

## ABM Protocols

# ABM Clinical Protocol #6: Guideline on Co-Sleeping and Breastfeeding

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THE ACADEMY OF BREASTFEEDING MEDICINE PROTOCOL COMMITTEE

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*A central goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.*

### INTRODUCTION

THE ACADEMY OF BREASTFEEDING MEDICINE is a worldwide organization of physicians dedicated to the promotion, protection, and support of breastfeeding and human lactation. One of the goals of the Academy of Breastfeeding Medicine is the facilitation of optimal breastfeeding practices. This clinical guideline addresses an aspect of parenting that has a significant impact on breastfeeding: infant sleep locations.

### BACKGROUND

The terms co-sleeping and bed sharing are often used interchangeably. However, bed sharing is only one form of co-sleeping. Co-sleeping, in reality, refers to the diverse ways in which infants sleep in close social and/or physical contact with a caregiver (usually the mother).<sup>1</sup> This operational definition includes an infant sleeping alongside a parent on a different piece of furniture/object as well as clearly unsafe prac-

tices such as sharing a sofa or recliner. Around the world the practice of co-sleeping can be very variable, and, as such, all forms of co-sleeping do not carry the same risks or benefits.<sup>2</sup> Some forms of parent-child co-sleeping provide physical protection for the infant against cold and extend the duration of breastfeeding, thus improving the chances of survival of the slowly developing human infant.<sup>1,3-5</sup> The human infant, relative to other mammals, develops more slowly, requires frequent feedings, and is born neurologically less mature.<sup>1,3-5</sup> In malaria settings, co-sleeping is recommended as the most efficient use of available bed-nets, and co-sleeping may be necessary in other geographic areas where available bedding or housing is inadequate. Bed sharing and co-sleeping have also long been promoted as a method to enhance parenting behavior or “attachment parenting” and also to facilitate breastfeeding.<sup>1-13</sup>

Bed sharing and some forms of co-sleeping have been rather controversial in the medical literature in recent years and have received considerable negative comment.<sup>6-10</sup> Some pub-

lic health authorities have discouraged all parents from bed sharing.<sup>11,12</sup>

## BED SHARING AND INFANT MORTALITY

The concerns regarding the bed sharing and increased infant mortality have been centered around mechanical suffocation (asphyxiation) and sudden infant death syndrome (SIDS) risks.

### *Asphyxiation risk*

Several studies using *unverified death certificate* diagnoses concluded that a significant number of infants were asphyxiated as they slept in unsafe sleep environments caused by either accidental entrapment in the sleep surface or overlying by a sleeping adult or older child.<sup>6–10</sup> The U.S. Consumer Product Safety Commission (USCPSC), using data from some of these studies, has made recommendations against the use of all types and forms of co-sleeping and advised parents against sleeping with their infants under any circumstances. The USCPSC is concerned about the absence of infant safety standards for adult beds and the hazards that may result from an infant sleeping in an unsafe environment.<sup>11</sup> All of these studies lack data on the state of intoxication of the co-sleeping adult (drugs or alcohol) and fail to consider the sleep position of the baby at time of death, even though prone sleep position appears to be one of the most significant risk factors for SIDS. The Commission also groups all bed sharing into one category, not separating known unsafe sleep environments such as sofas and couches, waterbeds, and upholstered chairs from other, safer sleep surfaces. In these studies, there is no assurance of the quality of the data collection, no consistency in the criteria employed in using the term “overlay,” and no validation of the conclusions. Bias by medical examiners and coroners may lead them to classify infant deaths that occur in an adult bed, couch, or chair in the presence of an adult as a rollover death even where there is no evidence that an actual overlay occurred. This is especially a problem in the absence of a

death scene examination and detailed interviews of those present at the time of death. There is no autopsy method to differentiate between death caused by SIDS versus death from accidental or intentional causes such as infant homicide by pillow smothering. Thus, infant deaths that occur in a crib are usually designated as SIDS, whereas deaths in a couch or adult bed are usually labeled as smothering. Further complicating analyses of infant deaths is the diversity of bed-sharing behaviors among different populations and even within the same families (i.e., bed sharing during the day vs. at night or when a baby is ill vs. when a baby is well), suggesting different levels of risk. A home visit study of families considered to be at high risk for SIDS because of socioeconomic status found that those bed sharing were more likely to place infants in the prone position and to use softer bed surfaces.<sup>14</sup> Similarly, a population-based retrospective review found that “Bed-sharing subjects who breastfed had a risk profile distinct from those who were not breastfed cases. Risk and situational profiles can be used to identify families in greater need of early guidance and to prepare educational content to promote safe sleep.”<sup>15</sup>

### *SIDS prevention and risk*

Several epidemiological studies and a meta-analysis have found a significant association between breastfeeding and a lowered SIDS risk, especially when breastfeeding was the exclusive form of feeding during the first 4 months of life.<sup>16,17</sup>

However, there is insufficient evidence at this time to show a causal link between breastfeeding and the prevention of SIDS. Several studies have consistently demonstrated an increased risk of SIDS when infants bed share with mothers who smoke cigarettes.<sup>2,18–24</sup> Exposure to cigarette smoke as a fetus and in infancy appears to contribute to this risk and is independent of other known risk factors, including social class. This has led to the recommendation, which is well supported in the medical literature, that infants not bed share with parents who smoke. A large meta-analysis, after review of over 40 studies, concluded that, “Evidence consistently suggests that there

may be an association between bed sharing and sudden infant death syndrome (SIDS) among smokers (however defined), but the evidence is not as consistent among nonsmokers. This does not mean that no association between bed sharing and SIDS exists among nonsmokers, but that existing data do not convincingly establish such an association."<sup>25</sup>

### ETHNIC DIVERSITY

The rates of SIDS deaths are low in Asian cultures in which co-sleeping is common. However, some argue that co-sleeping in these cultures is different from the bed sharing that occurs in the United States. As Blair and colleagues note in their study, "A baby sleeping at arm's length from the mother on a firm surface, as is often the case in Hong Kong, or a Pacific Island baby sleeping *on* the bed rather than *in* the bed is in a different environment from a baby sleeping in direct contact with the mother on a soft mattress and covered by a thick duvet."<sup>2</sup> Similarly, even within the United States there seems to be variation in bed-sharing practices based on ethnicity and race. A large, prospective study using multivariate analysis of bed sharing found that race or ethnicity appears to have the strongest association with bed sharing at all follow-up periods, with black, Asian, and Hispanic mothers four to six times more likely to bed share than white mothers.<sup>26</sup>

In a study in Alaska, where there is a high rate of co-sleeping among Alaskan Native people, researchers found that almost all SIDS deaths associated with parental bed sharing occurred in conjunction with a history of parental drug use and occasionally in association with prone sleep position or sleeping on surfaces such as couches or waterbeds.<sup>27</sup> A study using the PRAMS (Pregnancy Risk Assessment Monitoring System) data set in Oregon found that "The women most likely to bed share are non-white, single, breastfeeding and low-income. Non-economic factors are also important, particularly among blacks and Hispanics. Campaigns to decrease bed sharing by providing cribs may have limited effectiveness if mothers are bed sharing because of cultural norms."<sup>27</sup>

### CONTROLLED LABORATORY STUDIES

McKenna and colleagues have studied bed sharing in the greatest scientific detail in a laboratory setting and have found that infants who shared a bed with the mother had more sleep arousals and spent less time in Stage 3 and 4 sleep. This may be protective against SIDS since deep sleep and infrequent arousals have been considered as possible risk factors for SIDS.<sup>3,28,29</sup>

A similar study that was conducted in the natural physical environment of home instead of a sleep lab "compared the 2 different sleep practices of bed sharing and cot sleeping quantifying factors that have been identified as potential risks or benefits. Overnight video and physiologic data of bed-share infants and cot-sleep infants were recorded in the infants' own homes."<sup>30</sup> This study concluded that "Bed-share infants without known risk factors for sudden infant death syndrome (SIDS) experience increased maternal touching and looking, increased breastfeeding, and faster and more frequent maternal responses."<sup>30</sup> This increased interaction between mothers and babies may be protective.

### PARENTAL FACTORS

The contribution of other parental factors to the risk of bed sharing is unclear. Blair and colleagues found in a multivariate analysis that maternal alcohol consumption of more than two drinks (one drink = 12 oz beer, 5 oz wine, or 1.5 oz distilled alcohol) and parental tiredness were associated with sudden infant death.<sup>2</sup> A study in New Zealand, however, did not show a clear link with alcohol consumption.<sup>21</sup> The role of obesity was examined in one study of SIDS cases. They found the mean pre-gravid weights of bed-sharing mothers to be greater than those of non-bed-sharing mothers.<sup>7</sup>

If overlying is thought to be the mechanism of infant suffocation, it would seem plausible that the psychological and physical states of those sharing the bed with an infant could be of importance.

Room sharing with parents (infants sharing the same room as their parents as opposed to being in a separate room) appears to be protective against SIDS.<sup>2,31,32</sup>

## INFANT FACTORS

There is some evidence that bed sharing with younger babies <8–14 weeks may increase the risk of SIDS.<sup>2,31,32</sup>

## BREASTFEEDING AND BED SHARING

Research continues to show the strong relationship between breastfeeding and bed sharing/co-sleeping. A study of bed sharing and breastfeeding in the United States found that infants who routinely shared a bed with their mothers breastfed approximately three times longer during the night than infants who routinely slept separately. There was a twofold increase in the number of breastfeeding episodes, and the episodes were 39% longer.<sup>33</sup> Proximity to and sensory contact with the mother during sleep facilitates prompt responses to signs of the infant's readiness to breastfeed and provides psychological comfort and reassurance to the dependent infant as well as the parents. A large prospective study of more than 10,000 infants in the United State found that up to 22% of 1-month-old infants were bed sharing and that breastfeeding mothers were three times more likely to bed share than mothers who did not breastfeed. Ninety-five percent of infants who shared a bed did so with a parent.<sup>26</sup> Similarly, a study of parent-infant bed sharing in England found that "Breast feeding was strongly associated with bed-sharing, both at birth and at 3 months."<sup>34</sup>

Based on the above information and literature, the Academy of Breastfeeding Medicine has the following recommendations for health-care providers.

## RECOMMENDATIONS

- A. Because breastfeeding is the best form of nutrition for infants, any recommendations for infant care that impede its initiation or duration need to be carefully weighed against the many known benefits to infants, their mothers, and society.
- B. It should not be assumed that all families are practicing only one sleeping arrange-

ment all night every night and during the daytime as well. Healthcare providers should consider ethnic, socioeconomic, feeding, and other family circumstances when obtaining a history on infant sleep practices.<sup>2,14,15</sup>

- C. Parents need to be encouraged to express their views and to seek information and support from their healthcare providers. Sensitivity to cultural differences is necessary when obtaining sleep histories.
- D. There is currently not enough evidence to support routine recommendations against co-sleeping. Parents should be educated about risks and benefits of co-sleeping and unsafe co-sleeping practices and should be allowed to make their own informed decision.

Bed sharing/co-sleeping is a complex practice. Parental counseling about infant sleep environments should include the following information:

1. Some potentially unsafe practices related to bed sharing/co-sleeping have been identified either in the peer-reviewed literature or as a consensus of expert opinion:
  - Environmental smoke exposure and maternal smoking<sup>2,18–25</sup>
  - Sharing sofas, couches, or daybeds with infants<sup>2,8–12</sup>
  - Sharing waterbeds or the use of soft bedding materials<sup>6,8–12</sup>
  - Sharing beds with adjacent spaces that could trap an infant<sup>6,8–12</sup>
  - Placement of the infant in the adult bed in the prone or side position<sup>6,8–12</sup>
  - The use of alcohol or mind-altering drugs by the adult(s) who is bed sharing<sup>2</sup>
  - Infants bed sharing with other children<sup>12</sup>
  - Bed sharing with younger babies <8–14 weeks of age may be more strongly associated with SIDS.<sup>2,7,25,31,32</sup>
2. Families also should be given all the information that is known about safe sleep environments for their infants, including:
  - Place babies in the supine position for sleep.<sup>12</sup>
  - Use a firm, flat surface and avoid waterbeds, couches, sofas, pillows, soft materials, or loose bedding.<sup>6,8–12</sup>

- If blankets are to be used, they should be tucked in around the mattress so that the infant's head is less likely to be covered.<sup>12</sup>
- Ensure that the head will not be covered. In a cold room the infant could be kept in an infant sleeper to maintain warmth.<sup>6,8-12</sup>
- Avoid the use of quilts, duvets, comforters, pillows, and stuffed animals in the infant's sleep environment.<sup>6,8-12</sup>
- Never put an infant down to sleep on a pillow or adjacent to a pillow.<sup>6,8-12</sup>
- Never leave an infant alone on an adult bed.<sup>6,8-12</sup>
- Inform families that adult beds have potential risks and are not designed to meet federal safety standards for infants.<sup>6,8-12</sup>
- Ensure that there are no spaces between the mattress and headboard, walls, and other surfaces, which may entrap the infant and lead to suffocation.<sup>6,8-12</sup>
- Placement of a firm mattress directly on the floor away from walls may be a safe alternative. Another alternative to sharing an adult bed or sharing a mattress is the use of an infant bed that attaches to the side of the adult bed and provides proximity and access to the infant but a separate sleep surface. There are currently no peer-reviewed studies on the safety or efficacy of such devices.
- Room sharing with parents appears to be protective against SIDS.<sup>2,12,31,32</sup>

### RECOMMENDATIONS FOR FUTURE RESEARCH

- A. The Academy of Breastfeeding Medicine urges that more research be undertaken so that the benefits and risks of co-sleeping and bed sharing and their association with breastfeeding can be better understood.
- B. Researchers should employ well-designed, impartial, prospective protocols with standardized, well-defined data collection methods. Control data for comparison are an essential part of such research. Studies should be population based, so that actual risk of sudden infant death and overlying smothering due to bed sharing or co-sleeping can be computed. A denominator is needed for calculation of risk and for comparison with

a population not practicing co-sleeping or bed sharing. In the final analysis, it is critical that dangerous, modifiable "factors" associated with bed sharing not be considered the same as bed sharing itself.

- C. The diversity of bed sharing/co-sleeping practices among the different ethnic groups in the United States and throughout the world needs to be carefully considered and documented as part of research protocols.
- D. Continuing study of the impact of co-sleeping on infant behavior, SIDS, and breast-feeding is essential.

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- ABM protocols expire five years from the date of publication. Evidence-based revisions are made within five years, or sooner if there are significant changes in the evidence.

## Contributors

\*Rosha McCoy, M.D., FABM

\*James J. McKenna, Ph.D.

\*Lawrence Gartner, M.D., FABM

## Protocol Committee

Caroline J. Chantry, M.D., FABM,

Co-Chairperson

Cynthia R. Howard, M.D., FABM,

Co-Chairperson

Ruth A. Lawrence, M.D., FABM

Kathleen A. Marinelli, M.D., FABM,

Co-Chairperson

Nancy G. Powers, M.D., FABM

\*Lead author

For reprint requests: abm@bfmed.org