



Topic Expert Group: Patient safety and hygiene practice

Environmental hygiene in the NICU

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Target group

Infants, parents, and families

User group

Healthcare professionals, neonatal units, hospitals, and health services

Statement of standard

High standards of environmental hygiene and cleaning are ensured to reduce the occurrence of infection and complications.

Rationale

Neonatal late-onset sepsis is one of the most significant causes of morbidity and mortality mainly among very preterm infants. (1–12) Pathogen contamination of surfaces is a major source of pathogen contamination in neonatal wards. Personal materials such as mobile phones, jewellery are potential sources of contamination. (see TEG Patient safety & hygiene practice) Subsequent hand carriage of pathogens is associated with nosocomial infections.

The implementation of policies covering environmental hygiene, incubator cleaning, cleaning of devices (e.g. monitors and probes) has been shown to decrease the risks of spreading bacteria. The widespread use of disposable (single use) devices and materials may further improve the hygiene standards and decrease the occurrence of microbial contamination. (1,3,10,13–18)

Benefits

Short-term benefits

- Reduced number of infections (2,3,6,11,19)
- Reduced length of NICU stay (20)
- Reduced healthcare costs (3,7,20)

Long-term benefits

- Earlier discharge and reduced stress for families (20)
- Reduced exposure to antibiotics (11,21,22)
- Improved neurodevelopmental outcome (3,19,21)
- Reduced healthcare costs (20)

Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family		
1. Parents and family are informed by healthcare professionals about the	A (Moderate quality) B (High quality)	Patient information sheet

powered by





hygiene and personal items policy, why it is required and what is involved (e.g. jewellery, mobile phone). (3,7,23) (see TEG Patient safety & hygiene)

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| 2. Parents are asked by healthcare professionals to instruct the own family and relatives to apply NICU hygiene guidelines. (see TEG Patient safety & hygiene) | B (Moderate quality) | Parent feedback |
|--|----------------------|-----------------|

For healthcare professionals

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|---|--|------------------------|
| 3. A unit guideline for hygiene including specified methods and schedules for cleaning of surface and equipment is adhered to by all staff. | B (High quality) | Guideline |
| 4. Training on environmental hygiene policy and identification of poor practice is attended by all staff. (3,7) | A (Moderate quality)
B (High quality) | Training documentation |
| 5. Training on cleaning on yearly basis is attended by all responsible staff. | B (High quality) | Training documentation |

For neonatal unit

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|---|--|--------------|
| 6. A unit guideline for hygiene including specified methods and schedules for cleaning of surface and equipment is available and regularly updated. (3,14–18,24–26) | A (Moderate quality)
B (High quality) | Guideline |
| 7. A schedule of cleaning procedures and their monitoring is continuously available. (3,15–17,25,26) | A (Moderate quality) | Audit report |
| 8. An experienced person responsible for environmental hygiene and monitoring is identified. | B (Moderate quality) | Audit report |

For hospital

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|--|----------------------|------------------------|
| 9. Training on environmental hygiene policy and identification of poor practice is ensured. (3,7,16,17,24) | B (High quality) | Training documentation |
| 10. Training of staff responsible for cleaning is ensured on yearly basis. | B (High quality) | Training documentation |
| 11. The hygiene department supervises and maintains environmental hygiene. | B (Moderate quality) | Audit report |



For health service

12. A national guideline for hygiene including specified methods and schedules for cleaning of surface and equipment 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 N/A	
For neonatal unit	
<ul style="list-style-type: none">Provide a limited number of dedicated persons for the cleaning of the unit.	B (Moderate quality)
For hospital	
<ul style="list-style-type: none">Provide a limited number of dedicated persons for the cleaning of the unit.	B (Moderate quality)
For health service N/A	

Getting started

Initial steps
For parents and family
<ul style="list-style-type: none">Parents and family are verbally informed by healthcare professionals about the hygiene and personal items policy, why it is required and what is involved (e.g. jewellery, mobile phone).
For healthcare professionals
<ul style="list-style-type: none">Attend training on environmental hygiene policy and identification of poor practice.
For neonatal unit
<ul style="list-style-type: none">Develop and implement a unit guideline for environmental hygiene including instructions and schedules for the cleaning of specific items of equipment.Develop information material on hygiene and personal items policy for parents and family.Monitor nosocomial infection rates.
For hospital
<ul style="list-style-type: none">Support healthcare professionals to participate in training on environmental hygiene policy and identification of poor practice.
For health service
<ul style="list-style-type: none">Develop and implement a national guideline for hygiene including specified methods and schedules for cleaning of surface and equipment.



- Develop hygiene education programmes for healthcare professionals

Description

Additional information can be found online:

http://ecdc.europa.eu/en/healthtopics/Healthcare-associated_infections/guidance-infection-prevention-control/Pages/guidance-hand-hygiene-healthcare.aspx

<https://www.cdc.gov/infectioncontrol/guidelines/environmental/index.html>

<https://ecdc.europa.eu/en/publications-data/directory-guidance-prevention-and-control/controls-in-hospitals>

Source

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