Children's Hospital of Philadelphia PolicyLab

Yield of Postmortem Skeletal Surveys in Infants Presenting to Emergency Care With Sudden and Unexpected Death

Visit Article

Child abuse should be considered in cases of sudden unexpected infant death (SUID). Postmortem skeletal surveys (PM-SS) are recommended to evaluate for abusive fractures in SUID. Little is known about the yield of PM-SS among infants presenting to emergency care with SUID. Our objectives were to (1) describe the presentation and care of infants with SUID at a tertiary children's hospital emergency department and (2) report PM-SS use and findings. We performed a retrospective study of infants younger than 12 months with SUID presenting to an urban emergency department from 2007 to 2019. We describe their presentation and care, including PM-SS performance and findings, referrals to the medical examiner, and reports to child protective services (CPS). We assessed for associations between race, payer, and presentation with reports to CPS. Of 73 infants with SUID, concern for unsafe sleep was documented in 45 (61.6%) and 71 (97.3%) underwent cardiopulmonary resuscitation by a medical professional. All 73 (100%) underwent PM-SS and were referred to the medical examiner. Twelve definite fractures (11 rib, 1 classic metaphyseal lesion) and 8 possible fractures (7 rib, 1 classic metaphyseal lesion) were identified among 6 (8.2%) infants. Forty-three (58.9%) were reported to CPS. There were no associations between race, payer, age, or history of unsafe sleep and CPS reports. One in 12 cases of SUID had a possible and/or definite fracture identified on plain radiography. Multicenter studies are needed to compare yield across different postmortem imaging modalities and populations.

Journal:

Pediatric Emergency Care
Authors: Henry MK, Egbe TI, White AM, Servaes S, Andronikou S, Scribano PV, Wood JN