



## Pathology/Biology Section - 2016

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### H30 Risk Assessment for Asphyxia Without Doll Reenactments in Infant Deaths

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After attending this presentation, attendees will understand the importance of identifying the risk factors for positional asphyxia in infant deaths by examining the trends of Sudden and Unexpected Infant Death Investigation (SUIDI) in the last decade-and-a-half, over which period of time the number of Sudden Infant Death Syndrome (SIDS) cases has remained at historically low levels. This presentation will then provide the audience with an approach to SUIDI that produces desirable outcomes without the use of routine doll reenactments.

This presentation will impact the forensic science community by showing comparable outcomes in terms of identification of risk factors for asphyxial deaths in SUIDI cases between offices with and without a routine doll reenactment strategy and will lead attendees to consider the level of experience of the investigator before implementing a policy of routine doll reenactments; however, the conclusions in this study are not meant to diminish the importance of the doll reenactment for the purposes of creating a visual record of a SUIDI case, especially as a way of communicating the findings to the pathologist or other interested party. Finally, no discussion on the benefits of doll reenactments would be complete without addressing the emotional effects on both the investigator and caregiver.

The Montgomery County Coroner's Office (MCCO) in Dayton, OH, performed investigations in 52 sudden infant deaths from January of 2009 to July of 2015. The case records of sudden and unexpected infant deaths in this office were evaluated for the rate of identification of risk factors for positional asphyxia, which includes co-sleeping with an adult or sibling, sleeping on a couch or an adult bed, being found in the prone position or with the face against the mattress, cushion, pillow, or another person's body, and wedging. The approach taken to SUIDI by the MCCO does not include routine doll reenactments. Out of a total of 53 cases, risk factors of positional asphyxia were identified in 43 (81.1%), of which none involved the use of a doll reenactment, and of the 10 remaining cases, only one was subject to a doll reenactment. Previous studies have demonstrated that the risk factors for asphyxia can be identified in as many as 85% of cases of SUIDI when the strategy includes the use of routine doll reenactments.<sup>1</sup> In contrast, the MCCO relies on the death investigators' multi-year experience as police homicide detectives in order to conduct thorough investigations. The results of this study reveal comparable outcomes between the MCCO and the office of the previous study's authors, despite a disparity in the number of doll reenactments performed.

#### Reference(s):

1. Pasquale-Styles M.A., Tackitt P.L., Schmidt C.J. "Infant Death Scene Investigation and the Assessment of Potential Risk Factors for Asphyxia: A Review of 209 Sudden Unexpected Infant Deaths." *J Forensic Sci.* 2007;52:924-9.

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#### SUIDI, Positional Asphyxia, Doll Reenactment