

Sudden unexpected infant deaths may be underestimated: study

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(HealthDay)—U.S. medical examiners and coroners may not accurately

classify some sudden unexpected infant deaths (SUIDs) because they don't all follow the same procedures when investigating and classifying such deaths, according to new research.

The study surveyed nearly 400 [medical examiners](#) and [coroners](#) in 2014. It raises doubts about the reliability of current SUID reporting, given the possibility that a significant number of SUID cases are being misattributed to other causes of [infant death](#), the researchers said.

"Death investigation guidelines exist," said study lead author Carrie Shapiro-Mendoza, a senior scientist in the maternal and infant health branch of the U.S. Centers for Disease Control and Prevention.

She noted that the CDC itself has a classification system with standards for how cause-of-death should be decided during a death investigation.

"[But] U.S. medical examiners and coroners do not uniformly investigate and classify SUID," Shapiro-Mendoza said.

"Because of that, they certify the same deaths differently. This variability influences surveillance and research, impacts true understanding of infant mortality causes, and inhibits our ability to accurately monitor and ultimately prevent future deaths," she said.

SUID occurs when an infant under the age of 1 year dies suddenly and unexpectedly as a result of suffocation, entrapment between two objects, an infection, choking, breathing problems, heartbeat irregularity or injury, according to the U.S. Institute of Child Health and Human Development.

Sudden Infant Death Syndrome (SIDS) is deemed a distinct form of SUID. A death is classified as SIDS when an infant's death can't be explained, despite a full autopsy, death scene examination and clinical

review.

The new survey asked examiners and coroners to consider four different hypothetical infant death scenarios. Each was asked to indicate how he or she would handle the exam, before rendering a final classification for each scenario. Most of the survey participants were male and older than 50.

The results suggested a significant degree of disagreement regarding final cause of death.

While between 64 to 77 percent of those surveyed agreed that suffocation or asphyxia was the cause of death in the first three scenarios they considered, survey responses indicated that roughly 15 percent came to a different conclusion.

There was less agreement on the fourth scenario. Almost 40 percent attributed the death to SIDS. Thirty percent said it was SUID. Less than 1 percent identified suffocation or asphyxia.

While half of those surveyed said they had, in the course of their work, used SIDS as a determination of death, half said they had not.

And when SIDS or SUIDs was considered, the definitions used to establish a determination varied considerably, as did the choice of diagnostic screening tools.

For example, metabolic screenings (where bile and blood samples are tested for various disorders) were used routinely about 80 percent of the time. But radiology screenings were routinely conducted about 60 percent of the time.

Genetic testing was used just 7 percent of the time, the study authors

said.

And while 94 percent of the respondents said they relied on death scene investigation reports when coming to a final determination, fewer (88 percent) said they conducted a full autopsy. Even fewer (85 percent) conducted a toxicology analysis or a review of an infant's medical history (82 percent).

The study authors concluded that medical examiners and coroners who certified a final cause of death didn't uniformly agree on which bits of evidence determined exact cause of [death](#).

Shapiro-Mendoza suggested that the National Association of Medical Examiners and the International Association of Coroners and Medical Examiners should "place greater emphasis on standardizing the review of SUID."

Such a move, she said, would be critical for researchers. It would also be important for pediatric providers who want to "convey more reliable information about SUID causes and risk factors to parents and other infant caregivers," she added.

Dr. Peter Richel, chief of pediatrics at Northern Westchester Hospital Center in Mount Kisco, N.Y., agreed.

"We certainly need to employ consistent criteria when evaluating the cause of SUID," he said.

Still, Richel stressed that SUID remains rare.

He said that "most examiners in the field are dedicated to their profession, and are earnest in their wish to provide the most accurate information."

The study was published online June 5 in the journal *Pediatrics*.

More information: Carrie K. Shapiro-Mendoza, Ph.D., M.P.H., senior scientist, maternal and infant health branch, division of reproductive health, U.S. Centers for Disease Control and Prevention, Atlanta; Peter L. Richel, M.D., chief, department of pediatrics, Northern Westchester Hospital Center, Mount Kisco, N.Y.; July 2017, *Pediatrics*.

There's more on sudden unexpected infant death at the [U.S. Centers for Disease Control and Prevention](#).

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