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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
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Centers for Disease Control and Prevention .... David Satcher, M.D., Ph.D.
Director

The material in this report was prepared for publication by:

National Center for Chronic Disease Prevention
and Health Promotion .... James S. Marks, M.D., M.P.A.
Director

Division of Reproductive Health .... Lynne S. Wilcox, M.D., M.P.H.
Director

National Center for Environmental Health .... Richard J. Jackson, M.D.
Director

Division of Environmental Hazards and Health Effects .... Henry Falk, M.D.
Director

The production of this report as an *MMWR* serial publication was coordinated in:

Epidemiology Program Office.................................... Stephen B. Thacker, M.D., M.Sc.
Director

Richard A. Goodman, M.D., M.P.H.
Editor, MMWR *Series*

Scientific Information and Communications Program

Recommendations and Reports.................................. Suzanne M. Hewitt, M.P.A.
Managing Editor

Elizabeth L. Hess
Project Editor

Peter M. Jenkins
Visual Information Specialist

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Participating Organizations
U.S. Department of Health and Human Services,
Interagency Panel on Sudden Infant Death Syndrome

Centers for Disease Control and Prevention

Consumer Product Safety Commission

Food and Drug Administration

Health Resources and Services Administration
(Maternal and Child Health Bureau)

Indian Health Service

National Institutes of Health

National Center on Child Abuse and Neglect

U.S. Department of Defense

U.S. Department of Justice

Participants
Workshop on Guidelines for Scene Investigation of Sudden Unexplained Infant Deaths

Randall C. Alexander, M.D.
American Academy of Pediatrics
Iowa City, IA

Susan Alpert, Ph.D., M.D.
Center for Devices and Radiologic Health
Food and Drug Administration
Rockville, MD

James D. Beisner, M.P.P.A.
Chief Deputy Coroner, Orange County
Santa Anna, CA

Manon A. Boudreault, M.P.H.
Consumer Product Safety Commission
Bethesda, MD

Karen H. Bourdon, M.A.
National Institute of Mental Health
National Institutes of Health
Rockville, MD

Kevin E. Bove, M.D.
Society for Pediatric Pathology
Cincinnati, OH

Denise R. Brooks, M.S., R.R.T.
Institute for Child Survival, Inc.
Acworth, GA

Joye Maureen Carter, M.D.
Association of State and Territorial Health Officials
Washington, DC

Gilberto F. Chavez, M.D., M.P.H.
California Department of Health Services
Sacramento, CA

Olivia J. Cowdrill, M.S.
National SIDS Resource Center
McLean, VA

Dale P. Dirks
Health and Medicine Council of Washington
Washington, DC

Mary C. Dufour, M.D., M.P.H.
National Institute on Alcohol Abuse and Alcoholism
National Institutes of Health
Rockville, MD

Mary Fran Ernst
Medical Examiner's Office
St. Louis, MO

Sally Flanzer, Ph.D.
National Center on Child Abuse and Neglect
Washington, DC

Laurie Foudin, Ph.D.
National Institute on Alcohol Abuse and Alcoholism
National Institutes of Health
Rockville, MD

Richard C. Froede, M.D.
Forensic Pathology Committee
College of American Pathologists
Tucson, AZ

George A. Gay
National Center for Health Statistics
CDC
Hyattsville, MD

Michael S. Gluck, D.Sc.
Center for Devices and Radiologic Health
Food and Drug Administration
Rockville, MD

Joseph J. Halka, M.D.
Forensic Pathologist/Medical Examiner
Santa Anna, CA

Randy L. Hanzlick, M.D.
National Center for Environmental Health
CDC
Atlanta, GA

Fern R. Hauck, M.D., M.S.
Department of Family Medicine
Loyola University Medical Center
Maywood, IL

Brenda D. Hayes, D.S.W, M.P.H.
Office of Minority Health
CDC
Atlanta, GA

Howard J. Hoffman, M.A.
National Institute of Deafness and Other Communicable Disorders
National Institutes of Health
Bethesda, MD

Solomon Iyasu, M.B.B.S., M.P.H.
National Center for Chronic Disease Prevention and Health Promotion
CDC
Atlanta, GA

Coryl LaRue Jones, Ph.D.
National Institute on Drug Abuse
National Institutes of Health
Rockville, MD

John L. Kiely, Ph.D.
National Center for Health Statistics
CDC
Hyattsville, MD

Michele Kiely, Dr.P.H.
Health Resources and Services Administration
Maternal and Child Health Bureau
Rockville, MD

Robert H. Kirschner, M.D.
Office of the Medical Examiner
Cook County
Chicago, IL

Gus H. Kolilus
State Technical Assistance Team
Jefferson City, MO

Chris L. Krogh, M.D., M.P.H.
Indian Health Service
Rapid City, SD

Henry F. Krous, M.D.
Department of Pathology
Childrens' Hospital
San Diego, CA

Helen Lerner, R.N.C., Ed.D.
National Institute of Child Health and Human Development
National Institutes of Health
Bethesda, MD

David W. Lloyd, J.D.
National Center on Child Abuse and Neglect
Washington, DC

Marian F. MacDorman, Ph.D.
National Center for Health Statistics
CDC
Hyattsville, MD

Mary E. McClain, R.N., M.S.
Association of SIDS Program Professionals
Boston, MA

Patricia J. McFeeley, M.D.
Office of the Medical Investigator
Albuquerque, NM

Brenda G. Meister
U.S. Department of Justice
Washington, DC

Thomas L. Moran
SIDS Alliance
Columbia, MD

Ortwin A. Narr, M.A.
Police Executive Research Forum
Washington, DC

F. Sam Notzon, Ph.D.
National Center for Health Statistics
CDC
Hyattsville, MD

Thomas J. O'Loughlin
International Association of Chiefs of Police
Alexandria, VA

Paul E. Phillips
Consumer Product Safety Commission
Ft. Lauderdale, FL

Ted R. Quasala
Bureau of Indian Affairs
Washington, DC

Brad B. Randall, M.D.
Coroner/Forensic Pathologist
Sioux Falls, SD

Diane L. Rowley, M.D., M.P.H.
National Center for Chronic Disease Prevention and Health Promotion
CDC
Atlanta, GA

Kenneth C. Schoendorf, M.D., M.P.H.
National Center for Health Statistics
CDC
Hyattsville, MD

John E. Smialek, M.D.
Chief Medical Examiner
Baltimore, MD

JanaLee L. Sponberg, D.A.E.
U.S. Department of Defense
Arlington, VA

Alfred Steinschneider, M.D., Ph.D.
The American Sudden Infant Death Syndrome Institute
Atlanta, GA

William Q. Sturner, M.D.
American Academy of Forensic Sciences
Little Rock, AR

Marie Valdes-Dapena, M.D.
Department of Pathology
University of Miami School of Medicine
Miami, FL

Peter C. Van Dyck, M.D., M.P.H.
Health Resources and Services Administration
Maternal and Child Health Bureau
Rockville, MD

Susan Wells
American Bar Association Center on Children and the Law
Chicago, IL

Marian Willinger, Ph.D.
National Institute of Child Health and Human Development
National Institutes of Health
Bethesda, MD

Kevin J. Winn, M.D.
The American Sudden Infant Death Syndrome Institute
Atlanta, GA

Louise M. Wulff, Sc.D.
American College of Obstetrics and Gynecology
Washington, DC

The following CDC staff prepared this report:

Solomon Iyasu, M.B.B.S., M.P.H.
Diane L. Rowley, M.D., M.P.H.
Division of Reproductive Health
National Center for Chronic Disease Prevention and Health Promotion

Randy L. Hanzlick, M.D.
Division of Environmental Hazards and Health Effects
National Center for Environmental Health

in collaboration with

Marian Willinger, Ph.D.
National Institute of Child Health and Human Development
National Institutes of Health

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.

*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

Centers for Disease Control and Prevention
Medical Examiner and Coroner Information Sharing Program
4770 Buford Highway, N.E.
Mail Stop F–35
Atlanta, GA 30341-3724
Phone: (770) 488-7060
Fax: (770) 488-7044
E-mail: MECISP1@cehdeh1.em.cdc.gov

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

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 UNEXPLAINED INFANT DEATH INVESTIGATION REPORT FORM (SUIDIRF) 3.96

Case number ________________

Infant's full name ______________________________ Age _______ DOB _______

Home address ______________________________ Race _______ Sex _______

City, state, zip ______________________________ Ethnicity _______________

County ______________________________ SS# _______________

Police complaint number _______________ Police department ______________________________

I. CIRCUMSTANCES OF DEATH

Action	Date	Time	By whom (person or agency)	Remarks
ME/C notified				Receipt by:
NOK notified				Person:
Scene visit				___ ME/C staff ___ Other agency ___ Not done
Scene address				
Condition of infant when found			___ Dead (D) ___ Unresponsive (U) ___ In distress (I) ___ NA (N)	
Sequence of events before death:				

Event	Date	Time	Location (street, city, state, county, zip code)
Injury			
Discovery			
Arrival			Hospital: Transport by:
Actual death			___ On scene (S) ___ Emergency room (E) ___ Inpatient (I) ___ En route or DOA (D) ___ During surgery (O)
Pronounced dead			By whom: License #: Where:

Event	Date	Time	By whom (person)	Remarks
Infant placed				Place:
Known alive				Place:
Infant found				Place:
First response				Type:
EMS called				From where:
EMS response			Agency:	
Police response			Agency:	

Place of fatal event	Describe type of place:
___ Witness in room or area (W) or ___ Unwitnessed (U) ___ At own home (H) or ___ Away from home (A) ___ Indoors (I) or ___ Outdoors (O) ___ In vehicle (V) or ___ Not in vehicle (N)	

SUDDEN UNEXPLAINED INFANT DEATH INVESTIGATION REPORT FORM (SUIDIRF) 3.96

Case number ________________

II. BASIC MEDICAL INFORMATION

Health care provider for infant: Phone:

Medical history: ___ Not investigated (X) ___ Unk (U) ___ No past problems (N) ___ Medical problems (P)

Medical source: ___ Physician (P) ___ Medical records (M) ___ Other health care provider (H) ___ Family (F) ___ Other (O) ___ None (N)

Specific infant medical history	Yes	No	Unk	Remarks
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				
I. Exposure to contagious disease in past 2 weeks				
J. Illness in past 2 weeks				
K. Lethargy, crankiness, or excessive crying in past 48 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 above				
T. Deceased siblings				

Diet in past 2 weeks included: ___ Breast milk ___ Formula ___ Cow's milk ___ Solids
Date and time of last meal:
Content of last meal:

Medication history: ___ Not investigated (X) ___ Unk (U) ___ Rx (P) ___ OTC (O) ___ Home remedies (H) ___ None (N)

Emergency medical treatment: ___ None (N) ___ CPR (R) ___ Transfusion (T) ___ IV fluids (F) ___ Surgery (S)

Medicine names and doses; if prescription, include Rx number, Rx date, and name of pharmacy:	Describe nature and duration of resuscitation and treatments used to revive infant:	Describe any known injuries or marks on infant created or observed during resuscitation or treatment:

SUDDEN UNEXPLAINED INFANT DEATH
INVESTIGATION REPORT FORM (SUIDIRF) 3.96 **Case number** ________________

III. HOUSEHOLD ENVIRONMENT

Action	Yes	No	Unk	Remarks
A. House was visited				
B. Evidence of alcohol abuse				
C. Evidence of drug abuse				
D. Serious physical or mental illness in household				
E. Police have been called to home in past				
F. Prior contact with social services				
G. Documented history of child abuse				
H. Odors, fumes, or peeling paint in household				
I. Dampness, visible standing water, or mold growth				
J. Pets in household				

Type of dwelling: | Water source: | Number of bedrooms:

Main language in home: | Estimated annual income: | On public assistance ___ Yes ___ No

Number of adults (≥18 years of age): ___ and children (<18 years of age): ___ living in household. Total = ___ people.

Number of smokers in household: | Does usual caregiver smoke? ___ Yes ___ No ___ Unk | If yes, ___ cigarettes/day

Maternal information	Age:	___ Married (M) ___ Divorced (D) ___ Single (S) ___ Widowed (W)	Cohabiting w/partner: ___ Yes ___ No	Education (years):	___ Employed (E) ___ Not employed (N)

IV. INFANT AND ENVIRONMENT

___ In crib (C) ___ In bed (B) ___ Other (O) | ___ Sleeping alone (A) ___ NA (N) ___ Sleeping with others (O) | Temperature of area:

Body position when placed	___ Unk ___ Back ___ Stomach ___ Side ___ Other
Body position when found	___ Unk ___ Back ___ Stomach ___ Side ___ Other
Face position when found	___ Unk ___ To left ___ To right ___ Facedown ___ Face up ___ To side
Nose or mouth was covered or obstructed	___ Unk ___ No ___ Yes
Postmortem changes when found	___ Unk ___ None ___ Rigor ___ Lividity ___ Other

Number of cover or blanket layers on infant: ___ Covers on infant (C) ___ Wrapped (W) ___ No covers (N)

Sleeping or supporting surface: | Clothing:

Other items in contact with infant: | Items in crib or immediate environment:

Devices operating in room: | Cooling source in room: ___ On (+) ___ Central (C) ___ None (N) ___ Off (-) ___ Space (S) | Heat source in room: ___ On (+) ___ Central (C) ___ None (N) ___ Off (-) ___ Space (S)

Item collected	Yes	No	Item collected	Yes	No	Number of scene photos taken:
Baby bottle			Apnea monitor			Other items collected:
Formula			Medicines			
Diaper			Pacifier			
Clothing			Bedding			

SUDDEN UNEXPLAINED INFANT DEATH INVESTIGATION REPORT FORM (SUIDIRF) 3.96

Case number _______________

V. INTERVIEW AND PROCEDURAL TRACKING

Contact	Name	Date	Time	Phone	Relationship to infant
Mother					
Father					
Usual caregiver					
Last caregiver					
Placer					
Last witness					
Finder					
First responder					
EMS caller					
EMS responder					
Police					
Alternate contact person:				Phone:	

Action	Date	Time	Action
Medical record review for infant			Doll reenactment performed ___ Yes ___ No
Medical record review for mother			Scene diagram completed ___ Yes ___ No
Physician or provider interview			Body diagram completed ___ Yes ___ No
Referral to social or SIDS services			Detailed protocol completed ___ Yes ___ No ___ NA
Cause of death discussed with family			Other:

VI. OVERALL PRELIMINARY SUMMARY

Notes to pathologist performing autopsy:

Indications that an environmental hazard, drug, poison, or consumer product contributed to death ___ Yes ___ No	Organ or tissue donation requested by family or agency ___ Yes ___ No ___ Unk

Cause of death: ___ Presumed SIDS ___ Suspect trauma or injury ___ Other

VII. CASE DISPOSITION

Case disposition	___ Case declined (D) due to ___ Topic (T) ___ Locale (L)	___ Case accepted (J) for ___ Autopsy (A) ___ Inspection (I) ___ Certification (C)
Body disposition	___ Brought in for exam (E) ___ Brought in for holding or claim (C) ___ Released from site (R)	
Who will sign DC?		

Transport agent:	Funeral home:

Investigator and affiliation:	Date:
	Number of supplement pages attached:

SUDDEN UNEXPLAINED INFANT DEATH
INVESTIGATION REPORT FORM (SUIDIRF) 3.96 **Case number _______________**

SCENE DIAGRAM

Instructions

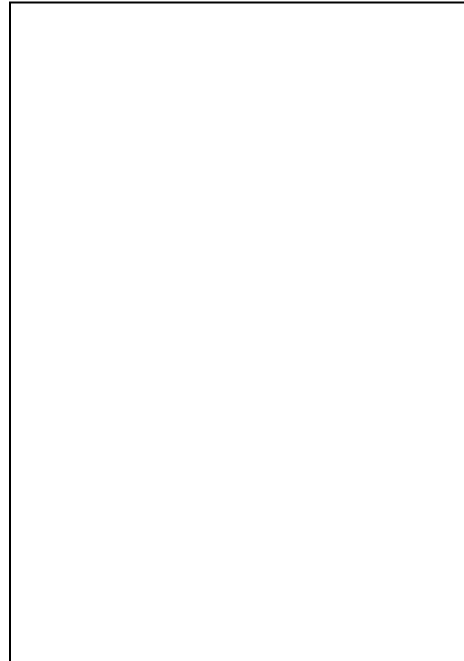
1) Use figure at right for a rectangular room, and use figure below right for a square room. Use a supplementary page to draw an unusually shaped room.

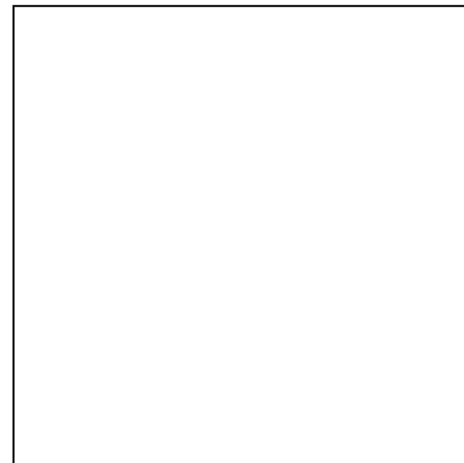
2) Indicate the following on the diagram (check when done):
___ North direction
___ Windows and doors
___ Wall lengths
Ceiling height: __________
___ Location of furniture
___ Location of crib or bed
___ Body location when found
___ Location of other objects in room
___ Location of heating and cooling supplies and returns

3) 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

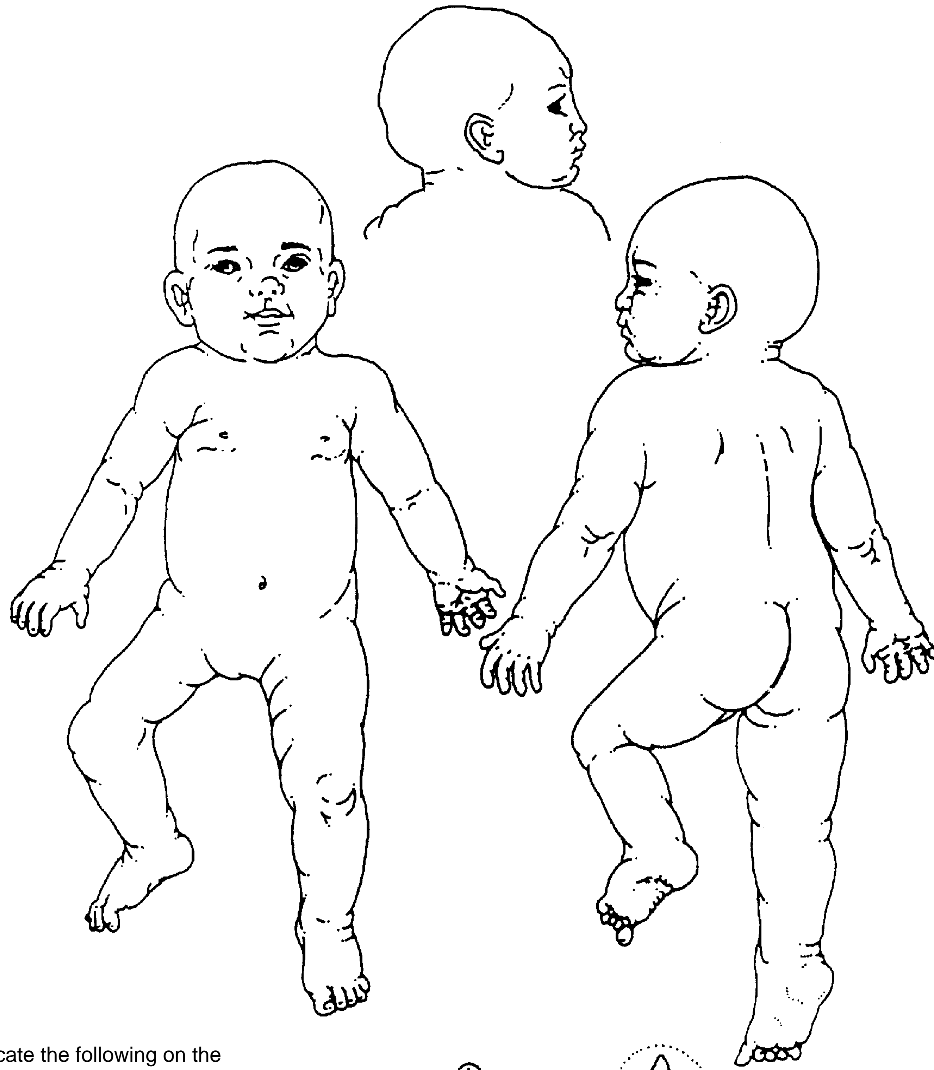
5) Complete the following:
Thermostat setting: ________
Thermostat reading: ________
Actual room temperature: ________
Outside temperature: ________





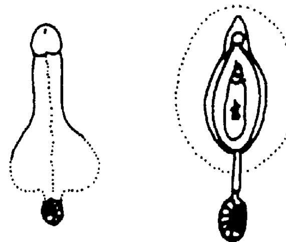
SUDDEN UNEXPLAINED INFANT DEATH
INVESTIGATION REPORT FORM (SUIDIRF) 3.96 **Case number** _______________

BABY DIAGRAM



Instructions

1) If present, indicate the following on the diagram. If not present, enter "None."
______ Drainage or discharge from body or orifices
______ Marks or bruises
______ Location of diagnostic or therapeutic devices
______ Pale pressure mark areas
______ Predominate areas of lividity



2) Complete the following:
Body temperature: _______
Source of temperature: ___________________

SUDDEN UNEXPLAINED INFANT DEATH
INVESTIGATION REPORT FORM (SUIDIRF) 3.96 **Case number** ________________

SUIDIRF SUPPLEMENT

Supplementary page ___

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