10 CARE OF NEONATE

10.2 ROUTINE CARE OF THE NEONATE IN THE WARD

10.2.5 STRATEGIES TO REDUCE SUDDEN INFANT DEATH SYNDROME (SIDS)

10.2.5.1 BED-SHARING / CO-SLEEPING

Bed sharing / co-sleeping clinical guidelines should be read in conjunction with ‘Strategies to reduce sudden infant death syndrome’, namely: sleep in the supine position, promote a smoke free environment, do not let baby get overheated, sleep baby with face uncovered, and ensure that items such as soft toys and bumpers are removed from the cot.

Maternity staff play a key role in promoting a safe sleeping environment. Information needs to be consistent between hospital, the home and the community. Please ensure that a written information sheet is given to all women regarding this policy.

AIMS OF THIS POLICY

- To ensure the safest possible sleeping environment for mothers and babies
- To reduce the risks of sudden unexpected infant death associated with bed-sharing in high risk situations
- To ensure that parents are provided with all the information required to make an informed choice, and for those who do choose to share a bed with their baby, to enable them to do so as safely as possible
- To be sensitive to the emotional, cultural and physical needs of the mother and her family
- To facilitate the successful implementation of the WHO/UNICEF Baby Friendly Initiative best practice standards for breastfeeding
- To encourage successful breastfeeding

DEFINITIONS

For the purpose of this document:¹

Co-sleeping refers to a mother or her partner/support person (or any other person) being asleep on the same sleep surface as the baby

Although the term bed-sharing is sometimes used to include sharing the sleep surface when the adult is awake, in the research literature, bed-sharing is used interchangeably with co-sleeping. To be consistent with the literature, this document will consider co-sleeping and bed-sharing to be the same, i.e. a baby sharing a sleep surface (bed, couch or other surface) with an adult when the adult is asleep.
BACKGROUND INFORMATION

SIDS and SUDI

SIDS is defined as the sudden and unexpected death of an infant under one year of age, where the onset of the lethal episode is apparently during sleep and the death remains unexplained after a thorough investigation (complete autopsy, review of the circumstances of death and clinical history). As SIDS rates have declined, there is more attention being paid to explained deaths, including infection, cardiac, metabolic, and particularly sleep accidents due to an unsafe sleep environment.

The term SUDI (Sudden and Unexpected Death of an Infant) includes both unexplained deaths (SIDS) and explained deaths.

THE CHANGING EPIDEMIOLOGY OF SIDS

It is a remarkable achievement that the number of SIDS deaths in Australia from the late 1980s has decreased by over 80%. Public education campaigns about risk factors for SIDS are thought to have contributed to this reduction, especially the factors of parental/smoking and baby sleeping in the prone position. The infant mortality rate due to SIDS has declined from 2.16 per 1000 in 1986 to 0.3 per 1000 in 2005.

There is still the potential to reduce the numbers of deaths further. Studies of SIDS show that co-sleeping is also a risk factor.

In the United Kingdom the incidence of SIDS has fallen by 75% since the “Back to Sleep” campaign in 1991. Over the past 20 years in the UK, while the actual number of SIDS deaths in the parental bed has halved (p=0.01), of the children who died from SIDS, the percentage who were co-sleeping with their parents has risen from 12% to 50% (p<0.0001). It appears that with a reduction in other known risk factors, especially maternal smoking, and prone sleeping position, the issue of co-sleeping has emerged as a relatively more important risk factor than previously realised.

RISKS AND BENEFITS OF CO-SLEEPING

“There is vehement debate regarding the merits as opposed to the dangers of infant parent bed-sharing”. The issue of bed-sharing or co-sleeping is an emotive and important area.

Within our culturally diverse community, bed-sharing is an accepted child care practice which is becoming more popular in mainstream Australia. In a small Australian study up to 80% of babies spent some time sharing a bed with one or two parents. For some parents, sharing a bed with their baby may be the only practical option. In other instances it is seen as necessary to protect the baby.

There are positive aspects of bed-sharing such as enhancing maternal-infant bonding. Parents who share a bed with their baby are able to respond immediately to their baby’s needs. Some research has shown that bed-sharing babies, experienced an increased level of maternal response through touching, looking and breastfeeding than cot sleeping infants. Relationships have been found between parent-infant bed sharing and successful breastfeeding, as well as prolonged duration of breastfeeding. Studies have also suggested long term benefits, with those who shared the parental bed as babies becoming adults with higher self esteem, and better social and emotional outcomes.

There are many advocates for breastfeeding and co-sleeping, however the evidence shows that there is a significantly increased risk of SIDS related to co-sleeping, especially in the presence of other SIDS risk factors. It is important to note there is evidence that room sharing (not co-sleeping) with an infant may reduce the risk of SIDS.

The Perinatal and Infant Mortality Committee of WA has noted that a number of infant deaths occurred in situations of co-sleeping, and has published a guideline about co-sleeping whilst breastfeeding. The Coroner in WA has also raised the issue.

The risk of SIDS in connection with co-sleeping is significantly increased by the other known risk factors for SIDS, such as:

- Sleeping in the prone position
• Antenatal and postnatal exposure to cigarette smoke\textsuperscript{4,10-12,14}
• Preterm/low birth weight babies\textsuperscript{11,17}
• Parental alcohol and drug use
• Soft sleep surfaces (e.g. beanbag or waterbed)\textsuperscript{13,18}. There is evidence that co-sleeping on a couch is of particularly high risk\textsuperscript{10,13}.

EVIDENCE ABOUT CO-SLEEPING AND SIDS

There have been many studies of co-sleeping and SIDS, where cases of SIDS have been compared with live controls and information obtained about the sleeping environment and other factors.

The most recent results are summarised in the table.

**Recent Case Control Studies of Co-Sleeping and SIDS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Authors</th>
<th>Location</th>
<th>Design</th>
<th>Sample size</th>
<th>Findings re bed-sharing and SIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Ruys et al</td>
<td>Netherlands</td>
<td>Case control</td>
<td>138 cases Population data from infant welfare clinics - 1628</td>
<td>Babies less than 4 months Age gradient: 9 fold risk in first month, 4 fold at 1-2 months and not significant from 3 months on (adjusted for smoking)</td>
</tr>
<tr>
<td>2006</td>
<td>Blair et al (five regions) Avon study</td>
<td>UK</td>
<td>Case control</td>
<td>325 cases 1300 controls</td>
<td>No excess risk from bed-sharing with non-smoking parents provided baby not preterm or less than 2500gm</td>
</tr>
<tr>
<td>2006</td>
<td>McGarvey et al</td>
<td>Ireland</td>
<td>Case control</td>
<td>287 cases 831 controls</td>
<td>Increased risk for babies less than 10 weeks old, even in non-smoking parents. Risk increased 3 fold if low birth weight.</td>
</tr>
<tr>
<td>2005</td>
<td>Tappin et al</td>
<td>Scotland</td>
<td>Case control</td>
<td>123 cases 263 controls</td>
<td>Increased risk for babies less than 11 weeks, even if non-smoking parents.</td>
</tr>
<tr>
<td>2004</td>
<td>Carpenter et al</td>
<td>European Union ECAS</td>
<td>Case control</td>
<td>745 cases 2411 controls</td>
<td>If mother non-smoking increased risk only in first 8 weeks</td>
</tr>
<tr>
<td>2004</td>
<td>Vennemann et al</td>
<td>Germany</td>
<td>Case control</td>
<td>333 cases 998 controls</td>
<td>Significantly increased risk only if smoking mother</td>
</tr>
</tbody>
</table>
The increased risks in the presence of multiple SIDS risk factors can be very high. For example, some New Zealand data showed that the combined SIDS risk for a preterm baby prone sleeping was 18 times higher than a term baby not sleeping prone\textsuperscript{19, 10, 11}.

A large English case control study\textsuperscript{10, 17} recently examined the effect of various risk factors for SIDS in babies who were born preterm (<37 weeks) or of low birthweight (called “small at birth”), and in babies who were not “small at birth”. The risks were compared with the risks for babies not small at birth, sleeping beside the parents’ bed. The effect of all risk factors for SIDS, including bed-sharing, was greater for babies who were small at birth. For babies of normal birthweight and not preterm there was no significant increased risk of SIDS if co-sleeping with non-smoking parents (OR 1.12, 95% CI 0.30-4.27). In the case of co-sleeping with smoking parents there was nine times the risk of SIDS (OR 9.11 95% CI 4.12 - 20.22). For the babies small at birth (preterm or low birthweight), co-sleeping with smoking parents, there was 37 times the risk of SIDS (OR 37.41 95% CI 5.83 – 239.86) and even for co-sleeping with non-smoking parents there was a significant increase in the risk of SIDS (OR 15.18, 95% CI 1.02 to 225.50).

The authors commented that virtually all of the apparent risks associated with bed-sharing with non-smoking parents applied to preterm and low birthweight babies. This study also found that there was an increased risk of SIDS associated with sleeping in a separate room from the parents, for both groups of babies, with the risk being higher for those small at birth.

However, other research has found that whilst the risk of SIDS for babies of normal birth weight co-sleeping with non-smoking parents is small, it is still statistically significant in babies under the age of 11 weeks\textsuperscript{11, 13, 19}.

Most of the research on co-sleeping has been about SIDS and not about sleep accidents (suffocation or asphyxia). One United States study of co-sleeping and suffocation has shown that while the risk of suffocation death in an adult bed was at least 20 times the risk for babies in their own crib, the absolute risk was low at 12 to 25 deaths per 100,000 infants aged less than 8 months. Data on SUDI in NSW showed that the risk of SIDS was 4.2 per 1000 live births.

**SUMMARY OF RESEARCH ON CO-SLEEPING**

In summary, the research shows:

- There is an increased risk of SIDS associated with co-sleeping with young babies (<2-3 months) and especially those who are preterm and of low birthweight.
- The risk is increased by smoking in pregnancy and parental smoking after birth.
- There is little evidence of an increased risk of SIDS after 2-3 months if no parental smoking.
- There is an increased risk of suffocation compared with sleeping in a cot, but the absolute risk is low. Co-sleeping on a couch is particularly hazardous.

It is clear from the research that where other risk factors for SIDS are present, co-sleeping should be discouraged. In addition, co-sleeping should be discouraged for babies less than 11 weeks. It should be noted that in the UK, over 90% of co-sleeping deaths occurred in an unsafe co-sleeping environment as defined by the UK guidelines (prone sleeping, parents smoke, have recently consumed alcohol, slept on a sofa, or a combination of these factors)\textsuperscript{20}.

As there is evidence that room sharing with an adult, (with the baby in a separate cot) is protective\textsuperscript{12, 14}, it would appear prudent for health professionals to encourage this behaviour. It is hoped that this will promote bonding and breastfeeding, in the safest manner. The use of clip-on cots in hospital situations would be an ideal method of encouraging this\textsuperscript{21}.
SITUATIONS WHEN BED-SHARING / CO-SLEEPING IS CONSIDERED HIGH RISK

Research has identified the following situations in which co-sleeping possesses a significantly higher risk of SIDS and should not be recommended:

- Either the mother or father/partner is a smoker
- The mother smoked in pregnancy
- Either the mother or father/partner have consumed alcohol or taken any medication or illicit drugs which may alter consciousness or cause drowsiness
- Extreme tiredness – to the point where parents would find it difficult to respond to their baby
- Sleeping with a baby on a sofa, couch, waterbed, bean bag or sagging mattress
- Excessive bedding e.g. doonas
- Preterm or small for gestational age babies
- Babies under 11 weeks of age
- Sharing a sleep surface with other children or pets

It is recommended to AVOID co-sleeping in the following situations:

* parental smoking or impaired conscious state,
* preterm and other small babies
* all babies under 11 weeks of age

Note that supine sleeping position (back to sleep) is particularly important

BENEFITS OF BED-SHARING

- Promotes breastfeeding
- Allows parents to respond more quickly to the baby’s needs
- Helps with settling and comforting babies
- Helps with maternal-infant bonding

SAFER BED-SHARING / CO-SLEEPING INFORMATION FOR PARENTS

It must be recognised that for parents in some situations, bed-sharing is the only possible option. These parents, and those who choose to share a bed with their baby, need advice about how to do so in the safest possible manner. Advice about other risk factors is given above.

The following advice should be given to parents choosing to bed-share or co-sleep with their babies:

- Ensure the mattress is firm and flat
- Make sure the bedding or covers do not overheat the baby
- Ensure that baby is free from pillows and bedding
- Use a safe baby sleeping bag, one fitted with neck and arm holes, as a safe alternative to bedding
• Do not leave the baby alone on the bed
• After breastfeeding make sure the baby is in the supine position and not side lying or prone
• Never let other children or pets sleep near the baby
• Make sure baby can’t fall out of bed
• It is safest for the baby to be placed between the mother and the side of the bed, rather than between parents. Cradling the baby with the mother’s arm can reduce the chance of the baby falling out of bed.
• Sleeping on a low mattress may be safer than a high bed
• Mothers should sleep facing the baby

**BENEFITS OF ROOM SHARING**

Research has shown room sharing with an adult is protective against SIDS\(^{12,14}\). It is advised that the baby share a room with the parents for the first 6 to 12 months of life. Parents should ensure that items such as soft toys, cot bumpers, sleep positioners or sheep skins are removed from the cot.

Room sharing enables the parents to:
• respond to their baby’s needs more quickly
• more conveniently and easily settle and comfort their babies than if sleeping in a separate room
• communicate with their baby.

**SAFE SLEEPING IN MATERNITY FACILITIES**

It is clear from the above research that a number of factors in the maternity hospital (very young babies and tired mothers, often with after effects of medications which cause drowsiness) increase the risks of co-sleeping and therefore precautions need to be taken to reduce the chance of unintended co-sleeping.

On the other hand, close skin to skin contact between mother and baby is vital for the establishment of breastfeeding and the development of maternal infant attachment. For many, if not most women, this includes breastfeeding and settling their baby in their bed. Some women will need closer supervision to ensure that they don’t fall asleep with the baby in the bed.

**RISK ASSESSMENT FOR MOTHERS AND BABIES IN HOSPITAL**

A varying level of supervision will be required depending on the mother’s clinical condition for women choosing to breastfeed and/or settle their baby in her bed. Any woman experiencing the following clinical conditions: inability to remain alert, restricted movement and severe difficulty with spatial awareness will require close supervision when feeding and/or settling her baby in her own bed.

**SAFETY OF THE PHYSICAL ENVIRONMENT**

It is important that babies are protected from falling out of the bed.

Use of clip-on cots, where available, will make it possible for the woman and her baby to be left unsupervised for longer periods \(^{21}\). At present clip-on cots are not available at King Edward Memorial Hospital.

In some instances suitable family members can be asked to supervise the woman to ensure the baby’s safety. The health professional must use professional judgement to assess the family
member’s willingness and suitability to supervise the mother and baby, providing appropriate instructions, as needed.

**DOCUMENTATION**

Document in the woman’s medical records if she chooses to bed-share against medical advice.
REFERENCES