance along a predetermined path, often referred to as developmental milestones or tasks (Table 17-1). Development is predominantly age specific and reflects neurologic, emotional, and social maturation. Although there is cross-cultural similarity in the sequence and timing of developmental milestones, cultures exert an all-pervasive influence on developing children.

REFERENCES

5. MacLean SL, Guzzetta CE, White C, et al: Family presence during cardiopulmonary resuscitation and invasive proce-