Reducing the risk of sudden infant death—a steady gain but still room for improvement

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The term ‘sudden infant death syndrome’ (SIDS) describes the sudden death of an infant in the first year of life (apparently occurring during sleep) that remains unexplained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of death and clinical history.1

Sudden unexpected death in infancy (SUDI) is now the preferred terminology and describes cases at presentation that range from those that remain unexplained following full investigation (SIDS), to those that are fully explained after investigation and in particular post mortem—i.e. cases clearly attributable to factors which on their own alone would be sufficient to cause death. In the middle are the ‘unascertained’ cases where a pathologist or coroner is unclear to what extent the deaths are explained by circumstances at the time of death such a bedsharing or placement in another non-recommended sleep position. The term ‘unascertained’ is usually used because there is incomplete information available about the circumstances of death to determine exactly whether a particular sleep environment would have resulted in the accidental asphyxia of an otherwise completely normal and healthy infant.

In the 1980s, New Zealand had the unenviable reputation of having one of the highest rates of sudden infant death in the world.2 There was also a north–south differential with a higher prevalence documented in the south than the north. This lead to the development of the New Zealand Cot Death Study, which found that four modifiable factors, prone sleeping, bedsharing, maternal smoking during pregnancy, and not breast feeding were risk factors for SIDS.3 These findings were confirmed by other international epidemiological studies undertaken both concurrently and since and have been the basis of the ‘reduce the risks’ and ‘safe sleep’ campaigns developed locally and worldwide that have brought about the reductions in sudden infant death rates seen today.4 The question remains, however, if we have the knowledge now to prevent these deaths why are they still happening today, albeit as lower rates.

The paper by Hutchison et al in this edition of the Journal describes changes over time from 2005 to 2013 in mothers’ knowledge of (and practice related to) risk factors for sudden unexpected death in infancy.5 These changes are positive and reassuring. Avoidance of bed-sharing has at times been a controversial part of the ‘reduce the risk’ message. For those of us who have had to provide information and support to parents who have had a baby die in a bedsharing situation, it seems to be straightforward. These are preventable deaths.

An interesting development in more recent times is that the Police in New Zealand are now choosing to charge some parents of infants who have been found dead in a bedsharing situation, usually when excessive use of alcohol has been associated.6 The charges laid are usually from Part 8, Section 152 of the Crimes Act entitled ‘Duty of parent or guardian to provide necessaries and protect from injury’. There is some bias here as parents who have their baby in bed every night but their baby does not die, are not charged with failure to provide the ‘necessaries of life’ and yet the ‘crime’ committed, if any, appears the same. For those infants who die it is most likely the associated underlying vulnerability of the infant in bed with the adult that it is the issue not the act of bedsharing alone.

Despite a huge increase in the literature describing a number of differences between those infants who are at risk of dying unexpectedly and those that thrive, we cannot yet prospectively pick each individual infant who will succumb in a potentially compromising situation such as bedsharing nor do we fully understand the final mechanism of death for these all of these infants. If there has been an
independent observation that an adult was found lying completely over an infant obstructing the airway then the mechanism of death is usually clear, but that is rare.

So we now know enough to provide information for parents about how to greatly decrease the risk of their infant dying suddenly and unexpectedly but we do not know enough to be able to give an individual baby a complete clearance for ‘risk’. There is still the occasional infant dying suddenly and unexpectedly in an apparently safe sleep situation and these infants indicate to us that we do not yet have all the answers to solve this particular clinical problem and reason for post-neonatal mortality. We still, however need to ensure that the sleep situation of each infant is as safe as possible.

Why do some parents still not place their child routinely to sleep in the supine position for sleep and in their own bed? For some, there are cultural reasons why bedsharing is preferred. What is often forgotten is that the development of bedsharing in those cultures started at a time when babies slept alongside their parents on a low sleep surface with their own bedding, not in a queen, double or single bed with shared bedding. For others the importance of bedsharing is more about attachment and facilitating breastfeeding.

For others bedsharing sadly occurs because of poverty and overcrowding and is therefore not a truly free choice of the parents. Bedsharing can also occur because of lack of appreciation of risk—‘it won’t happen to me’. It is not unusual for the final fatal bedsharing event to occur because of a combination of factors that affect parental judgement such as tiredness and alcohol or other drug use.

So in 2015 the message does remain the same and it is pleasing (in this sample at least) that parents and caregivers are heeding the messages about safe sleep for their infants. Avoidance of bedsharing, placement of infants to sleep in the supine sleep position, avoidance of smoking during and after pregnancy, and breast-feeding are still the main messages. Midwives and Plunket nurses are providing good advice to families, and if it is followed, more infant lives will be saved.

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References