

Prevalence of Sleep Environment Risk Factors for Sudden Infant Death: A Population-Based Study

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Background

Manitoba's College of Physicians and Surgeons has conducted in-depth reviews of all infant deaths since 1976. Deaths due to Sudden Infant Death Syndrome (SIDS) have steadily declined since the early 1990s, likely related to Back to Sleep campaigns. However with this decline there is an increasing proportion of sudden unexplained infant deaths (SUID) with significant risk factors in the sleep environment, including "unsafe sleeping locations" such as sofas and beds, co-sleeping, and soft or excessive bedding.

Objective

To estimate the prevalence of sleep environment risk factors for sudden infant death in our province (population 1.2 million).



Methods

Sample

All deaths of infants less than one year of age with a cause of death of SIDS, SUID, or suffocation during sleep were examined for 2003-2005.

Data Sources

Data sources reviewed included medical records, police, child welfare, medical examiner, and autopsy reports. All had complete autopsies performed, including metabolic screen, chemistry, toxicology, skeletal survey, microbiologic studies, and neuropathology consultation. Cases with another specified cause of death (e.g. pneumonia, foreign body) were excluded.

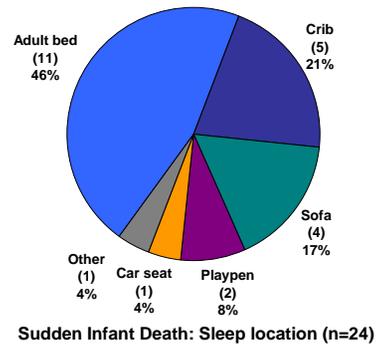
Variables

- Age
- Sex
- Place of residence
- Sleep location
- Presence, number, age of co-sleepers
- Position left/found
- Soft or excessive bedding
- Warm environment
- Drug and alcohol use
- Smoking in the home

Results

There were 24 cases identified between 2003 and 2005. The mean age was 17.2 weeks (SD 2.6, range 1.1 - 48.3 weeks). 71% were male.

- Causes of death were SUID (7), SIDS (5), suffocation (5)
- Eight infants (33%) were placed on their back to sleep (seven prone, three side)
- Co-sleeping (10) and soft bedding (11) were present in nearly half of cases



Only one infant was placed supine in a crib; all others were either not placed supine or not in a crib.

All infants sleeping on a couch were co-sleeping and six of those sleeping on an adult bed. Co-sleepers included one adult (4), two adults (4), one adult/one child (1), and two adults/one child (1). Two co-sleepers had been drinking alcohol.

Soft bedding was recorded in 11 cases, and soft/excessive bedding in three.

Smokers in the home were not common (3).

Conclusions

Over 95% of sudden infant deaths in our region had at least one significant risk factor in the sleep environment, with only one-third of infants placed to sleep supine and one-fifth placed to sleep in a crib. These findings indicate an ongoing need for parental education and reinforcement of safe sleep recommendations.

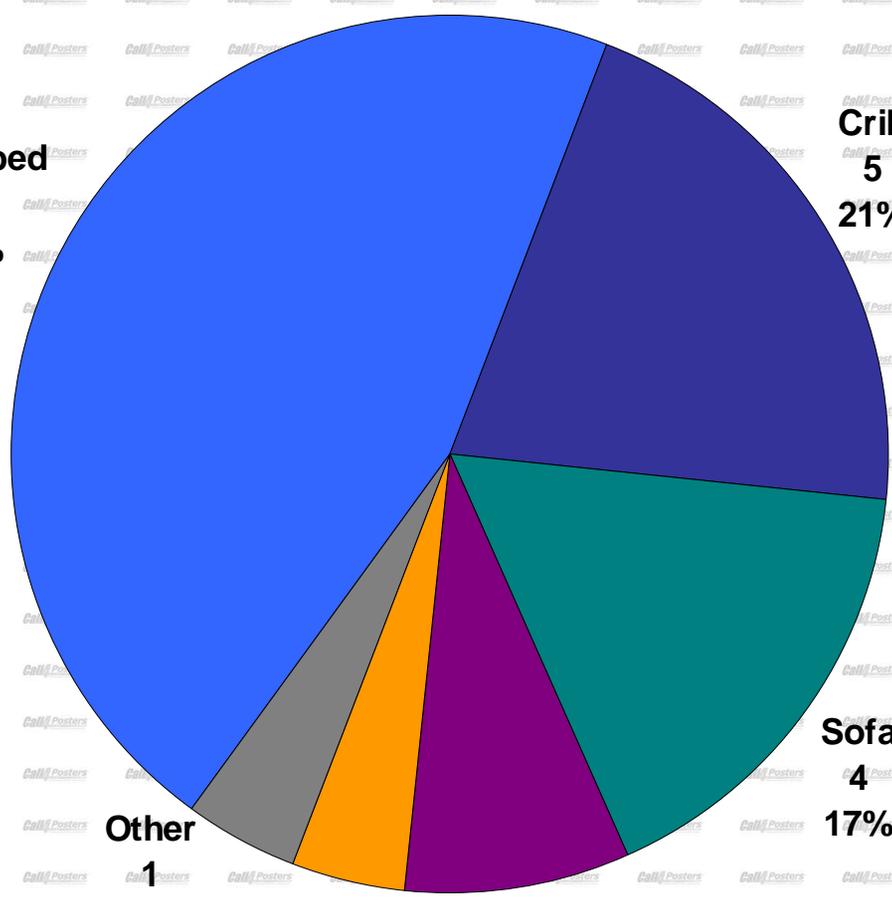


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Adult bed
11
46%

Crib
5
21%

Sofa
4
17%

Other
1
4%

Playpen
2
8%

Car seat
1
4%