

Supplemental Information

SCENARIOS 1–4: DESCRIPTION OF HYPOTHETICAL SCENARIOS FOR SUIDS

Scenario 1: A 4-month-old white non-Hispanic boy born at 38 weeks' gestation with no complications. Infant placed to sleep on his back on an adult full bed with mother and boyfriend. Mother reports awaking at 4 AM and finding infant under boyfriend's chest and arm with the infant's chest and abdomen being compressed. The death investigator arrived at the scene quickly and noted that there was lack of lividity (blanching; sparing) on the anterior and posterior thorax in which the compression had reportedly occurred, although lividity was present in other areas. No history of illness since birth. No history of chronic illness or disability. Negative metabolic newborn screening results. No history of previous CPS involvement. *Autopsy results:* Negative histology, radiography, microbiology, and pathology findings.

Scenario 2: A 2-month-old African American non-Hispanic boy born at 39 weeks' gestation weighing 3118.5 g. Infant placed to sleep on his back on an adult queen bed with an adult. Found on stomach with face down pressed into a pillow with nose and mouth reported as fully obstructed. Child's weight at death was 10 lb. No history of chronic illness or disability. No abnormal newborn screening results. No previous CPS involvement. No reported illness or injury in last 72 hours. *Autopsy results:* Negative toxicology. Negative

histology. Negative radiographs. No findings consistent with abuse.

Scenario 3: A 1-month-old white girl found dead on couch shared with mother. Mother lay on the couch supine with infant prone on her chest, sleeping. Mother fell asleep watching the late news. A little after 4 AM the mother awoke to find the infant on her right side between herself and the back of the couch, prone. Infant's feet were turned around near the mother's chest and head was close to the mother's hip. Infant was lying left cheek down with her face against the back of the couch. Seating area from front to back is 27 in. Length of the couch is 71 in. Five 5 1/2-in cushions were against the back of the couch. Mother is 5'5" tall and weighs ~130 lb. Examination at the scene showed lack of lividity on the left cheek as well as pallor (lack of lividity) on the nose, and around the nose and mouth. Infant lived in apartment with mother and healthy 3-year-old sibling. Siblings have different fathers. Infant born by repeat Cesarean delivery at term, 7 lb. 5 oz. Postnatal course unremarkable. Mother smokes ~1 to 1 1/2 packs per day but states she does not smoke in the apartment. Significant time is spent at her parents' home and both maternal grandparents smoke a great deal. *Autopsy findings:* 20th percentile for length, 50th percentile for weight, and 50th percentile for head circumference. A needle puncture wound is over the left tibia. Brain weighs 472 g and shows no gross abnormalities. Neuropathologist's

opinion, "Immature central nervous system with no significant neuropathological abnormalities." Faint intraparenchymal petechiae of thymus gland. Heart weighs 22 g with no structural abnormalities. Lungs weigh 60 and 50 g, respectively. Grossly described as mottled and congested. Remainder of gross examination unremarkable. Microscopical examination is non-diagnostic. All 5 lung sections show marked interstitial congestion and confluent atelectasis, more prominent on the right. Toxicology, screen for inborn errors of metabolism, and skeletal survey are negative. Cerebrospinal fluid culture yields no growth. Culture of blood yields *Viridans Strep* and coagulase/agglutination negative *Staph*.

Scenario 4: A 3-month-old boy was found dead in its crib, face up (supine). He was clad in a dry diaper and a thin blanket covered the body but not the head or face. The infant was born at term and there were no prenatal or postnatal medical conditions. The home was well cared for. There was nothing in the crib or at the scene that suggested a possible external cause of death or contributing factor. This was the parents' first child. A complete autopsy was performed which showed no abnormalities, histology showed normal organs, and toxicology tests for alcohol, drugs of abuse, and therapeutic drugs were negative. The office could not afford to have testing performed for genetic cardiac abnormalities. A routine metabolic screen was negative.