Child protection intervention with high-risk infants
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Introduction

If children are to grow into healthy, confident and well-adjusted adults, with the skills necessary to navigate life’s complexities, they must have parents or carers who are able to meet their physical, emotional and cognitive needs from birth.

For those infants whose parents are unable to meet their protective and care needs, child protection services must intervene, as early as possible, to moderate the impact of harmful living conditions and poor parenting practices (Campbell & Jackson 2002:10,13). Such infants are referred to as High Risk Infants (HRIs), that is, infants who, due to the presence of a number of risk factors, are at significantly greater risk of harm.

This practice paper has been developed to help Child Safety staff more skilfully identify, assess and address the protective and care needs of HRIs. It includes:

- practice principles for working with HRIs and their families
- information about risk and protective factors for this group of children
- detailed information about Failure to Thrive and Abusive Head Trauma
- practice tips on child protection practice with HRIs and their families.

Summary of evidence from research

Infancy, defined here as the first three years of life, is a particularly critical period in the child’s development. While infancy represents only a small part of the child’s pre-adult development, it is disproportionately significant in ensuring optimal health and development across the entire lifespan (Borkowski & Weaver 2006:17).

These three years are also crucial to the child’s brain development. This is when the brain lays down the foundations for movement, communication, social and emotional capabilities and intellectual functioning (Silver, Amster & Haecker 1999:5).

From birth, the child develops expectations of themselves and others which form the basis of who they become and how they will relate to the world around them (Karr-Morse & Wiley 1997:4). Such development is driven by complex interactions between each individual child’s biological makeup and the challenges and supports within their home and environment (Silver et al 1999:5).

Because of the critical nature of this developmental phase and the importance of these interactions, experiences of sub-standard care or abuse can have significant long-term impacts upon the child’s physical growth and psychological development.

This life stage is also the time when a child is most vulnerable. Infants are totally dependent and either do not communicate through language or are very limited in their ability to do so. Their restricted mobility does not provide any measure of self-protection. They are at much greater risk of being socially ‘invisible’ and may have limited contact with support services (DHSYFS 1999:5; Berrick, Needell, Barth & Jonson-Reid 1998:1).
Queensland child protection data shows that infants under 4 years represent a disproportionately high percentage (36%) of the total number of child protection notifications recorded and for substantiated outcomes (34.5%) recorded for all children under 18 years. Neglect and physical harm were the two most common categories of harm substantiated for infants under 4 years. (Department of Communities 2010-2011).

**Practice principles**

Practice principles guiding child protection intervention with HRIs include:

- the safety of the infant is the paramount consideration
- the infant’s vulnerabilities necessitate extra vigilance when assessing their protective and care needs
- all decisions will be based upon high quality, holistic risk assessment that takes into consideration the child, their family and the social context
- early establishment of a healthy attachment to a consistent carer is essential to positive long-term outcomes. Whenever possible this attachment is best to occur with the child’s biological parent. Establishment and maintenance of attachment must be a critical element in case planning and consultation with a specialist in infant attachment should be considered as part of case planning.
- Child Safety staff will ensure close collaboration with other key service providers and professionals including medical specialists, and other health care professionals
- Child Safety staff will develop targeted case plans to enable early intervention, active outreach and in-home service provision.

**Risk factors in high-risk infant cases**

There is no single profile for a HRI or a high-risk family. Harm to an infant will most often be the result of the interplay between multiple risk factors related to the parent, the child and the social context in which the parent-child relationship exists (Jackson, Johnson, Millar & Cameron 1999:5; Weberling, Forgays, Crain-Thoreson & Hayman 2003:2).

**Parental risk factors**

The following factors have been identified in the research literature as relevant to the parent of an infant who may be at high risk:

1. **Age of the parent:** It has been proposed in research that young parents (those under 20 years of age) are more likely to abuse or neglect their infants. This higher risk may be the result of young or teenage parents:
   - having unrealistic expectations of their parenting role and their child’s needs and behaviours
   - being isolated and lacking family and community supports
   - lacking confidence and self-esteem
   - having lower incomes and a less healthy lifestyle, including substance abuse
   - forming unwise relationships that result in violence
   - suffering from depression.
2. **Previous child protection history:** Parents who have a previous history of abusing or neglecting a child or removal of a child are more likely to abuse subsequent children (Jackson et al 1999:11-12).

3. **Substance abuse:** Children are at a much higher risk of harm during infancy when one or more of their parents misuses alcohol or drugs (Silver et al 1999:13; Biegel & Blum 1999:58; Osofsky 2004:265; Gessner et al 2004:13; Campbell & Jackson 2002:13; Jackson et al 1999:7). Research from the United States has proposed that children will be between 4 and 16 times more likely to experience harm when their parents misuse substances (Hogan, Myers & Elswick 2006:146; Jackson et al 1999:7). In addition to the negative impact of alcohol and drugs on the parents’ capacity to provide constant care and supervision, substance misuse is also often exacerbated by a number of concurrent risk factors (Osofsky 2004:265; Biegel & Blum 1999:61; Berrick et al 1998:2; Silver et al 1999:12,13; Ashdown-Lambert 2005:80; Hogan et al 2006:146, 147; Jackson et al 1999:7) including:

- poverty
- young age
- poor pre-natal care and nutrition
- domestic violence
- homelessness
- unemployment
- poor physical health
- mental illness
- stress
- low self-esteem
- poor parenting skills
- incarceration or criminal activity
- low educational status

4. **Domestic violence:** Research has clearly demonstrated that an infant will be at higher risk when his or her mother is a victim of domestic violence (Connell-Carrick & Scannapieco 2006:307; Jackson et al 1999:9). The increased risk, it has been suggested, is due to the likelihood that the mother may suffer significant injury and emotional and psychological trauma and her resulting inability to meet the infant’s care needs or to comfort them during the violent incidents (Osofsky 2004:263).

5. **Childhood experience of abuse:** Parents who had a history of childhood abuse were more likely to be substantiated as persons responsible for abuse. This greater risk may have been the result of poor parenting models and reduced parenting capabilities (Connell-Carrick & Scannapieco 2006:311).

6. **Low educational status:** A study in Alaska of 325 cases of physical abuse resulting in death or hospitalisation, by Gessner et al (2004) found that parental education of less than 12 years was a significant risk factor for future abuse of an infant.

7. **Mental illness:** Research found that caregivers who had a history of depression, post-natal depression, anxiety, delusional thoughts or attempted suicides were more likely to be substantiated for abuse (Connell-Carrick & Scannapieco 2006:311; Campbell & Jackson 2002:13; Jackson et al 1999:5-6).
8. **Disability**: Parents with an intellectual disability may be at greater risk of harming their infants. Research suggests that this increase may be due to a lack of understanding of the infant’s basic needs and a lack of ability to interpret the infant’s cues (Jackson et al 1999:8).

9. **Negative perceptions of child**: Parents at high risk of abusing their child often display negative emotions towards their child regardless of the child’s actual behaviour or characteristics. These parents may be insensitive, rejecting, scapegoating or humiliating in their interactions with their infant (Grietens, Geeraert & Hellincks 2004:322; Connell-Carrick & Scannapieco 2006:312).

10. **Poor parenting skills**: Unrealistic expectations, lack of sensitivity or responsiveness to the child’s needs, rigidity towards the infant’s behaviour, poor parent-child attachment and lack of knowledge about typical child development or behaviours have consistently been associated with an increased risk of abuse. (Borkowski & Weaver 2006:86; Grietens et al 2004:323; Connell-Carrick & Scannapieco 2006:306,312; Jackson et al 1999:10)

11. **Poor impulse control**: Research suggests that there is a higher risk of abuse where parents have demonstrated poor impulse control, low frustration tolerance, problems with anger management and fewer problem solving skills (Connell-Carrick & Scannapieco 2006:314; Campbell & Jackson 2002:13).

12. **Poor attachment to the newborn**: Literature supports the association of poor attachment with a child and abuse and neglect of that child.

**Child risk factors**

A number of child specific risk factors have been identified in the research literature including:

1. **Premature and low birth weight**: Babies born prematurely or those that have a low or very low birth weight are at greater risk of harm from abuse and neglect (Biegel & Blum 1999:58; Gessner et al 2004:13; Sidebotham & Heron 2003:1,4, 6). This increased risk may be due to infant health problems and the parents’ inability to address these additional challenges when already effected by other contextual factors (Sidebotham & Heron 2003:7). Contextual factors that increase the likelihood of premature birth or low birth weight and impact upon postpartum care (Biegel & Blum 1999:67; Silver et al 1999:12; Ashdown-Lambert 2005:76, 77,80,81) include:
   - poverty
   - social isolation
   - domestic violence
   - stress and depression
   - maternal smoking or substance abuse
   - poor nutrition

2. **Pre-natal exposure to alcohol and drugs**: Research has identified that infants born after foetal exposure to maternal substance abuse are at higher risk of abuse and neglect (Biegel & Blum 1999:58, 60). This increased risk may be due to the combination of the infant’s complex health and care needs including impacts upon the developing brain of the foetus (Silver et al 1999:7,13), possible poor attachment after lengthy periods of hospitalisation and the mother’s impaired parenting capacity, where substance abuse continues after the child is born. In a survey of pregnant American women between the ages of 18 and 34 years, 62 per cent of the women reporting drinking in the past month (Biegel & Blum 1999:58, 60).
3. **Disability:** Research by Spencer, Devereux, Wallace, Sundrum, Shenoy, Bacchus & Logan (2005) identified that infants with speech and language disorders, learning difficulties, conduct disorders or non-conduct psychological disorders were more likely to be in contact with the child protection system, as follows:

- children with conduct disorders - **seven** times more likely to be notified, particularly for sexual abuse
- children with learning difficulties - **five** times more likely to be notified, particularly for sexual abuse
- children with non-conduct psychological disorders - **four** times more likely to be notified, particularly for emotional abuse
- children with speech and language difficulties - **three** times more likely to be notified for emotional abuse.

4. **Unintended pregnancy:** Children who were born from unintended pregnancies were more likely to be notified in relation to abuse (Sidebotham & Heron 2003:1,4,8).

5. **Feeding difficulties or prolonged or frequent crying:** Research has suggested that children perceived by parents to have feeding problems or prolonged periods of crying are at greater risk of abuse (Sidebotham & Heron 2003:4,8).

**Environmental risk factors**

Environmental risk factors that have been demonstrated as contributing to an increased risk of harm for an infant include:

1. **Isolation:** Lack of family and community support has been identified as contributing to an increased risk of abuse during infancy. Parents who are experiencing significant stress may have limited peer, family or service supports and may be less inclined to seek out social contact (Borkowski & Weaver 2006:87; Grietens et al 2004:323,332; Connell-Carrick & Scannapieco 2006:307,313; Campbell & Jackson 2002:13; Jackson et al 1999:10). This issue will be more significant in single parent households where the parent may inappropriately turn to the child for emotional support (Jackson et al 1999:11).

2. **Poverty:** Infants in low-income families are twice as likely to be exposed to abuse and neglect (Biegel & Blum 1999:67; Borkowski & Weaver 2006:87; Connell-Carrick & Scannapieco 2006:306) and are more likely to be placed in out-of-home care. A low household income often results in a less stimulating home environment, poor access to health care and support services and increased parental stress. The longer the infant remains in poverty, the worse the developmental outcomes (Berrick et al 1998:3; Borkowski & Weaver 2006:33; Jackson et al 1999:10).

3. **Household composition:** In their study of child deaths resulting from inflicted injuries, Schnitzer and Ewigman (2005:687-8) found that infants residing in households with unrelated adults were 50 times more likely to die of abuse. In 83.9 per cent of these cases, the perpetrator of the abuse was the unrelated adult and of these individuals, 71.2 per cent were male.

4. **Chaotic or unsafe home environment:** Families with more environmental stressors, such as overcrowding, or where the home was dangerous or unsanitary were more likely to be substantiated for abuse (Connell-Carrick & Scannapieco 2006:306,313).
Protective factors in high-risk infant cases
Current research indicates that protective factors that support resilience for HRIs and families include:

1. **Social support:** Provision of support to high-risk families may address some modifiable risk factors, reduce the overall level of stress within the family and create a more positive environment for parent-child attachment (Silver et al 1999:19).

2. **Good health care and nutrition:** Risk factors, such as premature birth and low birth weight, may be minimised through good maternal pre-natal care and nutrition (Silver et al 1999:19).

3. **Good quality out-of-home care:** For those infants who are unable to remain in the care of their parents, alternative care providers must be able to meet the child’s special care and ongoing developmental needs (Silver et al 1999:19).

4. **Healthy spousal relationship:** A healthy spousal relationship may reduce the likelihood of abuse by providing a buffer against other contextual risk factors (Weberling et al 2003:3).

5. **Understanding of basic child development and parenting skills:** Helping parents, particularly young parents, to gain an understanding of basic child development and parenting skills may reduce the level of risk of future harm by normalising expectations and reducing parental stress (Weberling et al 2003:3).

Abuse and neglect specific to infants and young children:
The following four clinical scenarios specific to infants will be discussed briefly below:
- Bruising in a non-mobile child
- Sudden Infant Death Syndrome (SIDS)
- Failure to Thrive (FTT)
- Abusive Head Trauma

**Bruising in a non-mobile child:**
Bruising is the most common presentation of physical abuse in children. While ‘wear and tear’ bruises are common in older children, they are not common in young children. The adage ‘children who don’t cruise, don’t bruise’ is well worth remembering.

Children presenting with severe inflicted injuries frequently have multiple bruises and it is not uncommon to have a history that the bruising commenced some time before the severe trauma which results in medical attention. Identifying suspicious bruises is therefore essential in preventing more significant injury.

The distribution of bruises is also significant with bruises to the face, head, neck, torso and hands and feet being uncommon in accidental injury.

One bruise alone in a young non-mobile baby may be highly significant and warrant further investigation. Medical assessment will help to exclude underlying medical conditions leading to easy bruising as well as look for other occult injuries i.e. injuries that are not clearly apparent. Full psychosocial assessment of risk factors is essential for any child with suspicious bruising.
Sudden Infant Death Syndrome

SIDS is the “…sudden and unexpected death of an infant under one year of age, with onset of the lethal episode 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 the clinical history” (Qld Health 2008:12; CCYPCG 2007, QPS11 2005:115).

Incidence

In both Australia and the USA, SIDS is the number one cause of death for infants between the ages of one month and one year (Borkowski & Weaver 2006:26). The risk of SIDS is higher for male and first born infants and the risk peaks between two and four months of age. Deaths from SIDS are more prevalent during winter. (Qld Health 2008:10). Refer to ‘Safe Infant Sleeping Implementation Standard’ and ‘Co-sleeping and Bed-sharing Implementation Standard’ and ‘Queensland Health Safe Infant Sleeping Policy 2012’ for information about risk reduction factors for SIDS.

The introduction of programs to educate parents on safe sleeping and infant care practices has resulted in an 83% reduction in the number of infant deaths from SIDS in Australia in the last 20 years (Linacre 2007). Despite this decrease, Queensland’s mortality rate continues to be higher than the national average (CYPCG 2010-2011:129).

SIDS and Indigenous communities

While there has been a decrease in the number of infant deaths from SIDS, the Indigenous populations in both Australia and the USA continue to be disproportionately affected by SIDS.

In Queensland in 2006-2007, the incidence of SIDS related deaths in the Aboriginal and Torres Strait Islander population was 3.3 times higher than non-Indigenous infants (CCYPCG 2010-2011:108).

In the USA, there has also been a slower rate of decline in the number of infant deaths from SIDS in the African American, Alaskan Native and Native American communities (Borkowski & Weaver 2006:27).

Research from both Australia and the United States demonstrates that education programs about SIDS risk factors and safe infant care programs are effective in the general population but may be less effective in Indigenous populations because the information was not presented in a culturally appropriate way or was not made available to all members of the community (Qld Health 2008:36; Borkowski & Weaver 2006:27).
SIDS Risk factors

Parental factors
- antenatal and post-natal smoking
- substance misuse
- low levels of education
- young maternal age
- short intervals between pregnancies
- poor antenatal care

Infant factors
- premature birth or low birth weight
- multiple birth
- male gender
- neonatal health problems including minor respiratory or gastrointestinal problems

Environmental factors
- sleeping the infant on his or her stomach
- shared sleeping or co-sleeping
- winter months
- low income
- domestic violence
- sleeping the infant on soft surfaces with loose bedding
- overwrapping/ overheating the baby sub-standard housing
- unemployment

Failure to Thrive

Failure to Thrive (FTT) is “...a significantly prolonged cessation of appropriate weight gain compared with recognised norms for age and gender...” (Block & Krebs 2005:1234).

When FTT is suspected it is essential that medical assessment occur to exclude any underlying medical condition that might be causing the FTT. At the same time as potential medical causes are being excluded, assessment of any relevant psychosocial risk factors should also occur and be addressed.

FTT is a common problem in infancy which may result from poor nutrition and disturbed social interactions that contribute to poor weight gain and delayed development and abnormal behaviour (Block & Krebs 2005:1234). Refer to Appendix 1 - ‘HRI Fact Sheet: Failure to Thrive’ for information about the risk factors for FTT.

In some cases there is a combination of underlying medical vulnerability and parental inability to meet the child’s additional needs i.e. poor match between child’s needs and parental capabilities. Extra supports need to be explored.

Abusive Head Trauma

Abusive Head Trauma (AHT), previously known as Shaken Baby Syndrome (SBS), is one of the most deadly and devastating forms of child abuse and is characterised by a traumatic brain injury caused by violent shaking of the infant (Gutierrez, Clements & Averill 2004:22). The injuries may or may not include impact trauma, hence the more inclusive term of AHT.
Many of the injuries resulting from shaking are due to the whiplash motion that has occurred, including sudden acceleration and deceleration and angular rotation of the infant’s head. Infants are particularly vulnerable to injury from shaking because of the combination of a heavy head, weak neck muscles, soft and rapidly growing brain, thin skull wall and lack of control of the head and neck.

The child who has been shaken or impacted can present with a wide variety of symptoms from subtle symptoms of drowsiness, vomiting or irritability to catastrophic collapse leading to severe disability or death. Children who present with more severe symptoms often have findings indicating previous less significant episodes of trauma, providing a potential window of prevention.

- As mentioned above, the signs of AHT may be very subtle and missed because of lack of outward signs of abuse. If AHT is suspected it is important, where ever possible to have a medical assessment by a Paediatrician with expertise in Child Protection. Caregiver secrecy about the true nature of events also delays diagnosis (Gutierrez et al 2004:26-27). Refer to Appendix 2 - ‘HRI Fact Sheet: Abusive Head Trauma’ for information about the risk factors and risk indicators for SBS

Incidence of AHT

In Queensland, Biron and Shelton (2005) reported their study of 52 cases of infant abusive head trauma that were reported to the Queensland Police Service between July 1993 and June 2003. In this study 27 of the infants were male and 38 per cent involved fatal injuries. Of the cases reported, 38 involved assault by either shaking alone or shaking and impact and, of these 38 infants, 15 died as a result of their injuries.

Research from the USA has proposed that 10-12 per cent of all infant deaths from child abuse in the USA are as a result of AHT. Approximately 50,000 cases of AHT are reported annually in the USA and one in four of these will result in the infant’s death (Gutierrez et al 2004:24).

In the USA, between 65 per cent and 90 per cent of perpetrators in AHT cases were males and these individuals were typically the child’s father or the mother’s boyfriend. More than 60 per cent of the victims were male and the majority of all AHT cases involved children under 1 year old (Gutierrez et al 2004:25).

Risk reduction strategies

The provision of education to parents and potential perpetrators (Gutierrez et al 2004:30; Cobley & Sanders 2003:116), including male members of the household, may:

- increase their knowledge of the consequences for an infant of violent and repeated shaking
- increase coping skills
- increase general parenting skills
- reduce stress
- help the individual manage their anger.

Linking high risk families to a range of support services, including alcohol and drug, ante-natal, mental health and domestic violence services, may minimise the prevalence of associated risk factors.
Possible impacts of abuse or neglect during infancy

The effects of abuse and neglect on infants have been well researched and reported with clear evidence of significant long term consequences for many children. The nature and degree of the effects will depend on the infant’s age, the type of harm and the severity of harm that the infant experiences. While physical abuse and harm is often more easily identifiable, chronic neglect and poor attachment can be more challenging to identify despite the long term consequences being equally significant.

Refer to Appendix 3 - ‘HRI Fact Sheet: Possible impacts of abuse or neglect during infancy’ for further information.

Practice tips for child protection practice

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<tr>
<th>Timing of intervention</th>
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<tr>
<td>Given an infant’s very young age and extreme vulnerabilities, early assessment and intervention by child protection services is essential to minimise negative effects on a young child. Where possible, intervention should begin with high risk families prior to the child’s birth (Child Protection Act 1999, section 21A). This intervention is to include planning for any required intervention that may be required after birth and to address multiple risk factors with the parents before poor parenting patterns are established. The earlier intervention is commenced, the greater the longer term physical and developmental improvements.</td>
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<tr>
<th>Intake</th>
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<td>During the intake phase, as much information as possible should be gathered from the notifier and other departmental and external sources, in order to make an informed decision about the presence of risk factors for an infant. In most cases, where risk factors are identified for an infant, the matter will reach the threshold for recording a notification. Staff must always be mindful of the significant vulnerability of the child due to their young age.</td>
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<th>Investigation and assessment</th>
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<tr>
<td>During the investigation and assessment phase, the CSO must work actively to identify and assess the possible combination of parental, child and environmental risk factors and their impacts on the functioning of the child and family. Because an infant is not able to clearly articulate their concerns or needs, the CSO must look for subtle physical and developmental signs of possible harm during their investigation and assessment. The CSO should also consult their team leader about possible referral of a HRI case to the SCAN (Suspected Child Abuse and Neglect) team.</td>
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</table>
Early identification of injury, including abusive head trauma

When notified concerns relate to any injury in a non-mobile child or to a baby being shaken or, during the course of the investigation and assessment, the CSO suspects that the infant may have been injured or be exhibiting physical signs of AHT, such as lack of response to stimuli, alterations in breathing or temperature, poor feeding, irritability and lethargy, they should immediately seek a medical assessment, with the parents’ consent or if this is not forthcoming, with the use of powers under the Child Protection Act 1999. Where ever possible this assessment should be done by a Paediatrician with expertise in child protection (contact your local Queensland Health Child Protection Liaison Officer or Child Protection Advisor). Babies that die as a result of AHT often experience multiple incidents of violent shaking. Early identification and intervention may reduce the severity of the infant’s injury.

Case planning

Where an infant has been assessed as being in need of protection, the CSO must work quickly with the family and other key service providers to begin to address the identified risk factors. Key steps in this process are the development of a comprehensive case plan. The case planning and implementation process should include the involvement of the parents, family members and significant friends. This may reduce the parents’ isolation and enable the support people to gain knowledge and reinforce the learning with both parents. The case plan should identify all risk factors for the infant, and provide for referrals to specialist support services that can work with the family to address these risks.

The sooner risk factors can be modified, the better the outcomes for the infant and the greater the long-term gains for the child and family. Examples of risk factors that may be modified through early intervention include poor parenting skills, lack of knowledge of foetal and child development, poor nutrition, unsafe infant care, substandard housing, mental health issues, substance abuse, domestic violence and poor ante-natal care.

Home visits

The importance of regular contact with HRI case families, particularly early in the intervention, cannot be stressed enough. This contact should be clearly documented in the case plan and comply with minimum contact requirements. For instance, home visits by the CSO may initially occur on a weekly basis, and be reduced gradually. Regular home visits reduce the stress on parents to organise travel to appointments, allows for observation of the parent-child relationship and the home environment and reduce the risk of dropout by the parents.

Education about the effects of AHT

Where one or more AHT risk factors are present, parents and family members should be provided with information about the effects of shaking on young babies. The case plan should also include interventions that help reduce parental stress and provide strategies for parents to manage their baby’s crying.
**Inter-agency collaboration**

Inter-agency collaboration in HRI cases can assist in delivery of a co-ordinated and timely response to complex and critical infant needs. Family group meetings, case plan review meetings and the SCAN system will be of critical importance to successful intervention in HRI cases. Effective inter-agency collaboration results in more effective assessment and intervention, more effective use of resources and minimises duplication of services.

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<th>Issues for carers</th>
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<td>When an infant is placed in out-of-home care, their health and therapeutic needs should be assessed immediately as part of the child health passport process, and their needs addressed in the case plan. This process requires the support and involvement of the carer. Child Safety staff must ensure that approved carers are educated about safe infant care and where required, linked to local child health services that can provide information and education, including information about the effects of shaking on young babies.</td>
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**Conclusion**

Current national and international research clearly demonstrates that infants are at significant risk of physical, emotional, psychological and developmental harm due to their extreme vulnerability, their isolation and their inability to communicate through language. This group of children are at even greater risk when their parents and environments contain multiple risk factors that contribute to a greatly increased likelihood of harm.

When parents are not able to meet the many protective and care needs of these high risk infants, then this responsibility falls on child protection workers who have authority under Queensland legislation to intervene to provide such protection.

To ensure the protective and care needs of high risk infants are met, departmental officers must:

- ensure that they have a solid **understanding** of the risk factors associated with HRI cases
- use their knowledge of risk factors associated with HRI to ensure a comprehensive **assessment** of each case and prompt **identification** of those infants who are in need of protection
- **intervene quickly** to provide intensive support to the infant and family or to remove the child to an appropriate placement when they are not able to remain with their parents
- use all available opportunities, including family group meetings, case plan review meetings and referral to the SCAN System, to ensure a **multi-disciplinary response** to the infant and their family.
Appendix 1 - HRI Fact Sheet: Failure to Thrive

Risk factors

The following risk factors have been identified in the research literature (Block & Krebs 2005:1235; QPS11 2005:71) as contributing to an increased likelihood of an infant being diagnosed as Failure to Thrive:

<table>
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<tr>
<th>Parental factors</th>
<th>Infant factors</th>
<th>Environmental factors</th>
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<tbody>
<tr>
<td>• substance misuse</td>
<td>• premature birth or low birth weight</td>
<td>• lack of support</td>
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<tr>
<td>• family violence</td>
<td>• chronic illness or disability</td>
<td>• poverty</td>
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<tr>
<td>• poor parenting skills and knowledge</td>
<td>• feeding difficulties or food aversions</td>
<td>• isolation</td>
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<tr>
<td>• parental depression and stress</td>
<td>• behavioural or developmental problems</td>
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<tr>
<td>• parental history of abuse</td>
<td>• poor parent-child bond</td>
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<td>• poor parent-child bond</td>
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The presence of such factors may increase the risk of neglect and failure of the infant to thrive because of:

- the parent/s poor understanding of a baby’s needs and how they must respond to these
- the parent/s inability to provide appropriate nutrition and stimulation
- the parent/s previous poor parenting role models
- increased stress experienced by parents when they are unable to meet or understand the child’s basic needs
- the parent/s frustration when attempting to deal with difficult feeding issues or complications in feeding due to illness or disability.
## Appendix 2 - HRI Fact Sheet: Abusive head trauma

### Risk factors

The following risk factors have been identified in research findings (Gutierrez et al 2004:28-30; Cobley & Sanders 2003:105-7):

<table>
<thead>
<tr>
<th>Infant factors</th>
<th>Perpetrator factors</th>
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<tr>
<td>• premature birth or low birth weight</td>
<td>• failed repeated efforts to stop the baby crying</td>
</tr>
<tr>
<td>• disability</td>
<td>• poor impulse control</td>
</tr>
<tr>
<td>• incessant crying</td>
<td>• unrealistic child rearing expectations</td>
</tr>
<tr>
<td>• toileting problems</td>
<td>• feelings of inadequacy and isolation</td>
</tr>
<tr>
<td>• colic</td>
<td>• substance misuse</td>
</tr>
<tr>
<td>• multiple birth pregnancy</td>
<td>• inability to cope with stress</td>
</tr>
<tr>
<td>• poor sleeping routine</td>
<td>• young age</td>
</tr>
<tr>
<td>• behavioural or developmental problems</td>
<td>• rigid attitudes and impulsivity</td>
</tr>
<tr>
<td>• age under 1 year</td>
<td>• depression</td>
</tr>
<tr>
<td>• male gender</td>
<td>• negative childhood experiences including abuse, neglect or domestic violence</td>
</tr>
<tr>
<td>• step-child</td>
<td>• low educational status</td>
</tr>
<tr>
<td>• poor sleeping routine</td>
<td>• domestic violence</td>
</tr>
<tr>
<td>• behavioural or developmental problems</td>
<td>• sleep deprivation</td>
</tr>
</tbody>
</table>

The signs associated with an episode of repetitive and violent shaking (Gutierrez et al 2004:24; Osofsky 2004:261; Cobley & Sanders 2003:101; Biron & Shelton 2005:1348,1355) include:

<table>
<thead>
<tr>
<th>Medical findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• retinal haemorrhages</td>
</tr>
<tr>
<td>• diffuse brain injury and brain swelling</td>
</tr>
<tr>
<td>• intracranial haemorrhages, including subarachnoid haemorrhage and subdural haemorrhage</td>
</tr>
<tr>
<td>• mild to moderate changes in cognition including unresponsiveness and coma</td>
</tr>
<tr>
<td>• abdominal injuries</td>
</tr>
<tr>
<td>• patterned bruises</td>
</tr>
<tr>
<td>• alterations in respiration and temperature</td>
</tr>
<tr>
<td>• irritability and lethargy</td>
</tr>
</tbody>
</table>
Documented effects on infants of abuse and neglect (Osofsky 2004:261,3; Borkowski et al 2006:17,85-6; Biegal & Blum 1999:60; Zigler et al 2002:130,133; Silver et al 1999:6-7,12-14; Tomison 2004:20; Nair, Schuler, Black, Kettinger & Harrington 2003:999; Karr-Morse & Wiley 1997:15,58-9,63) include:

**neuro-developmental:**
- delays in achieving expected developmental milestones
- alterations to brain development and functioning, including the limbic system, which regulates memory and emotion, the neural structure and reduction in brain size
- impaired cognitive development and attention problems
- moderate to severe central nervous system problems
- deficits in gross and fine motor skills
- learning deficits and school failure
- anxiety, depression and low self esteem
- increased incidence of chronic illness, including asthma, ischemic heart disease and cancer
- aggressive behaviour
- attachment disorders
- social withdrawal or anti-social behaviour
- posttraumatic stress disorder (PTSD)
- substance misuse
- problematic interpersonal relationships
- sleep, feeding and toileting problems


### Other inflicted Injury:

<table>
<thead>
<tr>
<th>Injury</th>
<th>Potential consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal trauma</td>
<td>intensive medical intervention</td>
</tr>
<tr>
<td></td>
<td>death</td>
</tr>
<tr>
<td></td>
<td>long-term bowel dysfunction</td>
</tr>
<tr>
<td>Burns</td>
<td>intensive medical intervention</td>
</tr>
<tr>
<td></td>
<td>deformity</td>
</tr>
<tr>
<td></td>
<td>death</td>
</tr>
<tr>
<td>Fractures</td>
<td>intensive medical intervention</td>
</tr>
<tr>
<td></td>
<td>deformity</td>
</tr>
<tr>
<td>Bruising</td>
<td>anaemia</td>
</tr>
</tbody>
</table>
Children whose injuries are associated with particular syndromes may demonstrate effects including:

<table>
<thead>
<tr>
<th>For Sudden Infant Death Syndrome</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• death</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For Failure to Thrive (Block &amp; Krebs 2005:2)</th>
<th>Long-term deficits in intellectual, social and psychological functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• impaired growth</td>
<td>• long-term deficits in intellectual, social and psychological functioning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For Abusive Head Trauma (Shaken Baby Syndrome) (Osofsky 2004:261; Gutierrez et al 2004:26-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• death</td>
<td>• delayed development</td>
</tr>
<tr>
<td>• permanent brain damage</td>
<td>• behavioural difficulties</td>
</tr>
<tr>
<td>• coma or permanent vegetative state</td>
<td>• visual deficits including blindness</td>
</tr>
<tr>
<td>• significant cognitive and neurological deficits</td>
<td>• hearing impairment</td>
</tr>
<tr>
<td>• seizures</td>
<td>• sucking and swallowing disorders</td>
</tr>
<tr>
<td>• abdominal injuries and fractures</td>
<td>• autism</td>
</tr>
<tr>
<td>• lack of social supports</td>
<td>• physical deficits such as cerebral palsy</td>
</tr>
</tbody>
</table>

As a result of these impacts, infants may require (Osofsky 2004:261; Gutierrez et al 2004:26-7):

- special educational services
- long-term specialised medical and therapeutic intervention
- Intensive medical interventions
Bibliography


Zigler EF, Finn-Stevenson M, Hall NW. The First Three Years and Beyond – Brain development and social policy. Yale University Press, New Haven, 2002.