

**EMERGENCY MEDICAL TECHNICIAN AND FIRST
RESPONDER GUIDELINES**

SIDS AND OTHER SUDDEN UNEXPECTED INFANT DEATHS

AS RECOMMENDED BY THE ARIZONA UNEXPLAINED INFANT DEATH COUNCIL, 2006

INTRODUCTION

Being called to a sudden unexpected death in infancy (SUDI) is one of the most difficult experiences that first responders may encounter. They are usually the first professionals to arrive at the scene and, at the same time as making difficult judgments about resuscitation, have to deal with the emotional devastation of parents and caregivers.

This document was developed by the Arizona Unexplained Infant Death Council to provide information on sudden, unexplained infant deaths and guidelines for response by emergency medical technicians, firefighters, and other first responders.

BACKGROUND

In 1992, the legislature established the Sudden Infant Death Council to promote the reduction of sudden infant death syndrome (SIDS) and promote the proper response and investigation of reports of sudden infant death. In 2002, ARS §36-2291 renamed the Unexplained Infant Death Council, expanding the scope of the council to include all unexplained infant deaths. ARS§ 36-104 requires that the Arizona Department of Health Services (ADHS) certify training on the nature of sudden infant deaths for use by professional firefighters, paramedics, emergency medical technicians, and law enforcement officers as part of their basic and continuing education requirements. The Unexplained Infant Death Council is charged with assisting ADHS in the development of protocols for investigations of sudden, unexplained infant deaths.

Additionally, ARS§ 9-991 mandates that professional firefighters, as defined in section 9-901, shall complete training certified by ADHS on the nature of sudden infant death syndrome as part of the basic training to become a firefighter.

Statute also mandates that county medical examiners, or any licensed physician performing the duties of such, perform an autopsy in cases of sudden and unexplainable infant death in accordance with protocols adopted by ADHS.

INFANT DEATH IN ARIZONA: THE FACTS

In 2005, 667 infants died in Arizona. Of those, 599 infants died of natural causes, including prematurity, congenital anomalies, and other medical conditions. In 2005, SIDS was identified as the cause of death in 37 infant death cases in Arizona.

With the exception of 1995, there have been between 60 and 80 unexpected infant deaths every year for the last decade in Arizona. Unexpected deaths most frequently occur in their family home or on occasion the child care setting. Unexpected deaths include SIDS, suffocation deaths due to overlaying or unsafe bedding, previously undiagnosed medical conditions, and deaths in which the cause could not be determined. While SIDS has declined from a high of 78 in 1998 to a low of 31 in 2004, the number of suffocation and infant deaths in which the cause could not be determined has increased from a low of 21 in 1996 to a high of 51 in 2005. Arizona Child Fatality Review Teams determined that in 2005, 50 children died as a result of maltreatment in Arizona.

Sudden Infant Death Syndrome (SIDS) Facts:

Sudden Infant Death Syndrome (SIDS) is the sudden death of an infant under one year of age which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history (Willinger et al., 1991).

SIDS is NOT:

- caused by vomiting or choking
- contagious
- caused by lack of love
- child abuse or neglect
- caused by co-sleeping
- caused by immunizations

SIDS cannot be predicted or prevented. Parents and caregivers can, however, reduce the risk of death. The American Academy of Pediatrics recommendations (PEDIATRICS Vol. 116 No. 5 November 2005, pp. 1245-1255) include:

- Infants should be placed on the back for sleep at night and at naptime.
- Infants should be placed in a crib that conforms to the safety standards of the Consumer Product Safety Commission.
- Infants should not be put to sleep on waterbeds, sofas, soft mattresses, or other soft surfaces.
- Avoid soft materials in the infant's sleeping environment.
- Overheating should be avoided. The infant should be lightly clothed for sleep, and the bedroom temperature should be kept comfortable for a lightly clothed adult. Over bundling should be avoided, and the infant should not feel hot to the touch.
- Bed sharing or co-sleeping may be hazardous. Infants should be placed in a separate but proximate sleeping environment.

Other Unexpected Infant Deaths:

- Not all sudden infant deaths are attributable to SIDS.
- Infants and young children can die suddenly from other illnesses or environmental conditions.
- Placement of an infant on an adult bed, a sofa, beanbag, waterbed, or surface other than a Consumer Product Safety Commission-approved crib increases the risk of infant death.
- Bed sharing, whether with an adult or another child, increases the risk of overlying and infant deaths due to suffocation.
- The cause of an infant's unexpected death cannot be determined until a full postmortem evaluation by a medical examiner.

What is typical of a natural infant death?

Infants who die from natural causes are often normal in appearance. The body may be cool and the extremities may be stiff depending on the time of death. The child's skin may be mottled due to lividity, and there may be a frothy, blood tinged discharge around the nose and mouth. Vomitus may also be present.

Typically, there are no external signs of injury or neglect, such as bruising, burns, welts, abrasions, or malnutrition. Should such injuries be noticed, document them and notify law enforcement officials so further investigation can be conducted to determine whether abuse occurred or not.

ROLE OF FIRST RESPONDERS/EMERGENCY MEDICAL TECHNICIANS

Objectives

The main objectives for first responders when called to deal with the sudden unexpected death of an infant are:

1. Assess whether there is any prospect of survival and initiate resuscitation.
2. Treat the family with compassion and sensitivity throughout.
3. Collect information that may help determine the cause of death.
4. Transport/arrange for transport of the baby to the nearest appropriate emergency department.

Resuscitation

- Resuscitation should always be attempted unless there is clear evidence that the baby has been dead for some time. Such evidence might include rigor mortis, purple discoloration of dependent surfaces (from pooling of venous blood), or a very low core temperature.
- It may be very difficult to feel a pulse in a sick baby, so the absence of peripheral pulses is not by itself a reliable indication of death. Similarly, a sick baby may have marked peripheral cyanosis and cold extremities.
- It is better for parents to know that resuscitation was attempted but failed, than to be left feeling that something that might have saved their baby was not done.
- Once resuscitation has been initiated, the baby should be transported at once to the nearest emergency department, with resuscitation continuing en route.
- Radio and telephonic communication should be professional and secure. Use of handset devices is preferred.

Investigation

Your observations and any information you obtain from individuals at the scene is valuable to the investigation of law enforcement and medical personnel. As a potential witness, it is important for you to make note of the following:

- Upon your arrival, make note of the location and position of the child. If still in the bed/crib, note the position, any bedding present, as well as any objects in the sleep area. Document which caregivers are present. Note anything which appears out of place or suspicious to you, including any attempts made by parents/caregivers to clean up or move items in your presence.
- Obtain a history from the parents/caregivers as to the events leading to the discovery of the child, when the child was last seen alive and by whom, location and position the child was discovered in and by whom, and any health issues the child experienced prior to being discovered deceased. Include any resuscitation attempts made by the

caregivers prior to your arrival. Police and pediatricians will need this information for their investigation before they obtain more detailed information from caregivers.

- Do not provide the parents/caregivers your medical opinion as to possible causes for the child's condition or injuries.
- Note any questions asked of you by the parents/caregivers. Document any conversations you may hear which appear suspicious.
- Document this information in writing as soon as possible. Using exact times and quotes, if possible, would be beneficial to the follow up investigation. This will also make it easier for you to recall the events, should you be required to testify as a witness at a later time. Share all information with the police and relevant health professionals.
- ARS§ 36-2293 requires that law enforcement officers complete an infant death investigation checklist during investigations of unexplained infant deaths and further requires law enforcement officers to complete the checklist prior to autopsy. (See the attached Arizona Infant Death Investigation Checklist.) The checklist is a valuable tool that includes information about the household members, the infant's medical history, and details about the scene where the deceased infant was discovered.

Transport

- Take the baby to the nearest appropriate emergency department.
- Inform the parents/caregivers where the baby is being taken and ensure that they have transportation to the hospital.
- The main reasons for taking the baby to the hospital rather than the mortuary are that at the hospital an immediate examination can be made by a pediatrician, early samples can be taken for laboratory tests, and parents can talk with a pediatrician and be put in touch with other support services.
- Forewarn the emergency department of your arrival, asking them to be ready to take over resuscitation if you have set it in progress.

Treatment of the Family

The parents or caregivers have just suffered one of the worst shocks that life can offer, and may exhibit a variety of reactions, such as overwhelming grief, anger, confusion, disbelief or guilt. Parents or other caregivers often cling to the hope that the first responders can save the infant, even though the infant may have obvious signs of death. The initial response of professionals (and you will probably be the first on the scene) will affect them profoundly, so be prepared to deal with any of these feelings with sympathy and sensitivity.

- If there is a crisis response team available, they should be dispatched to meet with the family or caregiver.
- Avoid any criticism of the family or caregiver, either direct or implied.
- Ask the baby's name and use it when talking about the baby (try to avoid referring to the baby as "it").
- Explain what you are doing at every stage.
- Never tell the family or caregiver that the cause of death is SIDS. Only after a full autopsy and postmortem evaluation by a medical examiner can this determination be made.

- If the family or caregiver has no telephone, offer to help in contacting a relative or friend who can give immediate support, such as looking after other children or making sure the premises are secure. The crisis response team should complete this step if present.

SUPPORT FOR EMERGENCY MEDICAL TECHNICIANS AND FIRST RESPONDERS

The death of an infant is very distressing for all those involved. It is not unusual to feel grief or guilt similar to those of the parents/caregivers. First responders often express regret and frustration at being unable to revive the baby. Opportunities for debriefing or counseling should be available for all responders to discuss the circumstances surrounding the death.

ARIZONA INFANT DEATH INVESTIGATION CHECKLIST

Scene Investigated by _____ Agency _____ Phone Number _____ County _____

A. General Information

1. Infant's name _____ Sex _____ Age _____ Date of birth _____
2. Date of death _____ Time of death _____ AM/PM Location _____
3. Father's name _____ Age _____ Occupation _____
4. Mother's name _____ Age _____ Occupation _____
5. Are there siblings? Yes, No If yes, list ages _____
6. Home address (if different from location of death) _____
7. Pediatrician (family physician) _____ Physician's Phone _____

B. Past History

1. Birth weight _____ lbs _____ oz Was infant premature? Yes, No If yes, number of weeks premature _____
2. Place of Birth (Hospital and City/State) _____
3. Any problems with pregnancy and delivery? Yes, No If yes, explain _____
4. During pregnancy, did anyone: Smoke? Who? _____ Use drugs? Who? _____ What? _____
5. Has infant ever required hospitalization or emergency care? Yes, No If yes, explain: When? _____ Where? _____, Why? _____
6. Anything unusual about sleeping habits or breathing? Yes, No Has infant turned blue or stopped breathing? Yes, No
Has infant had seizures or convulsions? Yes, No If yes, explain _____
7. Any other medical problems or concerns? Yes, No If yes, explain _____
8. Has infant been immunized? Yes, No If yes, are immunizations up to date? Yes, No, Unknown Date of last immunization _____
9. Have there been other child deaths in this family or relatives of the immediate family? Yes, No If yes, where? _____ Cause of death(s) _____ Age(s) at death _____

C. Recent History

1. Was the infant Breast-fed Bottle-fed Both? Last feeding _____ AM/PM What was last feeding? _____
2. Recent illness? Yes, No If yes, what? Appetite change, Cough, Diarrhea, Ear infection, Fever, Irritability/listlessness, Sniffles, Vomiting, Weakness/ "floppiness", Wheezing, Other _____
Were medications or home remedies given? Yes, No If yes, what _____ * Amount _____ Time _____ AM/PM
3. Was there recent exposure to chemicals? Yes, No If yes, what _____ When _____
4. Is anybody in the house sick? Yes, No If yes, who _____ Illness _____
5. Was there a history of a recent fall or injury? Yes, No If yes, explain _____
6. Was the infant in anyone else's care in the last 48 hours? Yes, No If so, whom? _____
7. Last date infant was seen by a medical provider _____ Where? _____ Reason for visit _____

D. Scene

1. Last seen alive _____ AM/PM Was infant behaving normally? Yes, No If no, describe: _____
2. Who discovered the infant? Name _____ Relationship _____ Time _____ AM/PM
3. Position infant was in when found? Abdomen, Back, Side Position when put to bed? Abdomen, Back, Side
What was the infant wearing? _____ How was the infant covered? _____
4. Were the nose and mouth obstructed? Yes, No If yes, with or by what? _____
5. Describe infant's sleeping environment Crib, Bed, Sofa, Other _____ Type of mattress Soft, Hard,
 Waterbed, Exposed plastic covering Were any of the following found in infant's bed? Pillow, Blankets, Cushions, Toys, Pets,
 Other _____ Temperature of room _____
6. Was the infant sleeping alone? Yes, No If no, with whom? Child, Adult, More than one person Estimated weight of
sleeper(s) _____ Drug or alcohol used? Yes, No If yes, what? _____
7. Was the infant Warm, Cool
8. Were attempts made to revive the infant? Yes, No If yes, by whom? _____ Time of attempt _____ AM/PM
Method of attempt CPR, Shaken, Other _____
9. Does anyone in the immediate household or daycare facility smoke? Yes, No If yes, identify relationship _____

Comments: (Use this space to elaborate on questions above or to note anything unusual)

*Use "Comments" section if more space is needed. Collect all medication/home remedy containers for submission to Medical Examiner.

White = First Responder

Canary = Medical Examiner

Pink = ADHS

(2002) ARIZONA INFANT DEATH SCENE INVESTIGATION CHECKLIST INSTRUCTIONS

Scene Investigated by- Name of the person responsible for the death scene investigation.

Agency- Name of the agency that the person works for.

Phone Number- Telephone number where the scene investigator can be reached.

County- County of the infant death investigation.

A. GENERAL INFORMATION

1. Infant's Name- Include the infant's first, middle and last names. Also known as (a.k.a.) can be added if this is appropriate. Sex- Indicate whether the infant is male or female. Age- Age of the infant in months or days at the time of death. Date of Birth- Month, date and year of the infant's birth.
2. Date of Death- Actual date of the infant's death. Time of Death- Actual time infant died. Location- Identify where the infant's death occurred, (i.e. home, day care, relative's home, etc.) Give the address, including city.
3. Father's Name- Indicate the first, middle and last names of the infant's father. Age- Age of the father in years. Occupation- Usual occupation of the father.
4. Mother's Name- Indicate the first, middle and last names of the infant's mother. Age- Age of the mother in years. Occupation- Usual occupation of the mother.
5. Siblings- If yes, indicate ages.
6. Home Address - If different from the location of death, indicate the home address, including city and state.
7. Pediatrician (Family Physician)- Name of the physician who was providing the infant's ongoing health care. Phone- Indicate the physician's phone number.

B. PAST HISTORY

1. Birth Weight- Weight of the infant at the time of birth in pounds and ounces. Prematurity- If premature, indicate# of weeks premature.
2. Place of Birth- Indicate the hospital and City/ State where the infant was born.
3. Difficulty with pregnancy/delivery- Answer yes or no. If yes, explain.
4. Smoking during pregnancy- Indicate if any household member smoked tobacco during this pregnancy. If yes, identify relationship to infant. Drugs during pregnancy- Indicate if any household member abused drugs during this pregnancy. If yes, identify relationship to infant and type of drug.
5. Hospitalization/ Emergency Care- Indicate if the infant has been admitted to the hospital or seen in an emergency room. Explain the reasons for hospital admission or emergency room visit.
6. Indicate if infant had any unusual sleeping habits, if infant ever turned blue or stopped breathing, and if infant had seizures or convulsion. If yes, explain.
7. Other medical conditions noted- Answer yes or no. If yes, explain.
8. Immunization- Indicate if the infant received any immunizations. Indicate if immunizations are up to date and the date of last immunization.
9. History of other child deaths in the family. If yes, identify where, cause of death, and age of child at death.

C. RECENT HISTORY

1. Type of feeding- What type of feeding did the infant regularly receive? Check appropriate box. Last feeding- Indicate the time of the last feeding. What- Indicate what the infant consumed.
2. Recent Illness- Answer yes or no. If yes, check the box corresponding to the condition. Other-Describe other conditions not listed. Medicine- Indicate name of medication or home remedy. Amount- Amount infant was given. Time- Indicate the time medicine was given to infant. Collect all medication or home remedy containers for submission to Medical Examiner.
3. Chemicals- Indicate if the infant was exposed to any chemicals or noxious agents. What- Describe chemical. When- Give date of exposure.
4. Sickness in the household- Indicate if family members or close contacts have exposed the infant to any recent illnesses. Who – Indicate relationship. Illness– Type of illness.
5. Injury or fall- Indicate if the infant had a recent accident. If yes, explain.
6. Recent caregivers- Answer yes or no. If yes, indicate relationship with infant.
7. Last date infant was seen by medical provider– Indicate date. Where- Indicate medical center or physician name. Reason- Indicate why infant was seen.

D. SCENE - (Ask person who discovered the infant)

1. Last seen alive- Indicate the time and circle AM or PM. Behavior - Indicate if infant's behavior was normal. If no, describe infant's behavior.
2. Who discovered the infant- Name and relationship of the individual and time this occurred.
3. Position when found- Indicate infant's position when found. (Check the appropriate box) Position when put to bed-Indicate the position of the infant when put to sleep. (Check the appropriate box) Clothing-Describe what was infant wearing. Covering- Describe how was infant covered.
4. Nose or mouth obstruction- Answer yes or no. If yes, indicate what was causing the obstruction.
5. Infant's sleeping environment- Describe the infants sleeping environment. Other category may include infant carrier, car seat, floor, sofa, swing, etc. Items in bed with infant- Note any items in the bed or immediate sleeping environment. Room Temperature- Indicate if room was cold, hot or normal.
6. Sleeping arrangement- Indicate if infant was sleeping alone. If no, identify co-sleepers. Weight – estimate weight of co-sleepers(s). Drug or alcohol usage- Indicate if co-sleepers used drugs or alcohol. Answer yes or no. If yes, explain.
7. Infant's temperature- Check appropriate box.
8. Attempts to revive infant- Check appropriate box. If yes, note by whom. Time of attempt- Indicate time. Method of attempts- Check appropriate box. Other– Describe other types of attempts if not listed.
9. Household or day care smokers- Answer yes or no. If yes, indicate the relationship to infant.

COMMENTS

Use this space to elaborate on questions above or anything unusual. List the medication or home remedies identified in Section C #2. Attach additional sheets when necessary.

ROUTING INSTRUCTIONS – Send original to ADHS, address listed below. Send yellow copy to County Medical Examiner's Office. First responder keeps the pink copy. Please call (602) 542-1875 if any additional information is needed.

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