



*Topic Expert Group: Infant- and family-centred developmental care*

**Support for parental-infant bonding**

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*Target group*

Newborn infants and parents

*User group*

Healthcare professionals, neonatal units, hospitals, and health services

*Statement of standard*

The fostering of early bonding between parents and their newborn infant is pursued through strategies which promote early contact for the parent-infant dyad.

*Rationale*

The goal is to define optimal support opportunities for mothers and fathers/partners to facilitate early intimate contacts with their infant, to promote affectionate bonding toward and feeling of belonging with their newborn infant.

Bonding starts to emerge during pregnancy and comprises consistent parental feelings of being attached to the infant. In the event of a preterm birth, this process may be disrupted abruptly as admission to the neonatal unit becomes necessary, causing mother-infant separation soon after birth. (1–5) This separation hampers the normal physical contact and emotional closeness between the mother and her infant which causes long-lasting effects on emotional programming, neurodevelopmental outcomes, and parental mental health. (3,6–9)

Thus, particular support to facilitate bonding, despite obstacles posed by the infant's neurobehavioural immaturity and medical challenges, is required. Bonding may be sustained using different strategies, including educational and informational support (10), fostering of physical contact through skin-to-skin contact, and promotion of emotional interaction. (11–13) These strategies are opportunities for parents to learn to understand their infant's behaviour and to respond to them appropriately, encouraging the feeling that the infant "belongs" to them. (14,15) (see TEG Education & training)

*Benefits*

*Short-term benefits*

- Facilitated parental attachment behaviour (14,16) and the process of becoming a parent (10,12,17)
- Increased pleasure in interaction with the infant (14)
- Facilitated recognition and response to the infant's signals (18–22)
- Increased rate of breastfeeding (13,14)
- Improved neurobehaviour (11,23–25)
- Reduced length of hospital stay (10,26,27)



### *Long-term benefits*

- Improved neurodevelopmental outcome (21,22,28–30)
- Improved physiologic stability and cognitive development (16)
- Increased quality of parent-infant interaction (3,16)
- Improved emotional well-being of infants and parents (12,13)
- Reduced maternal depression and/or anxiety (10,16)

### *Components of the standard*

<b>Component</b>	<b>Grading of evidence</b>	<b>Indicator of meeting the standard</b>
<b>For parents and family</b>		
1. Parents are informed by healthcare professionals about strategies to enhance bonding.	B (High quality)	Patient information sheet
2. Parents are facilitated to initiate intimate contacts with their infant, as soon as possible and guided in their understanding of their infant's behaviour. (1,13,31–33)	A (Moderate quality) B (Moderate quality)	Parent feedback
<b>For healthcare professionals</b>		
3. A unit guideline on early parent-infant contact, including both mother and father/partner's needs is adhered to by all healthcare professionals. (1,12,13,34–36)	A (Moderate quality) B (High quality)	Guideline, parent feedback
4. Training on facilitation of parent-infant bonding is attended by all responsible healthcare professionals.	B (High quality)	Training documentation
<b>For neonatal unit</b>		
5. A unit guideline on early parent-infant contact, including both mother and father/partner's needs is available and regularly updated. (1,12,13,34–36)	A (Moderate quality) B (High quality)	Guideline, parent feedback
6. The unit design supporting early contact, closeness and parent-infant intimacy is ensured. (see TEG NICU design)	B (Moderate quality)	Audit report
<b>For hospital</b>		
7. Training on facilitation of parent-infant bonding is ensured.	B (High quality)	Training documentation



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| 8. Psychological support to promote bonding is ensured. (see TEG Infant- & family-centred developmental care) | A (Moderate quality)<br>B (Moderate quality) | Audit report |
|---|--|--------------|

For health service

N/A

### *Where to go – further development of care*

Further development	Grading of evidence
For parents and family	
<ul style="list-style-type: none"> <li>Recognise the role of siblings and grandparents in a family-centred bonding support. (31,33)</li> </ul>	A (Moderate quality) B (High quality)
For healthcare professionals	
N/A	
For neonatal unit	
N/A	
For hospital	
N/A	
For health service	
<ul style="list-style-type: none"> <li>Develop strategies on implementing Couplet Care. (26,37)</li> </ul>	A (Moderate quality) B (Moderate quality)

### *Getting started*

Initial steps
For parents and family
<ul style="list-style-type: none"> <li>Parents are verbally informed by healthcare professionals about the importance of early skin-to-skin contact and bonding.</li> <li>Greatest possible closeness between the parents and their infant is ensured.</li> </ul>
For healthcare professionals
<ul style="list-style-type: none"> <li>Attend training to facilitate parent-infant bonding.</li> </ul>
For neonatal unit
<ul style="list-style-type: none"> <li>Develop and implement a unit guideline on early parent-infant contact, including both mother and father/partner's needs.</li> <li>Develop information material on the importance of early skin-to-skin contact and bonding for parents.</li> <li>Adapt the available architecture with adequate furniture supporting parental presence and interaction with their infant. (see TEG NICU design)</li> <li>Provide professional (e.g. psychologist) emotional support for parents.</li> </ul>
For hospital
<ul style="list-style-type: none"> <li>Support healthcare professionals to participate in training to facilitate parent-infant bonding.</li> </ul>
For health service
<ul style="list-style-type: none"> <li>N/A</li> </ul>



### *Description*

Infants who are born very preterm are especially fragile and show neuro-behavioural immaturity, even in absence of critical medical conditions or perinatal injuries. (38,39) Because of this vulnerability, preterm infants receive care in a NICU, during which they may be separated from the mother soon after birth. (1) Separation limits the opportunities to engage in intimate mother-infant physical contacts (2), and can alter the emergence of an affectionate bonding between parent and infant. (3) For example, oxytocin secretion, which is generally acknowledged as the main hormone involved in affectionate bonding between parents and infants (40), is highly affected by the early mother-infant contact after birth. (41) It is plausible that NICU-related maternal separation might impair normally occurring oxytocin-related parenting activities and caregiving actions, leading to reduced feelings of maternal bonding. (42) Early separation has long lasting effects on emotional programming, neurodevelopmental outcomes, and parental health. (3,6–9) Preterm mothers show a distinct pattern of brain activation in response to viewing own infants, compared to those of full-term mothers. (43) Parental bonding represents stable feelings toward the infant, including a sense of ownership, competence and affection. (16,44,45) Bonding may be considered to be a process which emerges during pregnancy and can be critically disrupted by premature birth and early separation. (2,4,26) Bonding in mothers of very preterm infants is characterised by a subjective experience of being less intimate with the infant, which in turn moderates the pattern of infant difficulties in socio-emotional stress regulation at 3-months of age. (46)

Obstacles to bonding include infant-related factors (e.g., immaturity, prolonged need of respiratory support, sedation etc.), parent-related factors (e.g., poor maternal health, uncomfortable in touching the infant, etc.), family related factors (e.g., long distance from home, need to take care of the siblings, ...etc.), and environment-related factors (e.g., lack of support from NICU staff, restrictive access to the baby). (1,5) Parent-to-infant bonding may be sustained by very different strategies. (10–13,16,39) The facilitation of skin-to-skin contact or Kangaroo care can support its development, as parents may learn to read signals of their own baby and start responding adequately. Engaging in caregiving activities during the NICU stay has the advantage of facilitating parents of a fragile and immature infant with the supervision of experts. The development of preterm infants and parental well-being are enhanced if skin-to-skin contact is supported early during hospitalisation. (1,47) Nonetheless, the fostering of the early intimate contact between parents and infants needs to be tailored to parental needs and address their concerns, since parents may have anxieties about holding the baby that should be listened and addressed by NICU staff. (20) NICU staff can successfully support parent-to-infant bonding, recognising differences between mothers and fathers in the style of establishing affective bonding toward the infant. (12,15,34–36) Moreover, the healthcare professionals help parents feelings that the infant “belongs” to them, using the words “mother” and “father”. (2,12) 24-hour access for parents, siblings and grandparents facilitates the process and it is maximised through the adoption of family-centred, single-family NICU architectures. A homelike design is optimal to grant for parent-infant intimacy and sharing among parents and families. (26,48,49)

### *Source*

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