

Recommendations and Reports

Guidelines for Death Scene Investigation of Sudden, Unexplained Infant Deaths:

Recommendations of the Interagency Panel on Sudden Infant Death Syndrome

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Public Health Service

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Guidelines for Death Scene Investigation of Sudden, Unexplained Infant Deaths: Recommendations of the Interagency Panel on Sudden Infant Death Syndrome

Summary

Because no uniform procedure has been developed for collecting and evaluating information on sudden, unexplained infant deaths (SUIDs) in the United States, the U.S. Senate and U.S. House of Representatives recommended in 1992 that the U.S Department of Health and Human Services Interagency Panel on Sudden Infant Death Syndrome (SIDS) establish a standard scene investigation protocol for SUIDs. Two members of the panel, the Division of Reproductive Health of CDC and the National Institute for Child Health and Human Development of the National Institutes of Health, convened a workshop in July 1993 to gather information and ideas to use in developing such a protocol. Workshop participants, who included consultants having expertise in SIDS and representatives of public and private organizations concerned with SIDS, suggested that the Interagency Panel on SIDS develop both a short-form protocol and a longer, comprehensive protocol. The participants also recommended data items to include in the short-form protocol. This report includes the short form, which was developed to standardize the investigation of SUID scenes; ensure that information pertinent to determining the cause, manner, and circumstances of an infant death is considered in each investigation; and assist researchers in accurately determining the cause of and risk factors for SIDS. It can be used by medical examiners, coroners, death investigators, and police officers. Instructions for using the protocol are also included.

INTRODUCTION

Sudden, unexplained infant deaths (SUIDs) are those for which no cause of death was obvious when the infant died. Sudden infant death syndrome (SIDS) (also known as crib death) is the most frequently determined cause of SUIDs. SIDS is "the sudden death of an infant under 1 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" (1). SIDS should not be diagnosed if these criteria are not met.

Because these criteria are often not met and because practices for case investigation vary in the United States, efforts to determine the cause of and risk factors for SIDS have been hampered. The autopsy rate for SUIDs is about 90%; however, autopsy protocols vary by death investigation jurisdiction (which can consist of a county, district, or state) (2). The proportion of deaths ruled to be caused by SIDS and that include examination of the death scene is unknown, but it is probably very low because few jurisidictions have a written protocol for SUIDs scene investigation. For example, only four states (California, Minnesota, Missouri, and New Mexico) have

detailed, written protocols for SUIDs scene investigation (3–6). Scene investigation protocols also differ by jurisdiction, and practices for investigating SUIDs vary among medical examiners, coroners, and others who research SUIDs (2).

Because no uniform procedure has been developed for collecting and evaluating information on SUIDs in the United States, the U.S. Senate and U.S. House of Representatives recommended in 1992 that the U.S Department of Health and Human Services Interagency Panel on SIDS establish a standard scene investigation protocol for SUIDs (7). Two members of this panel, the Division of Reproductive Health of CDC and the National Institute for Child Health and Human Development of the National Institutes of Health, convened a workshop in July 1993 to gather information and develop ideas that could be used to establish such a protocol. One recommendation from the workshop participants was to develop both a short-form protocol and a more extensive protocol. This report includes the short-form protocol developed by the Interagency Panel on SIDS and instructions for using it.

SIDS

SIDS is listed on death certificates as the cause of death for 5,000–6,000 infants (age 0–364 days) each year in the United States. The mortality rate due to SIDS has declined gradually, from a high of 1.5 per 1,000 live births in 1980 to 1.2 per 1,000 live births in 1993 (7–10), but the reason for this decline is not known. For postneonates (age 28–364 days), SIDS is the leading cause of death (accounting for about 35% of postneonatal deaths) (7,8).

The distribution of age at death is the most unique epidemiologic feature of SIDS cases (11). The risk of SIDS peaks at 2–4 months of age; SIDS is uncommon during the first month of life and after the sixth month of life. About 90% of SIDS cases occur in children under 6 months of age. In the United States, the incidence of SIDS is greater during the winter months than the summer months (11,12).

Although the etiology and pathogenesis of SIDS are unknown, increased risk for SIDS is associated with many maternal characteristics, infant characteristics, and environmental factors (12). The most consistently reported and potentially modifiable risk factors are lack of breast-feeding (11,13), exposure to tobacco smoke in utero (12–15) or during infancy (13,15), and the infant sleeping prone (12,16–18). Other factors associated with SIDS include male sex, low maternal education, young maternal age, high parity, the mother being unmarried, and late or no prenatal care (12). Some researchers have suggested that SIDS has multiple etiologies and that predisposing biochemical, anatomic, or developmental abnormalities may increase the risk of SIDS for infants (1).

A standard protocol for SUIDs scene investigation offers several potential benefits (Exhibit 1). For example, it may assist researchers in accurately determining the cause of and risk factors for SIDS by reducing the likelihood of incorrect identification of SIDS and by enabling or facilitating the gathering of data on deaths correctly determined to be caused by SIDS. Any SUID that has not been thoroughly investigated should be classified as undetermined or unexplained. For about 15% of SUIDs, a thorough investigation will determine or identify a cause of death other than SIDS (19).

Exhibit 1. Reasons for a Standard Protocol for SUID Scene Investigations

- To generate a single, reasonable hypothesis for the cause, manner, and mechanism of death.
- To assist the pathologist, medical examiner, or coroner in ruling in or ruling out natural causes of death, child abuse or neglect, or injury.
- To identify public health threats, such as those related to consumer products or unsafe health practices.
- To contribute to the understanding of the cause of and risk factors for SIDS and other reasons for SUIDs and to develop preventive strategies.
- To use the opportunity to provide parents and caregivers information about grief counseling, support groups, and healthy infant-care practices.
- To provide information on SUIDs and SIDS to epidemiologists and agencies with an interest in the welfare of children.

WORKSHOP OBJECTIVES

The Interagency Panel on SIDS "Workshop on Guidelines for Scene Investigation of Sudden Unexplained Infant Deaths" was held in Rockville, Maryland, on July 12 and 13, 1993. Before the workshop, the participants (who represented federal agencies as well as public and private sector organizations) received information about SIDS, including a sample list of data items drawn from known written protocols on SUID scene investigations. During the workshop, participants discussed five topics:

- Desirable attributes of a standard protocol for SUID scene investigation;
- Data items of a standard protocol and which items are required or optional;
- Training to use the protocol;
- Procedures for data collection, reporting, and quality assurance; and
- Strategies for implementing the protocol.

For each of the five topics, three breakout groups were established. Participants clarified, combined, or eliminated ideas and ranked them in order of importance. After the workshop, the organizers combined and summarized the groups' information and ideas (20).

The principal goal developed by the workshop participants was to create both a standardized short-form protocol and a standardized expanded protocol for SUID scene investigation. Participants also specified five purposes of the short-form protocol (Exhibit 2). Using the ideas developed in each of the five topic areas, the Interagency Panel on SIDS developed a draft, short-form protocol compatible with death investigation report forms previously published by CDC's Medical Examiner and Coroner Information Sharing Program. The draft was reviewed by panel members and selected experts who attended the workshop; the resultant Sudden Unexplained

Exhibit 2. Purposes of the SUIDIRF

- To provide a generic, short-form, model protocol for investigating SUIDs.
- To assist state and local death investigation jurisdictions in developing a uniform, standardized, and systematic approach to investigating the scene of SUIDs.
- To ensure that all information pertinent to determining the cause, manner, and circumstances of an infant's death is considered in each investigation.
- To document the extent of investigation of a scene for SUIDs.
- To provide information useful to the pathologist during autopsy.

Infant Death Investigation Report Form (SUIDIRF) and accompanying instructions are available from CDC (Appendix).* Suggested modifications to the SUIDIRF will be used to develop the expanded protocol (the U.S. Model SUID Investigation Protocol), which will include specific guidelines for conducting investigations, asking the questions contained in the protocol, completing the protocol, establishing a computer data base for information gathered by using the protocol, and meeting the recommendations outlined in the workshop report (20).

USING THE SUIDIRF

All sudden and unexplained deaths among infants up to 1 year of age may be investigated by using the SUIDIRF. Local statutes define which infant deaths must be investigated, but these deaths usually include any in which the cause or circumstances of death are unknown (including deaths that are apparently due to a natural cause but cannot be confirmed by medical records, a personal physician, or a witness to the death) and any for which child abuse or neglect is suspected.

The SUIDIRF is not copyrighted and can be used with or without modification by any agency involved in investigating SUIDs. The protocol is intended for use primarily by medical examiners, coroners, death investigators, and police officers. Public health workers should ensure that local medical examiners and coroners are familiar with this report and the SUIDIRF.

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Comments on and suggestions for improving the usefulness of the SUIDIRF are welcome and may be directed as shown above.

^{*}Copies of a standard 8.5" x 11" SUIDIRF and an optional worksheet on which the questionnaire items are written out in full may be obtained from

Because the SUIDIRF is available in electronic form, it may be modified to meet the needs of individual investigators or agencies. For example, the data items may be rearranged, larger spaces for writing can be created, and data items may be added. To ensure uniform collection of core data items, items currently on the SUIDIRF should not be deleted or ignored. Further, these items may be important to other agencies or organizations examining trends. CDC is investigating options for computerized data entry and report generation in the SUIDIRF format.

CONCLUSION

The death scene investigation is an essential component of a thorough investigation of SUIDs. Information gathered during the scene investigation augments that obtained from an autopsy and review of the infant's clinical history. Information gathered during a SUID scene investigation can help the pathologist interpret postmortem findings and rule in or rule out accidental, environmental, and unnatural causes of deaths, including child abuse and neglect. Although the ultimate goal of a SUID scene investigation is to accurately assign a cause of death, no less important goals are identifying health threats posed by consumer products, identifying and understanding risk factors associated with SUIDs, and using the opportunity to refer families to grief counseling and support groups. These guidelines set the stage for standardized investigative procedures, data collection instruments, and training for SUID scene investigations, and they underscore the central role of medical examiners and coroners in public health surveillance and epidemiologic research of SUIDs (21).

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Appendix

Instructions for Completing the Sudden Unexplained Infant Death Investigation Report Form (SUIDIRF)

Use

SUIDIRF may be used to assess the death of any infant for whom the cause of death is not apparent before autopsy. Applicable parts of the form may also be used to collect data about the death of any infant for whom the cause of death is known. The medical examiner or coroner (ME/C) or the death investigator acting on behalf of the former should complete the SUIDIRF. Police officers who report to the ME/C may also find the form useful.

Completion

The form may be completed by using blue or black ink or a #2 soft-lead pencil to facilitate electronic scanning, photocopying, and fax transmission. To ensure legibility of the forms, writing on the blank side (back) of the forms is discouraged. One blank page is provided for notes. If necessary, additional sheets of blank paper may be attached.

Design

The SUIDIRF pages are designed for use on a clipboard. The pages may be separated to allow other persons to complete, scan, photocopy, or fax the pages. Each page is printed on one side for legibility.

Compatibility with Other Forms

CDC's Medical Examiner and Coroner Information Sharing Program has published two generic death investigation report forms (DIRFs)—one for the investigator conducting the initial phases of the investigation (IDIRF) and another for the person who certifies the death or "closes" the investigation (CDIRF) (1,2). The SUIDIRF is compatible with the DIRFs and has many data items in common. The CDIRF may be used in conjunction with the SUIDIRF. Although the generic IDIRF can be used for all death investigations irrespective of the age of the decedent, the SUIDIRF was designed specifically for infant deaths. On the SUIDIRF, the one-letter abbreviations in parentheses match the codes on the other DIRFs developed by CDC.

General Instructions

Use military time. Military time (midnight = 0000, noon = 1200) facilitates computer applications. Midnight (0000) corresponds to the same day as 0001 (one minute after midnight). The investigator may indicate a.m. and p.m. as long as the data entry personnel converts standard time to military time.

Glossary

Abbreviations used in the SUIDIRF

CPR	Cardiopulmonary resuscitation	NA	Not applicable
DC	Death certificate	NOK	Next of kin
DOA	Dead on arrival	OTC	Over-the-counter medication
DOB	Date of birth	Rx	Prescription medication
EMS	Emergency medical services	SIDS	Sudden infant death syndrome
IV	Intravenous	SS#	Social security number
ME/C	Medical examiner or coroner	Unk	Unknown

Terminology

EMS caller. The person who first called for emergency medical services, including an ambulance service, the police, or the fire department rescue team.

EMS responder. The person who first responded on behalf of the emergency medical service agency.

Father. The person serving as the father at the time of the incident. The relationship as natural (birth) father, stepfather, or other should be indicated.

Finder. The person who discovered the infant dead, unresponsive, or in distress.

First responder. The first person who attempted to render aid when the infant was found dead, unresponsive, or in distress.

Health-care provider. The physician, nurse, clinician, or other medical service provider who usually gave the infant medical care or well-baby checkups.

Last caregiver. The person who was last responsible for the care of the infant when he or she was discovered dead, unresponsive, or in distress (e.g., a baby-sitter, a child care custodian, or the mother).

Last witness. The person who last observed the infant alive or presumably alive in or near the area where he or she was discovered dead, unresponsive, or in distress.

Mother. The person serving as mother of the infant at the time of the incident. The relationship as natural (birth) mother, stepmother, or other should be indicated.

Placer. The person who last placed the infant in or near the area where he or she was found dead, unresponsive, or in distress.

Police. The law enforcement officer responsible for completing the police report on the death scene investigation.

Usual caregiver. The person responsible for providing the usual, ongoing care for the infant (e.g., changing diapers and feeding).

Month and day are sufficient for many fields. Birth date, death date, and the date the case was reported to the ME/C should each contain the month, day, and year, in that order, in numeric format (e.g., 01/05/97). For other events that occur in the same year as the report, indicating the month and day only is sufficient.

Indicate answers by an X. Multiple possible answers to an item are preceded by a line or followed by a box. Indicate the correct answer by writing an X on the appropriate line or in the appropriate box.

Use NA to indicate that a specific item is not applicable. If a given item is not applicable, write NA. If the respondent refuses to answer a question, write refused. Do not leave an item blank; the reviewer needs to know that an item has not been overlooked.

Correct errors by erasing or scratching through an incorrect response. If it is not possible to erase an answer, scratch out the incorrect response and indicate the correct one by using an X or by writing text as needed.

Page-by-Page Instructions

Many of the information items on SUIDIRF are self-explanatory. Instructions are provided here for items that require clarification.

Page 1

Use page 1 to document the date and time of critical events as well as to describe briefly circumstances of the infant's death. If the space on the blank page provided is not sufficient, additional pages for narrative descriptions may be attached.

Home address. The primary residence of the infant at the time of his or her death.

Age. The infant's age at death. Use MI for minutes (if less than 1 hour old), HR for hours (if less than 1 day old), DA for days (if less than 1 month old), and MO for months (until 23 months). Age at death can readily be calculated from the date of birth and date of death.

Race. The infant's race (based on the race of the birth mother). Use W for white, B for black, I for American Indian or Alaskan Native, A for Asian or Pacific Islander, and O for other.

Ethnicity. Whether the infant is of Hispanic descent. Additional information about the infant's national descent may be included here (e.g., Japan, China, Philippines, South Africa, Poland, or Germany).

Receipt by. The name of the ME/C or receptionist who first received notification of the infant's death.

NOK notified. The date and time the NOK not at the scene was notified of the infant's death, who was notified, and by whom. If the family was present at the scene and already knew of the infant's death at the time of its report, write NA in the date field.

Scene visit. The date and time the ME/C or the death investigator acting on behalf of the former visited the site where the injury or illness began or the death occurred. If ME/C staff visited the site, put an X by "ME/C staff" and name the

person who went to the scene. If another agency and not ME/C staff went to the site, put an X by "Other agency" and name the agency or person. If no scene visit took place, place an X by "Not done"; however, use this form to collect information from telephone or in-person interviews of witnesses and from emergency medical service logs and reports.

Scene address. The address of the place where the injury or death occurred. Indicate if the scene address is the same as the home address. If the scene was not visited, give the presumed address.

Condition of infant when found. The condition of the infant at the time of his or her discovery. A dead infant is believed to be dead even after resuscitation is attempted. An unresponsive infant is unconscious but shows signs of life (e.g., has a pulse and is breathing). An infant in distress is in obvious trouble but retains some degree of responsiveness.

Sequence of events before death. A summary of the reported sequence of events leading to the infant's death. For example, "Infant found dead in crib at 3:00 a.m. No significant history." Use supplementary pages to detail the reported circumstances and sequence of events.

Injury. The date, time, and address of a known or suspected injury relevant to the infant's death.

Discovery. The date, time, and address of where the infant was found dead, unresponsive, or in distress.

Arrival. The date and time the infant arrived at a hospital (if such is the case).

Transport by. The mode of transport (e.g., ambulance or private motor vehicle) and the agency or person who transported the infant to the hospital.

Actual death. The specific date, time, and place where the death is believed or known to have occurred, not necessarily when or where death was pronounced. Options include where the infant was found (on scene), en route to a hospital, in a hospital emergency room, during surgery, and after being admitted to a hospital as an inpatient.

Infant placed. The date, time, and type of place where the infant was last placed as well as who placed the infant before he or she was found dead, unresponsive, or in distress. For example, a place might be listed as crib in bedroom, adult bed, sofa in living room, mattress on floor, or infant seat in vehicle.

Known alive. The date, time, and type of place where the infant was last seen or otherwise known (or assumed) to be alive as well as who believed the infant was alive.

First response. The date, time, and type of response (e.g., mouth-to-mouth resuscitation, chest compression, slapping, or shaking) rendered by the first person who attempted to aid or revive the infant as well as who rendered such aid.

EMS called. The date and time EMS was called, who called EMS, and the site from where the EMS caller called.

EMS response. The date and time EMS personnel arrived at the scene as well as the name of the EMS agency.

Police response. The date and time police arrived at the scene as well as the name of the police department.

Place of fatal event. For each choice, only one condition can apply. Indicate the correct choice with an X on the appropriate line.

Describe type of place. A concise but thorough description of the place where the events leading to death occurred. Examples include infant's bedroom at home, privately owned day care center, child restraint in back seat of moving car, and infant seat in booth at a restaurant.

The name and relationship to the infant of all involved persons referenced on page 1 should be listed in the table at the top of page 4. On page 1 of the form, generic terms (e.g., mother, sister, uncle, or neighbor) can be used to indicate "By whom."

Page 2

Use page 2 to document the infant's usual health-care provider, prenatal and birth history, medical history (e.g., recent symptoms, signs, and behavioral changes), and medication history as well as resuscitation attempts (including medical techniques and procedures) used in attempts to revive the infant. The letter codes can be used to identify the fields on supplementary pages and to facilitate data coding.

Medical source. The sources used to obtain medical information about the infant and the mother.

Use the section on specific infant medical history to describe relevant medical history. If further description or clarification is needed, use the space provided on the right of the form, use the blank supplement page, or attach additional pages.

Problems during labor or delivery. Includes problems with the placenta, membranes, or cord; breech or malpresentation; cephalopelvic disproportion; prolonged labor; and fetal distress.

Maternal illness or complications during pregnancy. Includes eclampsia; incompetent cervix; maternal anemia; and pregnancy-induced hypertension, diabetes, cardiac conditions, and renal diseases.

Major birth defects. Includes central nervous system defects (e.g., spina bifida or meningocele, hydrocephalus, and microcephalus), cardiac malformations, gastrointestinal defects (e.g., rectal atresia or stenosis), Down's syndrome, and cleft lip or cleft palate.

Hospitalization of infant after initial discharge. Any overnight stay of the infant at a hospital after having been discharged from the hospital of delivery. Specify the date, reason, and outcome of each hospitalization.

Emergency room visits in past 2 weeks. The date, reason, and outcome of each visit.

Known allergies. Any allergies (e.g., to cow's milk, food, medication, or vaccine). **Growth and weight gain considered normal**. If not normal, clarify.

Exposure to contagious diseases in past 2 weeks. Any contact with a person who had a communicable infectious disease (e.g., a cold, hepatitis, measles, pertussis, tuberculosis, or viral or diarrheal disease).

Illness in past 2 weeks. Any observed illness the infant experienced in the past 2 weeks. Specify the condition and its outcome.

Infant has ever stopped breathing or turned blue. Any episode of apnea before the infant died.

Infant was ever breast-fed. Breast-feeding was successfully initiated irrespective of whether the infant was still breast-feeding at the time of death.

Vaccinations in past 72 hours. Vaccinations against preventable childhood diseases. Specify which vaccinations were administered.

Deceased siblings. The cause and circumstances of death of the infant's deceased siblings.

Medication history. The type of medications given to the infant in the past. Place an X where it applies. List the name of the medicines and doses taken. Indicate any home remedies given to infant, such as white clay or balms.

Emergency medical treatment. The types of medical treatment rendered to revive the infant. Explain further, if necessary, in the spaces provided below.

Page 3

When completing the questions on page 3, draw on personal observations. Use the section on household environment to indicate whether the household was visited and to document the presence or absence of selected environmental and social risk factors in the primary home of the infant (even if the events leading to death occurred somewhere else). Items for which the response is yes can be clarified in the space provided on the right. The letter codes can be used to identify the fields on supplementary pages and to facilitate data coding. Also use this section to document maternal sociodemographic information.

Type of dwelling. Concise description of the type of household (e.g., single family home, apartment, or trailer).

Water source. Source of drinking water (e.g., city water, well water, bottled water, or spring water).

Number of bedrooms. The number of rooms used as nighttime sleeping rooms, excluding living and dining rooms.

Estimated annual income. The estimated yearly income from all sources except public assistance.

On public assistance. Whether the householder receives public assistance (e.g., Aid for Families with Dependent Children [AFDC]).

Number of smokers in household. Includes both regular and occasional smokers in the household.

Use the section on infant and environment to document the immediate environment in which the events leading to death occurred. The immediate environment may or may not be the infant's primary home. If the infant was found in a crib or bed, put an X in the space provided. Indicate if the infant was sleeping alone or was sharing the crib or bed with others.

Temperature of area. A measured temperature where the infant was discovered. If a thermometer is not available, use subjective terms such as cold, cool, comfortable, warm, and hot.

The next items are included to help evaluate the possibility of asphyxia and external conditions as a cause of death. The questions evaluate the possibility of interference with breathing (e.g., covering of the nose and mouth) or hazards related to aspiration, choking, electrocution, excessive heat or cold, and other external factors. When possible, the manufacturer, brand, and lot or product number of relevant consumer products should be documented.

Sleeping or supporting surface. The characteristics of the crib, bed, floor, or other object that directly supported the infant when he or she was found dead, unresponsive, or in distress. Examples include sheepskin on cement floor, mesh seat of baby swing, sheeted mattress in crib, uncovered mattress on wood floor, and plastic-covered foam cushion on sofa. If the surface is easily compressed or deformed, that fact should be noted and the item should be obtained as evidence.

Clothing. A list and description of all articles of clothing worn by the infant, including diapers.

Other items in contact with infant. Any objects, other than the sleeping surface and articles of clothing, that were in contact with the infant (e.g., pacifier, dangling puppet on mobile, or plastic-covered, foam-filled bumper guard). These items should be secured as evidence.

Items in crib or immediate environment. Any other items in the immediate area to which the infant reasonably may have had access. Examples are pill on floor 16 inches from body, pacifier at opposite end of crib, and electric cord draping through crib. These items should be secured as evidence.

Devices operating in room. All electrical and mechanical devices in use in the room where the infant was found dead, unresponsive, or in distress. These devices include vaporizers, space heaters, fans, and infant electronic monitors (e.g., apnea monitor or heart rate monitor).

Cooling source in room and Heat source in room. The type of cooling and heat sources in the room where the infant was found. Examples of space devices include portable heaters, window air conditioners, and ceiling fans. Central devices include gas- or electricity-powered systems that heat or cool multiple rooms or an entire house.

Use the section on items collected to document material secured as evidence for presentation to the ME/C, crime laboratory, or other expert for further observation or analysis.

Page 4

Use page 4 to document interviews and procedures related to the investigation (e.g., review of medical records and referral of the case to a SIDS services agency), provide notes to the pathologist, indicate an overall assessment of whether findings suggest SIDS or another diagnosis or injury, indicate the family's interest in organ or tissue donation, and document disposition of the body. Use the section on interview and procedural tracking to record the names of informants, their relationship to the infant, phone number, and the date and time of interview.

Relationship to infant. Specific relationship to the infant (e.g., natural [or birth] mother, adoptive mother, foster mother, stepmother, maternal aunt, or neighbor).

Alternate contact person. If the mother cannot be located, the person who would be able to provide information about her.

Doll reenactment performed. Whether a doll was used to assist the witnesses in describing the body and face position of the infant when he or she was found dead, unresponsive, or in distress.

Detailed protocol completed. Whether the jurisdiction's detailed death investigation protocol was completed. Enter an X by "NA" if no such protocol exists for the jurisdiction.

Use the overall preliminary summary to provide notes to the pathologist (e.g., note and evaluate subtle mark on neck), indicate whether environmental hazards or consumer products may have contributed to the infant's death, and indicate whether the family is interested in organ or tissue donation. The last line is for the investigator to indicate whether, in his or her opinion, the investigation suggests SIDS, other causes of death, or trauma or injury.

In the section on case disposition, indicate whether the ME/C declined or accepted the reported case for investigation. A case can be declined because the cause and circumstances of death do not place the case within the ME/C's jurisdiction because of the topic (subject matter) or the location of death. A case is generally accepted so that an autopsy can be performed, an external examination can be conducted, and the cause and manner of death can be certified. Diagnosis of SIDS requires a complete autopsy, including histology, toxicology, and other tests as needed.

Transport agent. The person or transport service who brings the body to the morgue from its location at the time of the death report. Enter NA if the body is not brought to a morgue.

Funeral home. The funeral home authorized to handle the disposition of the body (regardless of whether the body has been brought to a morgue).

Page 5

Use page 5 to diagram the immediate area surrounding the infant when he or she was discovered dead, unresponsive, or in distress and to record selected observations about the area.

Page 6

Page 6 is an illustration of an infant's body that may be used to note marks, bruises, discolorations, drainage from orifices, and other observations.

References

- 1. Hanzlick R, Parrish RG. Death investigation report forms (DIRFs): generic forms for investigators (IDIRFs) and certifiers (CDIRFs). J Forensic Sci 1994;39(3):629–36.
- 2. National Center for Environmental Health. McDIDS: Medical examiner/coroner death investigation data set. Atlanta: U.S. Department of Health and Human Services, Public Health Service, CDC, 1995.

SUDDEN UNE INVESTIGATI			RM (SUIDIRF) 3.96		Case number			
Infant's full name					Age DOB			
Home address					Race Sex			
City, state, zip					Ethnicity			
County	-				SS#			
Police complaint r	number		Police departme	ent				
			I. CIRCUMSTAN	ICES OF DEAT	TH			
Action	Date	Time	By whom (perso	on or agency)	Remarks			
ME/C notified					Receipt by:			
NOK notified					Person:			
Scene visit					ME/C staff Other agency Not done			
Scene address								
Condition of infan	t when four	nd	Dead (D)	Unresponsive (U)	In distress (I) NA (N)			
Sequence of ever	Sequence of events before death:							
Event	Date	Time	Loc	cation (street, city, st	ate. county. zip code)			
Event Injury	Date	Time	Loc	cation (street, city, st	ate, county, zip code)			
	Date	Time	Loc	cation (street, city, st	ate, county, zip code)			
Injury	Date	Time	Loc Hospital:	cation (street, city, st				
Injury Discovery	Date	Time		Transport b	y: om (E) Inpatient (I)			
Injury Discovery Arrival	Date	Time	Hospital: On scene (S)	Transport b	y: om (E) Inpatient (I)			
Injury Discovery Arrival Actual death Pronounced	Date	Time	Hospital: On scene (S) En route or DOA (D) By whom:	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I)			
Injury Discovery Arrival Actual death Pronounced dead			Hospital: On scene (S) En route or DOA (D) By whom: License #:	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I) r (O)			
Injury Discovery Arrival Actual death Pronounced dead Event			Hospital: On scene (S) En route or DOA (D) By whom: License #:	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I) v (O) Remarks			
Injury Discovery Arrival Actual death Pronounced dead Event Infant placed			Hospital: On scene (S) En route or DOA (D) By whom: License #:	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I) / (O) Remarks Place:			
Injury Discovery Arrival Actual death Pronounced dead Event Infant placed Known alive			Hospital: On scene (S) En route or DOA (D) By whom: License #:	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I) r (O) Remarks Place: Place:			
Injury Discovery Arrival Actual death Pronounced dead Event Infant placed Known alive Infant found			Hospital: On scene (S) En route or DOA (D) By whom: License #:	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I) v (O) Remarks Place: Place:			
Injury Discovery Arrival Actual death Pronounced dead Event Infant placed Known alive Infant found First response			Hospital: On scene (S) En route or DOA (D) By whom: License #:	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I) r (O) Remarks Place: Place: Place: Type:			
Injury Discovery Arrival Actual death Pronounced dead Event Infant placed Known alive Infant found First response EMS called			Hospital: On scene (S) En route or DOA (D) By whom: License #: By whom (p	Transport b Emergency ro During surgery Where:	y: om (E) Inpatient (I) r (O) Remarks Place: Place: Place: Type:			

Case number	

II. BASIC	MEDICAL	INFOF	RMAT	ION		
Health care provider for infant:					Phone:	
Medical history Not investigated (X)	Unk (U)	No pa	ast proble	ems (N)	Medical prob	olems (P)
Medical Physician (P) source Medical records (M)	Other health Family (F)	care pro	vider (H)		Other (O) None (N)	<u> </u>
Specific infant medical history		Yes	No	Unk	Rema	arks
A. Problems during labor or delivery Birth hospital: Birth city and state:						
B. Maternal illness or complications during pregnancy Number of prenatal visits:	/					
C. Major birth defects						
D. Infant was one of multiple births (e.g., a twin) Birth weight: Gestational age at birth (weeks):						
E. Hospitalization of infant after initial discharge						
F. Emergency room visits in past 2 weeks						
G. Known allergies						
H. Growth and weight gain considered normal						
Exposure to contagious disease in past 2 weeks						
J. Illness in past 2 weeks						
K. Lethargy, crankiness, or excessive crying in past 4	l8 hours					
L. Appetite changes in past 48 hours						
M. Vomiting or choking in past 48 hours						
N. Fever or excessive sweating in past 48 hours						
O. Diarrhea or stool changes in past 48 hours						
P. Infant has ever stopped breathing or turned blue						
Q. Infant was ever breast-fed						
R. Vaccinations in past 72 hours						
S. Infant injury or other condition not mentioned abov	e					
T. Deceased siblings						
Diet in past 2 weeks included: Breast milk Date and time of last meal: Content of last meal:	Formula	Cow'	's milk	Soli	ds	
Medication history Not investigated (X) l	Unk (U) Rx (P) (OTC (O)	Hom	e remedies (H)	_ None (N)
Emergency medical treatment None (N)	CPR (R)	_ Transfu	sion (T)	IV f	luids (F) Su	urgery (S)
' ' '	e nature and dura nd treatments use			infant cr	e any known injurie eated or observed ation or treatment:	

Case number	

III. HOUSEHOLD ENVIRONMENT											
		Action	1			Yes	No	Unk		R	lemarks
A. House was visited											
B. Evidence of ald	cohol ab	use									
C. Evidence of dre	ug abus	е									
D. Serious physic	al or me	ntal illne	ss in hous	ehold							
E. Police have be	en calle	d to hom	e in past								
F. Prior contact w	ith socia	al service	s						=		
G. Documented h	istory of	child ab	use						=		
H. Odors, fumes,	or peelir	ng paint i	n househo	old					-		
I. Dampness, visi	ible stan	iding wat	er, or mole	d growth					-		
J. Pets in househ	old										
Type of dwelling:				٧	Vater sour	ce:			Number of b	oedro	oms:
Main language in	home:			Estimate	ed annual i	ncome:			On public as	ssista	ance Yes No
Number of adults	(≥18 ye	ars of ag	e):	and child	dren (<18 <u>)</u>	years of	age):	living in	n household.	Tota	I = people.
Number of smoke	rs in ho	usehold:	Doe	es usual	caregiver	smoke?	Yes	No _	Unk	If ye	es, cigarettes/day
Maternal Ag information	je:		rried (M) gle (S)		orced (D) lowed (W)		Cohabiting w/partner: Yes No		Education (years):		Employed (E) Not employed (N)
			IV.	. INF	ANT A	ND EI	NVIRO	NMEN	Т		
In crib (C) Other (O)	In I	ped (B)			eeping alo		(O)	NA	(N)		Temperature of area:
Body position whe	en place	d		Ur	nk	Back	Stor	mach	Side		Other
Body position who	en found	l		Ur	nk	Back	Stor	mach	Side		Other
Face position whe	en found			Un	ık To	o left _	To right	t	Facedown		Face up To side
Nose or mouth wa	as cover	ed or ob	structed	Ur	nk	_ No	Yes				
Postmortem chan	ges whe	en found		Ur	nk	None	Rigo	or	Lividity	_ Oth	ner
Number of cover	or blank	et layers	on infant:		Cov	ers on ir	fant (C)	Wr	apped (W)		No covers (N)
Sleeping or suppo	orting su	rface:				Clo	othing:				
Other items in con	ntact with	n infant:				Ite	ms in crib o	or immedi	iate environme	ent:	
Devices operating in room: Cooling source in r On (+) Ce Off (-) Sp				entral (C	,	e (N)	Heat source i On (+) Off (-)	_ Ce	entral (C) None (N)		
Item collected	Yes	No	Item co	llected	Yes	No	Number o	f scene p	hotos taken:		
Baby bottle			Apnea r	nonitor			Other item	ns collect	ed:		
Formula			Medicin	es							
Diaper			Pacifier								
Clothing			Bedding	J							

Case	number	
vast	HUHHDEI	

V. INTERVIEW AND PROCEDURAL TRACKING									
Contact	Name		Dat	:e	Time	Phone	Relationship to infant		
Mother									
Father									
Usual caregiver									
Last caregiver									
Placer									
Last witness									
Finder									
First responder									
EMS caller									
EMS responder									
Police									
Alternate contact pe	rson:						Phone:		
Actio	on	Date	Ti	me			Action		
Medical record revie	w for infant				Doll r	reenactment	performed	Yes No	
Medical record revie	w for mother				Scen	e diagram co	ompleted	Yes No	
Physician or provide	r interview				Body diagram completed Yes No				
Referral to social or	SIDS services				Detailed protocol completed Yes No NA				
Cause of death discr	ussed with family				Other:				
	VI	OVERA	ΙI P	RFII	MINA	ARY SUI	MMARY		
Notes to pathologist	VI. OVERALL PRELIMINARY SUMMARY Notes to pathologist performing autopsy:								
Indications that an e consumer product co		l, drug, poiso Yes		No	Organ or tissue donation requested by family or agency Yes No Unk				
Cause of death:	Presumed SI	DS	Suspe	ect traui	ma or i	injury _	Other		
		VII.	CAS	SE DI	SPO	SITION			
Case disposition	Case declin	ned (D) due t				ase accepted utopsy (A)	d (J) for Inspection (I)	Certification (C)	
Body disposition		for exam (E)	(L)	Brougl		holding or c		leased from site (R)	
	Brought in	ioi exam (L)		_ blougi	11 11 101	riolaling or c	iaiii (O) ite	leased from site (IV)	
Who will sign DC? Transport agent:				Funeral home:					
Investigator and affile	iation:					Date	:		
					Num	ber of supplement p	ages attached:		

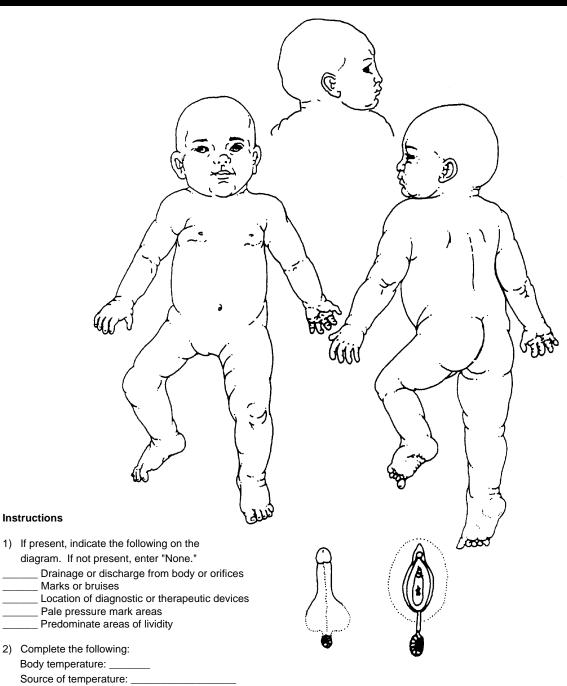
_		
Case	number	

SCENE DIAGRAM

Instructions	
Use figure at right for a rectangular room, and use figure below right for a square room. Use a supplementary page to draw an unusually shaped room.	
2) Indicate the following on the diagram (check when done): North direction Windows and doors Wall lengths Ceiling height: Location of furniture Location of crib or bed Body location when found Location of other objects in room Location of heating and cooling supplies and returns	
Make additional notes or drawings in available spaces as needed.	
4) Check all that apply about heat source: Gas furnace or boiler Electric furnace or boiler Forced air Steam or hot water Electric baseboard Other: None	
Thermostat setting: Thermostat reading: Actual room temperature: Outside temperature:	

Case number _____

BABY DIAGRAM



SUDDEN UNEXPLAINED INFANT DEATH	
INVESTIGATION REPORT FORM (SUIDIRF)	3.96

Case	number	
Case	Hullibei	

SUIDIRF SUPPLEMENT

MMWR

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