



Topic Expert Group: Patient safety and hygiene practice

Nurse staffing in neonatal intensive care

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Target group

Infants requiring intensive care and parents

User group

Healthcare professionals, neonatal units, hospitals, and health services

Statement of standard

Nurse staffing levels reflect the needs of the infants they are caring for, which include one to one nursing during intensive care and one to two nursing during intermediate care.

Rationale

At present, nurse staffing levels vary widely between neonatal services. (1,2) There is evidence that insufficient nursing numbers are associated with increased mortality and increased infection rates. (3–9) Data indicate that provision of sufficient nursing staff will facilitate the timely delivery of neonatal care (3), allow for better prevention of nosocomial infections (10–12), result in better compliance with set oxygen saturation targets⁵, and improved hand hygiene compliance. (13) There is also a relationship between the proportion of one to one nursing achieved and mortality. (14)

Evidence-based standards in this area include:

- an agreed proportion of nurses working in the NICU should have ≥ 3 years work experience in a NICU or completed post-registration education in intensive care (15,16)
- a nurse-to-infant ratio of one to one (15,16) (one nurse for one infant) for infants requiring intensive care, of one to two (15,16) (one nurse for two infants) for infants needing intermediate care, and a ratio of at least one to four for all infants requiring special care (15)
- in addition to nursing staff, support should be available from professionals with specific expertise in neonatal practice in the following areas: social work, psychology dietetics, physiotherapy, speech and language therapy, pharmacy, as well as nursing aids (15–20) (see TEG Infant-and family-centred developmental care)

Benefits

Short-term benefits

- Timely delivery of neonatal care (3)
- Reduced risk of nosocomial infections (10–12)
- Improved compliance with set oxygen saturation targets in infants (5)
- Improved hand hygiene compliance (13)
- Reduced neonatal mortality (8)



Long-term benefits

- Improved long-term outcomes (6)

Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family		
1. Parents are supported to be the primary caregiver.	B (High quality)	Parent feedback
For healthcare professionals		
2. Patient's care has priority over administrative and housekeeping tasks for nurses in clinical care.	B (High quality)	Guideline
For neonatal unit		
3. A unit guideline on nurse staffing requirements is available and regularly updated.	B (High quality)	Guideline
4. Sufficient nurse staffing numbers to provide appropriate levels of neonatal care is ensured: (15,16) <ul style="list-style-type: none">• One nurse to one patient for intensive care (14)• One nurse to two patients for intermediate care• One nurse to four patients during special care• In addition, one nurse to provide shift coordination	A (High quality) C (Moderate quality)	Audit report
For hospital		
5. Sufficient nurse staffing numbers for care and continuing professional development and education of staff is ensured. (15,16) (see TEG Education & training)	A (Moderate quality)	Audit report, training documentation
For health service		
6. A national guideline on nurse staffing requirements is available and regularly updated.	B (High quality)	Guideline
7. The staffing required by a unit is defined according to the number of beds and the care level of the beds. (15,16)	A (Moderate quality) C (Moderate quality)	Audit report



8. Adequate national or regional training places on accredited educational courses are ensured. (see TEG Education & training)	A (Moderate quality) B (High quality)	Audit report
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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 N/A	
For neonatal unit N/A	
For hospital and health service	
<ul style="list-style-type: none"> Develop initiatives to make neonatal nursing attractive as a career option. 	B (High quality)
<ul style="list-style-type: none"> Develop evidence-based standards for medical and allied professional staffing. (21) 	A (High quality)
<ul style="list-style-type: none"> Agree and implement a national or regional policy to ensure appropriate nurse staffing numbers. (15) 	A (High quality)

Getting started

Initial steps
For parents and family
<ul style="list-style-type: none"> National parent representatives contribute to national consensus meetings on neonatal staffing.
For healthcare professionals N/A
For neonatal unit
<ul style="list-style-type: none"> Develop and implement a unit guideline on nurse staffing requirements. Inform health services and stakeholders about the importance of appropriate NICU staff numbers.
For hospital
<ul style="list-style-type: none"> Develop and educate nursing workforce. Facilitate development of neonatal expertise by allied professionals.
For health service
<ul style="list-style-type: none"> Develop and implement a national guideline on nurse staffing requirements. Organise expert stakeholder groups on a national level to reach consensus about nursing, medical and allied professional neonatal staffing requirements and their implementation.



Source

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Lifecycle

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