



Seeing the Same Patterns: Lessons from Sudden Infant Death Reviews

Alex's story

Alex*, a senior emergency department nurse, attended the hospital's mortality and morbidity meeting as the fourth Sudden Unexpected Death in Infancy (SUDI) in eight months was discussed. All four infants had arrived in the emergency department receiving resuscitation after being found non-responsive at home during sleep. No baby survived despite CPR.

Alex had happened to be present for every arrival. She remembered the shock and grief of each family, and the visible impact these deaths had on staff who were deeply affected by the sense of helplessness that followed. While each death was unique, the growing familiarity of the circumstances was hard to ignore. She also wondered if there were other SUDI occurring in the community where the baby hadn't been brought into hospital.

As part of the review committee, Alex later revisited the meeting notes from the four cases, looking for patterns. All the infants were between 8 and 12 weeks of age. Each had been born at the hospital, with no major birth complications or significant postnatal concerns. Antenatal attendance varied, but all mothers had smoked cigarettes during pregnancy.

In every case, Queensland Police attended the Emergency Department to speak with parents about the events leading up to the death. A disrupted or out-of-routine sleep situations (a change in routine, a different sleep space, or a different sleep position) was common. Pillows were used in each sleep environment, and the infant had been sharing a sleep surface with an adult in two cases. In some cases it was a father or grandparent, rather than the mother, who had placed the infant to sleep.

As the review progressed, further similarities emerged. All four families had documented vulnerability factors, including domestic and family violence, maternal mental health concerns, substance use or prior family involvement with child protection services. While some of these risks had been identified by services, Alex noted inconsistencies in how concerns were escalated and how additional supports or continuity-of-care pathways were activated. **Fictional story to illustrate key learnings*

What do statewide SUDI reviews tell us?

Reviews of over 250 sleep-related SUDI cases by QPQC consistently show that deaths rarely occur in the context of a single contributing factor. Instead, they reflect a complex interaction between infant vulnerability, the sleep environment, developmental stage, and caregiver capacity, particularly during periods of fatigue, stress, substance use, or disrupted routines. Occasionally, SUDI occur despite optimal care and safe sleep practices. More often, multiple contributory factors are identified.

Across Queensland, these reviews found:

- Queensland Ambulances Services are called to 95% of SUDI in a sleep setting, 75% infants are pronounced deceased where the event occurred, **25% are brought to hospital under resuscitation.**
- Infants exposed to **in-utero tobacco smoke** were **12 times more likely to die** of SUDI in a sleep setting
- **86%** of cases (where sufficient detail was available) involved **soft bedding (including pillows and sleep surfaces)** that possibly or probably contributed to the death
- **65%** had identified parental mental health concerns
- **38%** occurred in context of domestic and family violence
- **48%** of families were known to child protection services

Lessons Learnt

1. Go beyond the tick box

- Ask where and how the baby sleeps.
- Discuss real-life situations, including disrupted routines, fatigue and substance use, and multiple caregivers.

2. Look at the sleep space

- Where possible, view, discuss, or ask about the actual sleep environment including shared sleep.
- Discuss the risk of soft bedding, especially pillows and loose items, in the sleep space.
- Ensure safe sleep conversations address plans for periods of disruption or out of routine circumstances.

3. Consider infant vulnerability

- In-utero tobacco exposure, early term or preterm birth and low birth weight increase SUDI risk.

4. Recognise vulnerability as a risk amplifier

- Maternal adversity, mental health concerns, domestic and family violence, substance use, and social stressors warrant early escalation and warm referral.

5. Strengthen continuity and shared care

- Use warm referrals and advocate for continuity-of-care for families with identified risk.

6. Safer infant sleep is everyone's responsibility

- Infant development is dynamic and family needs and circumstances change over time.
- Adopt an opportunistic approach to safer sleep conversations.
- Revisit safe sleep conversations as babies grow and develop, and involve all caregivers, including fathers and grandparents.

Useful resources

1. QPQC Report: [Sudden and unexpected infant deaths during sleep in Queensland 2013 – 2016](#) | Children's Health Queensland
2. Queensland Clinical Guidelines: [Guideline: Safer Infant Sleep](#)
3. Resource for caregivers (2 min video) [Protecting your baby's airways](#)