Sudden infant death syndrome (SIDS) is the foremost cause of death among infants 1 to 12 months of age. Although the overall rate of SIDS in the United States has decreased by more than 50% since 1990 (Centers for Disease Control and Prevention [CDC], 2012), a corresponding increase has occurred in sudden unexpected infant deaths (SUIDs) – infant deaths resulting from suffocation and other factors related to the infant’s sleep environment (Schnitzer, Covington, & Dykstra, 2012). Reducing infant deaths from SIDS and SUIDs is a top priority of pediatric nurses. It is therefore imperative for nurses and other health care providers who work with children to be up to date with current recommendations when educating and counseling families about safe infant sleep.

The first definition for SIDS was published in 1970 as “the sudden death of any infant or young child which is unexpected by history, and in which a thorough post-mortem examination fails to demonstrate an adequate cause of death” (Beckwith, 1970, p. 18). Subsequent modifications of the definition included an age limit and death scene investigation requirement (Willinger, James, & Catz, 1991). Though no single definition is universally accepted, the most-used version now identifies SIDS as “the sudden death of an infant under 1 year of age, which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history” (Willinger et al., 1991, p. 681).

SIDS falls under the umbrella term of “sudden and unexpected infant death (SUID),” which is used to describe any sudden and unexpected death of an infant, whether explained or unexplained (American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome [AAPTF-SIDS], 2011, p. 1030). Although SIDS, by definition, remains an unexplained infant death accounting for approximately 80% of all SUIDS cases (Kinney & Thach, 2009), other explained causes of infant death also fall under this term. Other causes include, but are not limited to, death due to suffocation, asphyxia, entrapment, infection, ingestions, metabolic diseases, and trauma (AAPTF-SIDS, 2011).

In 1988, before the AAP released its first policy statement citing recommendations for the supine sleep position, the mortality rate for infants as a result of SIDS in the United States was 1.4 deaths per 1,000 live births (MacDorman & Rosenberg, 1993). In 1992, the AAP evaluated the growing body of literature from Australia, Europe, and New Zealand, indicating the prone sleeping position was associated with a higher incidence of SIDS and recommended that all healthy infants should be positioned on their backs for sleep (AAP Task Force on Infant Positioning and SIDS, 1992). The recommendation that all healthy infants be put down to sleep in a non-prone position led to a slight decrease in infant mortality due to SIDS in 1993, but it was the “Back to Sleep Campaign” initiated in 1994 that is credited with reducing the SIDS rate to 0.55 infant deaths due to SIDS per 1,000 live births as of 2006 (Heron et al., 2010).

“Back To Sleep” Campaign

The 1994 “Back to Sleep” Campaign began as a way to educate parents, caregivers, and health care providers about the new recommendation to place infants in a supine sleeping position (National Institute of Child Health and Human Development [NICHD], 2011). Since the inception of the Back to Sleep Campaign, the number of infants being placed to sleep in a supine position has risen to 75.7% as of 2006, and overall SIDS rates have decreased over 50% since 1988 (NICHD, 2011). Despite the initial success of the Back to Sleep Campaign, the number of infants being placed to sleep in a supine position reached a plateau in 2001 (Colson et al., 2009). Recent research has shown that of 3,136 infant deaths resulting from SIDS or SUIDs, only 25% of infants were sleeping in a crib or on their backs when they were found; nearly 70% were on a surface not intended for infant sleep, such as an adult bed, and approximately 64% of infants were sharing a sleep surface (Schnitzer et al., 2012).
Expanded “Back to Sleep” Recommendations

In 2011, the AAP expanded the “Back to Sleep” recommendations to address other causes of sleep-related deaths, including suffocation, asphyxia, and entrapment. The 2011 recommendations have expanded the focus to include recommendations for safe infant sleep environments that diminish the risk of all sleep-related infant deaths. These include recommendations to prevent additional risks for SUIDs, whether explained or unexplained, and to address three specific risks related to sleep: suffocation, asphyxia, and entrapment (AAPTFSIDS, 2011).

The 2011 document contains 18 recommendations for healthy infants up to 1 year of age. Individual medical conditions may warrant additional considerations (see Figure 1 for a summary of the 18 recommendations).

The AAPTFSIDS (2011) recommendations reinforce prior recommendations that infants should be placed only on their backs for sleep to decrease the incidence of SIDS and other sleep-related deaths. Infants should be placed “back to sleep for every sleep” (p. 1031) in the supine position – wholly on backs – not on their sides. It is reinforced that the supine sleep position does not increase the risk of choking and aspiration, even in infants with gastroesophageal reflux (GER). Elevation of the head of the bed, even in infants with GER, is not recommended (Tablizo et al., 2007). If a medical condition, such as laryngeal cleft, exists and places an infant at higher risk for death than SIDS, those infants may be placed in a prone position for sleep. Pre-term infants and other infants in neonatal intensive care units (NICU) should be positioned in the supine position as soon as they are medically stable – and by 32 weeks post-menstrual age. Infants should be placed on their backs until they are 1 year of age, but they may be allowed to remain in the sleep position that they assume. For instance, if a 6-month-old infant is placed on her back to sleep but rolls to her stomach during the course of the night, she should be allowed to remain in that position; there is no need to reposition her onto her back (AAPTFSIDS, 2011).

The second recommendation concerns sleep environments. If the infant is placed to sleep in a crib, a firm crib mattress should be used that is covered by a fitted sheet. Parents and caregivers should ensure that the crib has not been recalled by checking the manufacturer’s Web site or by checking the United States Consumer Product Safety Commission (2012) Web site. Soft materials, even if covered by a sheet, should not be placed in the crib under a sleeping infant. Infants should not be placed to sleep on child or adult beds due to the increased risk or entrapment or suffocation. Bedrails, other than those on approved infant cribs, should not be used due to a risk of entrapment. The sleep area should be kept free from dangling cords, window-covering cords, or electrical wires to prevent possible strangulation. Sitting devices, such as car seats, strollers, and swings, are not recommended for routine sleep. If a baby is being carried in a sling, it is essential that the head and face be visible, and that the infant’s nose and mouth are clear of obstructions (AAPTFSIDS, 2011).

The new recommendations by the AAP encourage parents/caregivers to room-share with a newborn infant without bed sharing to decrease the risk of SIDS. In-bed co-sleeping devices are not recommended. Bed sharing should be avoided at all times in infants younger than 3 months; when sleeping on a soft surface, such as a waterbed, sofa, or old mattress, and with anyone who is not a parent, including other children. Co-bedding of twins should be avoided. Bed sharing should be avoided especially with someone who is a current smoker, someone who is excessively tired, or someone using drugs, alcohol, or other substances that affect alertness or ability to arouse.

The fourth recommendation advises that soft objects and loose bedding be removed from the crib. Objects such as quilts, bumper pads, comforters, and blankets should be removed from the infant’s sleeping environment. Clothing designed to keep the infant warm without covering the head (such as a sleep sac) can be used.

Recommendations 5 through 8 refer to prenatal care and mothers’ behaviors that may reduce the risk of SIDS. Pregnant women should receive regular prenatal care because evidence has shown lower SIDS risk in mothers who obtain regular prenatal care (Getahun, Amre, Rhoads, & Demissie, 2004). Mothers should avoid smoke exposure during pregnancy and after birth because maternal smoking has been associated with an increased risk of SIDS (Liebrechts-Akkerman et al., 2011). Mothers are encouraged to set strict rules for a smoke-free home and eliminate second-hand tobacco smoke from all places where the infant spends time. Breastfeeding is encouraged because breastfeeding has been associated with a reduced risk of SIDS (Hauck, Thompson, Tanabe, Moon, & Venneman, 2011).

The ninth recommendation states that caregivers should consider offering a pacifier at naptime and at bedtime. For infants who are breastfed, pacifier introduction should be delayed until breastfeeding is firmly established (3 to 4 months of age).
weeks). Research has shown that pacifiers have a protective effect on the incidence of SIDS (Hauck, Herman, & Donovan, 2003). This protective effect has been noted to persist throughout sleep, even if the pacifier falls out during sleep. Infants should not be forced to take a pacifier, and the pacifier should never be hung around the infant’s neck. Pacifiers that attach to clothing should not be used when the infant is sleeping, and objects such as stuffed toys or blankets should not be attached to pacifiers to attempt to hold them in place. There is no evidence in the literature that finger sucking has the same protective value as the pacifier against SIDS.

Parents and caregivers should avoid overheating of the infant because there is an increased risk of SIDS with overheating (Iyasu, Randall, & Welty, 2002). APTTFSIDS (2011) recognizes there is no standard definition of overheating but notes that over-bundling and covering the face and head should be avoided. In general, babies need only one additional layer of clothing or blankets than adults to maintain their core body temperature.

The 11th recommendation stresses that infants should be immunized according to recommendations from the AAP (2011) and CDC (2012). The AAP notes that there is no causal evidence of a link between SIDS and immunizations, and evidence suggests that immunizations may have a protective effect against SIDS (Fleming et al., 2001). The recommendations also state that infants should be seen regularly for well-child care (APTFTSIDS, 2011).

Commercial marketing devices to reduce SIDS should be avoided (Recommendation #12). There is no evidence that wedges, positioners, special mattresses, and special sleep surfaces reduce the risk of SIDS or that they are safe. The 13th recommendation implores parents and caregivers not to use home cardiorespiratory monitors as a strategy to reduce SIDS because no evidence exists that routine use of such devices decreases the incidence of SIDS (Ramanathan, Corwin, & Hunt, 2001). The APTFTSIDS (2011) also notes there is no evidence that routine in-hospital cardiorespiratory monitoring before discharge can identify infants at risk for SIDS.

Supervised, awake tummy time is recommended for infants to assist development and to minimize developmental plagiocephaly (Recommendation #14). Daily tummy time is recommended beginning as early as possible to promote motor development, facilitate development of the upper body muscles, and minimize the risk of positional plagiocephaly. The guidelines do not provide recommendations for how often and how long infants should have tummy time (APTFTSIDS, 2011).

Recommendation #15 states that health care professionals, staff in the NICU and newborn nurseries, and child care providers should endorse and implement the SIDS risk reduction recommendations from birth. Specifically, staff in NICUs should model and implement all SIDS risk reduction recommendations as soon as the infant is clinically stable and before anticipated discharge. Further, health care professionals should receive education on the new recommendations so they can advise parents and caregivers of the most current guidelines for safe infant sleep (APTFTSIDS, 2011).

The 16th recommendation states that the media and manufacturers should follow safe-sleep guidelines in their messaging and advertising. Media exposures and manufacturer advertisements affect parent behavior by influencing beliefs and attitudes. Messages differing from the safe sleep recommendations create misinformation about safe sleep practices and put infants at risk for sleep-related deaths (APTFTSIDS, 2011).

Expanding the national campaign to reduce the risk of SIDS, promoting safe sleep environments, and decreasing all sleep-related infant deaths are the goals of Recommendation #17. Public education should include strategies for overcoming barriers to behavior change. The campaigns should specifically include recommendations for increasing breastfeeding, decreasing bed sharing, and eliminating exposure to environmental tobacco smoke. Because of the higher incidence of SIDS and other sleep-related deaths in certain populations, it is suggested that the education campaign should have a special focus on African-American and American-Indian populations.

The final recommendation states that information regarding safe sleep environments should be introduced before pregnancy and ideally in the secondary school curriculum for boys and girls. Additionally, it is advised that safe sleep messages should be reviewed, revised, and re-issued at least every five years to address the changing evidence of practice and the subsequent generation of new parents and products on the market. Lastly, it is recommended that there be continued research (funded both federally and privately) and surveillance on the risk factors, causes, and pathophysiological mechanisms of SIDS and other sleep-related infant deaths.

Implications for Nurses

Pediatric nurses are in an ideal position to promote the new safe sleep guidelines set forth by the AAP. Nurses in a variety of settings, such as the NICU, outpatient clinics, and primary care clinics, as well as visiting nurses, should educate parents and caregivers about safe sleep environments for infants less than 1 year of age. Nurses can join with caregivers and other professionals to implement the new recommendations, with the ultimate goal of eliminating SUID-related to sleep in infants under 1 year of age.

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References


Primary Care Approaches

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