

**Chapter 10**  
**Death of an Infant or Child**

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- Objectives**
- Define Sudden Infant Death Syndrome (SIDS).
  - Discuss the typical assessment findings associated with SIDS.
  - Define Apparent Life-Threatening Event (ALTE).
  - Identify common grief reactions demonstrated by parents immediately after the death of a child.

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**Sudden Infant Death Syndrome**

- Sudden infant death syndrome (SIDS) is “the sudden and unexpected death of an infant that remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history.”

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### SIDS—Etiology

- It has been suggested that that SIDS is the final common pathway of three coinciding factors:
  1. An infant must first have an underlying vulnerability
  2. The infant is then stressed by an outside source (such as sleeping in a prone position)
  3. The stress must occur during a critical developmental period, as in the first year of life

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### SIDS—Etiology

- Current SIDS research topics
  - Defects in normal arousal mechanisms
  - Gene mutations affecting autonomic nervous system development
  - Prenatal and postnatal exposure to cigarette smoke
  - Effects of nicotine on the developing brain
  - Ion channel disorders, such as those that cause QT interval prolongation

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### SIDS—Epidemiology and Demographics

- Third leading cause of infant mortality in the U.S.
- The majority of SIDS deaths occur during the first 6 months of life
  - Most between the ages of 2 and 4 months
- Occurs more often in infant boys than in girls

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### SIDS—Epidemiology and Demographics

- SIDS rate has declined by 42% since 1992
  - Recommendation made in 1992 to have infants sleep on their backs and sides rather than their stomachs

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### Maternal Risk Factors for SIDS

- Smoking during pregnancy
- Drug use (cocaine, opiates)
- Alcohol use
- Late or no prenatal care
- Low socioeconomic status
- Single parent status
- Nutritional deficiency
- Young age (less than 20 years)
- Shorter interpregnancy interval

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### Infant Risk Factors for SIDS

- Male gender
- Prematurity
- Native American or African American ancestry
- Low Apgar scores
- Overheating
- Prenatal and postnatal smoking exposure
- Prone or side sleep position
- Soft sleeping surface, soft bedding
- Recent febrile illness
- Infant/caregiver bed sharing

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### SIDS—Autopsy Findings

- Multiple petechiae (most common finding) are typically present on the surfaces of the lungs, epicardium, and thymus
- Lung congestion and vascular engorgement with or without pulmonary edema may be evident on microscopic examination

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### SIDS—Autopsy Findings

- Histologic evidence of a respiratory infection involving the larynx and trachea is present in some SIDS cases

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### Apparent Life-Threatening Event

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## Apparent Life-Threatening Event

- Definition

➤ "An episode that is frightening to the observer and that is characterized by some combination of apnea (central or occasionally obstructive), color change (usually cyanotic or pallid but occasionally erythematous or plethoric), marked change in muscle tone (usually marked limpness), choking, or gagging"

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## Apparent Life-Threatening Event

- Definition

➤ In clinical practice, the term ALTE has been restricted to events that fulfill the preceding criteria, but also involve vigorous stimulation or resuscitation

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## Interventions for SIDS

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### Primary Survey

- Assess the ABCs and determine the need for initiation/continuation of CPR
  - Begin resuscitation if your assessment does not clearly indicate death
  - Rigor mortis and dependent lividity are obvious signs of death

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### If resuscitation is provided ...

- Calmly explain what you are doing
  - Explain roles of each member of resuscitation team
  - Provide frequent updates to caregivers, even if there is no change
- Permit caregivers to remain within sight of the infant

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### If resuscitation is provided ...

- If possible:
  - Allow a caregiver to accompany the infant during transport to the emergency department
  - Allow caregivers to briefly touch the infant

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### SIDS Death

- If obvious death or unsuccessful resuscitation:
  - Follow local protocols regarding resuscitation and transport
    - Obvious death, field termination, death in the field, or similar protocol

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### SIDS Death

- If the body must remain at the scene:
  - Inform the caregivers in a sensitive manner and explain why
  - Explain that the infant is dead
    - Do not use euphemisms such as "expired" or "passed away"

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### SIDS Death

- If the body must remain at the scene:
  - Initiate grief support for the family
  - Remain with the family until:
    - Law enforcement personnel assume responsibility for the body
    - Grief support personnel are on the scene to assist the family

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## History and Documentation

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## History and Documentation

- A focused history must be obtained
- Incident must be carefully documented
- Begin by asking the infant's name
  - After obtaining this information, use the baby's name when asking questions
  - Do not refer to the infant as "the baby," "it," or use other nonspecific words

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## History and Documentation

- What is the baby's name?
- What happened?
- What is baby's\* age?
- What does baby\* weigh?
- What time was baby\* put to bed?
- When did baby\* fall asleep?
- Who last saw baby\* alive?
- Who found baby\*\*? What did that person do?
- What position was baby\* in when he/she was found?
- Was CPR attempted?

*\*Substitute the infant's name for "baby."*

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### History and Documentation

- Did baby\* share a bed with anyone else?
- What was the general health of baby\*?
- Had baby\* been ill recently?
- Was baby\* taking any medications?

*\*Substitute the infant's name for "baby."*

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### History and Documentation

- Observations of the scene
  - Position and location of the infant on arrival
  - General appearance of the home and other children
  - Appearance of the room where the death occurred
  - Condition and characteristics of crib or sleep area

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### History and Documentation

- Observations of the scene
  - Bedding (e.g., pillows, sheets, blankets, etc.)
  - Any objects in the crib (e.g., toys or bottles)
  - Any unusual or dangerous items that could cause choking or suffocation
  - Medications

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## History and Documentation

- Observations of the scene
  - Electrical and mechanical devices in use in the room
    - Vaporizers
    - Space heaters
    - Fans
    - Infant electronic monitors
      - Apnea monitor or heart rate monitor
  - Behavior of those present at the scene

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## Death of an Infant or Child

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## Relaying Bad News

- Speak slowly in a quiet, calm voice
  - Pause every few seconds and ask the caregivers if they understand what is being said

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### Relaying Bad News

- Preface the bad news by saying, "This is hard to tell you, but..."
  - Use the infant's first name
  - Using simple terms (not medical jargon), explain that the infant is dead
    - Use the words "death," "dying," or "dead"
    - Do not use euphemisms
      - "Passed on"
      - "No longer with us"
      - "Has gone to a better place"

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### Relaying Bad News

- Assume nothing as to how the news is going to be received
  - Anger
  - Shock
  - Withdrawal
  - Disbelief
  - Extreme agitation
  - Guilt
  - Sorrow
  - No observable response
  - In some cases, the response may seem inappropriate

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### Relaying Bad News

- Allow time for the shock to be absorbed and as much time as necessary for questions and discussion
- An empathic response such as, "You have my (our) sincere sympathy" may be used to convey your feelings

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### Relaying Bad News

- Common questions
  - "Was I to blame?"
  - "Did my baby suffer?"
  - "Why did my baby die?"
  - "What causes SIDS?"
  - "What can I do to prevent another child from dying of SIDS?"
  - "Are there symptoms I should have known about that could have prevented the death?"
  - "What will happen next?"

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### Relaying Bad News

- Allow the family the opportunity to see and hold the infant
  - Prepare the family for what they will see
- Some caregivers may prefer not to view the body
  - If this is their preference, do not attempt to force them to do so

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### Help for the Healthcare Professional

- Reactions suggesting a need for assistance:
  - Persistent feelings of anger
  - Self-doubt
  - Sadness
  - Depression
  - Desire to withdraw from others
  - Identification with the infant's caregiver
  - Avoidance of the caregiver
  - Feelings of blame toward the caregiver

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### Help for the Healthcare Professional

- Place an infant supine for sleep
  - "Back to sleep" or "face up to wake up"
  - Side sleeping is not recommended

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### SIDS Prevention

- Place an infant supine for sleep
  - The infant should sleep in the same room as his or her parents, but in his or her own crib or bassinette

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### SIDS Prevention

- American Academy of Pediatrics recommends offering a pacifier at bedtime and naptime
  - Pacifier should be used when placing the infant down for sleep
    - Do not reinsert once it falls out
  - For breast-fed infants, delay introduction of the pacifier until breast-feeding is well established

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### SIDS Prevention

- Place an infant on a firm surface for sleep
- Avoid placing the infant on soft or padded sleep surfaces
  - Pillows
  - Sheepskins
  - Sofas
  - Soft mattresses
  - Waterbeds
  - Beanbag cushions
  - Quilts
  - Comforters

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### SIDS Prevention

- Avoid soft materials in the infant's sleep environment (over, under, or near the infant)
  - Pillows, comforters, quilts
  - Sheepskins
  - Stuffed toys
- Blankets, if used, should be tucked in around the crib mattress

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### SIDS Prevention

- Do not overheat the infant (keep the room temperature comfortable, do not overdress the infant, use a light blanket)
- Avoid exposure to cigarette smoke

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### SIDS Prevention

- Do not sleep with a baby on a sofa or armchair
- Parents who smoke, are obese or especially tired, or have taken medicines, drugs, or alcohol that impairs their responsiveness should not share a bed with their infant

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### SIDS Prevention

- Do not overbundle infant or dress the infant too warmly
- Avoid exposure to cigarette smoke
- Adults (other than parents) and children or other siblings should not share a bed with an infant

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### Questions?

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