Complete Summary

GUIDELINE TITLE

The changing concept of sudden infant death syndrome: diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk.

BIBLIOGRAPHIC SOURCE(S)

American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome. The changing concept of sudden infant death syndrome: diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk. Pediatrics 2005 Nov;116(5):1245-55. [137 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

It updates a previously published version: American Academy of Pediatrics, Task Force on Infant Sleep Position and Sudden Infant Death Syndrome. Changing concepts of sudden infant death syndrome: implications for infant sleeping environment and sleep position. American Academy of Pediatrics. Task Force on Infant Sleep Position and Sudden Infant Death Syndrome. Pediatrics 2000 Mar;105(3 Pt 1):650-6. [120 references]

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** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Sudden infant death syndrome (SIDS [also called crib or cot death])

GUIDELINE CATEGORY

Prevention
Risk Assessment

CLINICAL SPECIALTY

Family Practice
Pediatrics

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To endorse elements from the previous statement on sudden infant death syndrome (SIDS) from the American Academy of Pediatrics that have not changed, to include information about recent research, and to present updated recommendations based on current evidence

TARGET POPULATION

Infants under 1 year of age, especially infants between 2 and 4 months old

INTERVENTIONS AND PRACTICES CONSIDERED

1. Placing infant to sleep in a supine position (i.e., wholly on the back)
2. Use of safe bedding practices (crib that conforms to safety standards, use of firm sleep surface, avoidance of soft materials, objects, and loose bedding in the infant's sleep environment)
3. Use of proximate but separate sleeping environment
4. Avoidance of overheating
5. Consideration of use of a pacifier for sleep and nap times

6. Avoidance of plagiocephaly (use of prone positioning when awake [tummy time], altering supine head position during sleep, avoidance of excessive time in car seat carrier and "bouncers")
7. Promotion of smoking cessation during pregnancy and the prevention of exposure of the infant to second hand smoke
8. Use of electronic respiratory and cardiac monitors only for infants with extreme cardiorespiratory instability
9. Continuation and expansion of campaigns (e.g., Back to Sleep) to promote safe sleeping practices and to reduce potentially modifiable risk factors for sudden infant death syndrome (with special focus on black, American Indian/Alaska Native populations)

The use of devices to maintain sleep position and reduce risk of rebreathing and the use of electronic respiratory and cardiac monitors (except in infants with extreme cardiorespiratory instability) were considered, but not recommended.

MAJOR OUTCOMES CONSIDERED

Incidence of sudden infant death syndrome

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review
Review of Published Meta-Analyses

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

1. Back to sleep: Infants should be placed for sleep in a supine position (wholly on the back) for every sleep. Side sleeping is not as safe as supine sleeping and is not advised.
2. Use a firm sleep surface: Soft materials or objects such as pillows, quilts, comforters, or sheepskins should not be placed under a sleeping infant. A firm crib mattress, covered by a sheet, is the recommended sleeping surface.
3. Keep soft objects and loose bedding out of the crib: Soft objects such as pillows, quilts, comforters, sheepskins, stuffed toys, and other soft objects should be kept out of an infant's sleeping environment. If bumper pads are used in cribs, they should be thin, firm, well secured, and not "pillow-like." In addition, loose bedding such as blankets and sheets may be hazardous. If blankets are to be used, they should be tucked in around the crib mattress so that the infant's face is less likely to become covered by bedding. One strategy is to make up the bedding so that the infant's feet are able to reach the foot of the crib (feet to foot), with the blankets tucked in around the crib mattress and reaching only to the level of the infant's chest. Another strategy is to use sleep clothing with no other covering over the infant or infant sleep sacks that are designed to keep the infant warm without the possible hazard of head covering.
4. Do not smoke during pregnancy: Maternal smoking during pregnancy has emerged as a major risk factor in almost every epidemiologic study of sudden infant death syndrome (SIDS). Smoke in the infant's environment after birth has emerged as a separate risk factor in a few studies, although separating

this variable from maternal smoking before birth is problematic. Avoiding an infant's exposure to second-hand smoke is advisable for numerous reasons in addition to SIDS risk.

5. A separate but proximate sleeping environment is recommended: The risk of SIDS has been shown to be reduced when the infant sleeps in the same room as the mother. A crib, bassinet, or cradle that conforms to the safety standards of the Consumer Product Safety Commission and ASTM (formerly the American Society for Testing and Materials) is recommended. "Cosleepers" (infant beds that attach to the mother's bed) provide easy access for the mother to the infant, especially for breastfeeding, but safety standards for these devices have not yet been established by the Consumer Product Safety Commission.

   Although bed-sharing rates are increasing in the United States for a number of reasons, including facilitation of breastfeeding, the task force concludes that the evidence is growing that bed sharing, as practiced in the United States and other Western countries, is more hazardous than the infant sleeping on a separate sleep surface and, therefore, recommends that infants not bed share during sleep. Infants may be brought into bed for nursing or comforting but should be returned to their own crib or bassinet when the parent is ready to return to sleep. The infant should not be brought into bed when the parent is excessively tired or using medications or substances that could impair his or her alertness. The task force recommends that the infant's crib or bassinet be placed in the parents' bedroom, which, when placed close to their bed, will allow for more convenient breastfeeding and contact. Infants should not bed share with other children. Because it is very dangerous to sleep with an infant on a couch or armchair, no one should sleep with an infant on these surfaces.

6. Consider offering a pacifier at nap time and bedtime: Although the mechanism is not known, the reduced risk of SIDS associated with pacifier use during sleep is compelling, and the evidence that pacifier use inhibits breastfeeding or causes later dental complications is not. Until evidence dictates otherwise, the task force recommends use of a pacifier throughout the first year of life according to the following procedures:
   - The pacifier should be used when placing the infant down for sleep and not be reinserted once the infant falls asleep. If the infant refuses the pacifier, he or she should not be forced to take it.
   - Pacifiers should not be coated in any sweet solution.
   - Pacifiers should be cleaned often and replaced regularly.
   - For breastfed infants, delay pacifier introduction until 1 month of age to ensure that breastfeeding is firmly established.
7. Avoid overheating: The infant should be lightly clothed for sleep, and the bedroom temperature should be kept comfortable for a lightly clothed adult. Overbundling should be avoided, and the infant should not feel hot to the touch.
8. Avoid commercial devices marketed to reduce the risk of SIDS: Although various devices have been developed to maintain sleep position or to reduce the risk of rebreathing, none have been tested sufficiently to show efficacy or safety.
9. Do not use home monitors as a strategy to reduce the risk of SIDS: Electronic respiratory and cardiac monitors are available to detect cardiorespiratory

arrest and may be of value for home monitoring of selected infants who are deemed to have extreme cardiorespiratory instability. However, there is no evidence that use of such home monitors decreases the incidence of SIDS. Furthermore, there is no evidence that infants at increased risk of SIDS can be identified by in-hospital respiratory or cardiac monitoring.

10. Avoid development of positional plagiocephaly:
    - Encourage "tummy time" when the infant is awake and observed. This will also enhance motor development.
    - Avoid having the infant spend excessive time in car-seat carriers and "bouncers," in which pressure is applied to the occiput. Upright "cuddle time" should be encouraged.
    - Alter the supine head position during sleep. Techniques for accomplishing this include placing the infant to sleep with the head to one side for a week and then changing to the other and periodically changing the orientation of the infant to outside activity (e.g., the door of the room).
    - Particular care should be taken to implement the aforementioned recommendations for infants with neurologic injury or suspected developmental delay.
    - Consideration should be given to early referral of infants with plagiocephaly when it is evident that conservative measures have been ineffective. In some cases, orthotic devices may help avoid the need for surgery.
11. Continue the Back to Sleep campaign: Public education should be intensified for secondary care-givers (child care providers, grandparents, foster parents, and babysitters). The campaign should continue to have a special focus on the black and American Indian/Alaska Native populations. Health care professionals in intensive care nurseries, as well as those in well-infant nurseries, should implement these recommendations well before an anticipated discharge.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting each recommendation is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Prevention of sudden infant death syndrome

POTENTIAL HARMS

Pacifier use may be associated with an increased risk of otitis media, gastrointestinal infections, and oral colonization with Candida species.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

The recommendations outlined here were developed to reduce the risk of sudden infant death syndrome (SIDS) in the general population. As it is defined by epidemiologists, risk refers to the probability that an outcome will occur given the presence of a particular factor or set of factors. Scientifically identified associations between risk factors (e.g., socioeconomic characteristics, behaviors, or environmental exposures) and outcomes such as SIDS do not necessarily denote causality. Furthermore, the best current working model of SIDS suggests that more than 1 scenario of preexisting conditions and initiating events may lead to SIDS. Therefore, when considering the recommendations in this report, it is fundamentally misguided to focus on a single risk factor or to attempt to quantify risk for an individual infant. Individual medical conditions may warrant a physician to recommend otherwise after weighing the relative risks and benefits.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2000 Mar (revised 2005 Nov)

GUIDELINE DEVELOPER(S)

American Academy of Pediatrics - Medical Specialty Society

SOURCE(S) OF FUNDING

American Academy of Pediatrics

GUIDELINE COMMITTEE

Task Force on Sudden Infant Death Syndrome

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Task Force on Sudden Infant Death Syndrome, 2005-2006: John Kattwinkel, MD, *Chairperson*; Fern R. Hauck, MD, MS; Maurice E. Keenan, MD; Michael Malloy, MD, MS; Rachel Y. Moon, MD

Consultant: Marian Willinger, PhD

Staff: James Couto

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

ENDORSER(S)

Association of SIDS and Infant Mortality Programs - Professional Association
National Institute of Child Health and Human Development - Federal Government Agency [U.S.]
SIDS Alliance - Professional Association

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GUIDELINE AVAILABILITY

Electronic copies: Available from the American Academy of Pediatrics (AAP) Policy Web site.

Print copies: Available from AAP, 141 Northwest Point Blvd., P.O. Box 927, Elk Grove Village, IL 60009-0927.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Do pacifiers reduce the risk of sudden infant death syndrome? A meta-analysis. American Academy of Pediatrics. Pediatrics 2005 Nov;116(5):e716-23.

Electronic copies: Available from the *Pediatrics* Web site.

Print copies: Available from AAP, 141 Northwest Point Blvd., P.O. Box 927, Elk Grove Village, IL 60009-0927.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on September 17, 2001. The information was verified by the guideline developer as of December 5, 2001. This NGC summary was updated by ECRI on November 15, 2005. The updated information was verified by the guideline developer on November 29, 2005.

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