

Topic Expert Group: Medical care and clinical practice

Postnatal support of transition and resuscitation

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Target group

Newborn infants, pregnant women with risk factors, their partners, and parents

User group

Healthcare professionals (including community midwives), neonatal units, hospitals, and health services

Statement of standard

Support of postnatal transition to extrauterine life is based on internationally consented guidelines, which are based on scientific evidence, and is performed in an appropriate structured and equipped environment by trained personnel.

Rationale

Postnatal adaptation to extrauterine life is a complex process during which air breathing is established and circulatory changes take place. Difficulties may occur with transition in situations such as preterm birth or perinatal asphyxia. These situations account for much of the associated neonatal mortality and morbidity. (1–4) Certain problems that arise during birth may be anticipated. (5) Transition should be supported appropriately and resuscitation instituted when necessary. High-risk deliveries should be attended by individuals trained in advanced neonatal resuscitation, but all healthcare professionals attending deliveries should be trained in basic neonatal resuscitation techniques.

The International Liaison Committee on Resuscitation (ILCOR) provides comprehensive recommendations for the management at transition and resuscitation of the newborn infant, which are adapted by international bodies such as the American Heart Association (AHA) and the European Resuscitation Councils (ERC). (6–8) These recommendations are updated regularly, translated and adapted by the respective regional or national organisations. A recent survey showed that available equipment and clinical practices recommended by the international guidelines are already implemented by centers in Europe, but a large variance still persists. (9) Training in the practical skills of resuscitation should be undertaken in all maternity settings, including all responsible disciplines, using a neonatal resuscitation courses (see Education & training).

Benefits

Short-term benefits

- Reduced mortality and morbidity (6–8)

Long-term benefits

- Improved neurodevelopmental outcome (6–8)

Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family		
1. Pregnant women with risk factors and their partners are informed by healthcare professionals and counseled before birth (see Birth & transfer).	B (High quality)	Patient information sheet
2. Parents of infants at high-risk for resuscitation are informed by healthcare professionals about the possible need for support at transition and its risks. They are informed about the outcome of equivalent infants cared for in the current facility and if applicable are given alternatives.	B (Moderate quality)	Patient information sheet
3. Parents are invited to be present during resuscitation. (8,10,11)	A (High quality)	Guideline
4. Parents are provided with opportunities to debrief following a resuscitation of their infant.	B (High quality)	Clinical record, parent feedback
For healthcare professionals		
5. A guideline on resuscitation, including post-resuscitation care, is adhered to by all healthcare professionals. (6–8)	B (High quality)	Guideline
6. Training on current resuscitation recommendations, guidelines and local equipment is attended by all responsible healthcare professionals using accredited courses (see Education & training). (6–8)	A (Moderate quality) B (High quality)	Training documentation
7. Equipment needed for resuscitation is regularly checked.	B (High quality)	Audit report
For neonatal unit		
8. A guideline on neonatal resuscitation (aligned to relevant (inter)national resuscitation guidelines), including post-resuscitation care, and local arrangements for transfer to expert services where necessary, is available and regularly updated. (6–8)	B (High quality)	Guideline

9. Information to support emergency calls is clearly displayed within the delivery suite and neonatal unit to cover: <ul style="list-style-type: none"> • further help (manpower) • consultation (knowledge) • neonatal transport 	B (High quality)	Guideline
10. Team debriefing after resuscitation is provided.	B (High quality)	Healthcare professional feedback
11. Healthcare professionals trained in resuscitation are available throughout the 24 hours.	B (High quality)	Audit report

For hospital

12. Training on resuscitation including simulation scenarios is ensured.	B (High quality)	Training documentation
13. Facilities for appropriate resuscitation and for resuscitation training (e.g. mannequins for simulation) are provided. (12,13)	A (High quality) B (High quality)	Audit report

For health service

14. A national guideline on neonatal resuscitation is available and regularly updated.	B (High quality)	Guideline
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Where to go – further development of care

Further development

Grading of evidence

For parents and family

N/A

For healthcare professionals

<ul style="list-style-type: none"> • Video recording of transition management is conducted and structured feedback is given, using video recording of resuscitation situations for learning purposes demands good debriefing skills, clear local policy concerning archiving and medico-legal implications of the video material. (14) 	B (Moderate quality)
<ul style="list-style-type: none"> • Elicit options for providing emergency telemedicine consultation for neonatal resuscitation. (15) 	A (Low quality)

For neonatal unit

- Establish debriefing rounds for resuscitation situations, including interdisciplinary work with psychologist for complex cases. B (Moderate quality)
- Establish regular quality meetings within one week after delivery to check defined quality parameters of pre- and postnatal management (antenatal lung maturation, admission temperature etc.) together with nurses, midwives, obstetricians, neonatologists, psychologists, alternatively cases of complex deliveries can be debriefed collectively to address general or structural aspects that need quality improvement. B (Moderate quality)

For hospital

- Establish the chance of bonding with the mother immediately after successful support of postnatal transition. B (High quality)

For health service

- Support research into new techniques and approaches for neonatal resuscitation. B (High quality)

Getting started

Initial steps

For parents and family

- Parents are verbally informed by healthcare professionals about resuscitation.

For healthcare professionals

- Offer prenatal counseling by neonatologists.
- Attend regular training on basic neonatal resuscitation, for example a local Newborn Life Support course provided by the ERC.
- Establish centralisation for high-risk deliveries in advance.

For neonatal unit

- Develop and implement a guideline on resuscitation.
- Develop information material on neonatal transition phase and potential resuscitation for parents.
- Provide adequate training for healthcare professionals.

For hospital

- Support healthcare professionals to participate in resuscitation training.
- Support healthcare professionals in implementing measures for quality improvement.

For health service

- Develop and implement a national guideline on neonatal resuscitation.

Source

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Lifecycle

5 years/next revision: 2027

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