



*Topic Expert Group: Patient safety and hygiene practice*

**Hand hygiene**

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*Target group*

Infants, parents, families, and everybody entering the neonatal unit

*User group*

Healthcare professionals, neonatal units, hospitals, and health services

*Statement of standard*

Hand hygiene is practiced consistently according to the guidelines in order to reduce the spread of hand carried pathogens.

*Rationale*

Newborn infants admitted to a neonatal unit especially very low birth weight infants (<1500 g) and infants subjected to intensive care are at risk for nosocomial or hospital acquired infections due to the immature host defence and invasive procedures. (1) The incidence of nosocomial bloodstream infections among these infants in neonatal intensive care units world-wide varies between 11 and 53%. (2) These infections are associated with increased mortality and morbidity, and prolonged hospital stay, compared to non-infected infants. (1,3–5)

Hand hygiene to reduce nosocomial bloodstream infections is recommended by the leading institutions like the World Health Organisation (WHO) and Centers of Disease and Infection Control (CDC), as well as the European Center of Disease and Infection Control (ECDC). The WHO's campaign 'my five moments for hand hygiene' is currently internationally regarded as standard of care. (6) High compliance with hand hygiene protocols among healthcare professionals is recognised as one of the most important means of prevention of hospital acquired infections. (2,7,8)

*Benefits*

*Short-term benefits*

- Reduced risk of nosocomial infection (2,7,8) (see TEG Medical care & clinical practice)
- Reduced risk of mortality and morbidity (intraventricular haemorrhage (IVH) (see TEG Medical care & clinical practice), necrotising enterocolitis (NEC) and retinopathy of prematurity (ROP)) (see TEG Medical care & clinical practice) (1,2,4)

*Long-term benefits*

- Reduced risk of antibiotic resistant bacteria (consensus)
- Reduced risk of chronic lung disease (2,4)
- Reduced risk of hearing loss (2,4)
- Reduced risk of cerebral palsy (2,4)
- Reduced risk of poor neurodevelopmental outcome (4)



### *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 and instructed by healthcare professionals about hand hygiene according to the World Health Organisation's (WHO) 'my five moments of hand hygiene'. (6,9)	A (High quality) B (High quality)	Parent feedback, patient information sheet
2. Parents are asked to instruct the own family and relatives to apply hand hygiene guidelines.	B (Moderate quality)	Patient information sheet
3. Rings, watches, and bracelets are not to be worn in the neonatal unit.	B (Moderate quality)	Patient information sheet
<b>For healthcare professionals</b>		
4. A unit guideline on hand hygiene is adhered to by all healthcare professionals. (2)	A (High quality) B (High quality)	Guideline
5. Training on hand hygiene is attended by all responsible healthcare professionals. (2)	A (Moderate quality) B (High quality)	Training documentation
6. Hand hygiene according WHO's 'my five moments of hand hygiene' is applied. (6)	A (High quality)	Guideline
7. Single use non-sterile gloves are used where there is risk of body fluid contact. (10)	A (High quality)	Guideline
8. Single use non-sterile gloves, gown, and mask are used where there is risk of multi resistant bacteria. (11)	A (High quality)	Guideline
9. Artificial nails, rings, watches, bracelets, ties and long sleeves are not to be worn in the neonatal unit. (12)	A (Moderate quality)	Guideline
<b>For neonatal unit</b>		
10. A unit guideline on hand hygiene is available and regularly updated. (13,14)	A (High quality) B (High quality)	Guideline



11. Regular, and at least annually, audit and feedback on hand hygiene protocol adherence are conducted.	A (Low quality)	Audit report
12. A designated healthcare professional to promote hygiene is available.	B (Moderate quality)	Audit report
<b>For hospital</b>		
13. Training on hand hygiene is ensured.	B (High quality)	Training documentation
14. Hand hygiene facilities e.g. sinks and disinfection solutions are provided near the patient. (15)	A (Moderate quality)	Audit report
<b>For health service</b>		
15. A national guideline on hand hygiene is available and regularly updated. (13,14)	A (High quality) B (High quality)	Audit report, guideline

*Where to go – further development of care*

<b>Further development</b>	<b>Grading of evidence</b>
<b>For parents and family</b>	
• Report on hand hygiene adherence.	A (Low quality)
<b>For healthcare professionals</b>	
• Report on hand hygiene adherence.	A (Low quality)
<b>For neonatal unit</b>	
• Establish an integrated hand hygiene adherence system that electronically provides quality feedback on hand hygiene performance.	A (Moderate quality)
<b>For hospital</b>	
• Compare adherence with other neonatal units.	A (Low quality)
<b>For health service</b>	
• Report on hand hygiene adherence.	A (Low quality)

*Getting started*

<b>Initial steps</b>
<b>For parents and family</b>
• Parents and family are verbally informed and instructed by healthcare professionals about hand hygiene.
• Family and relatives are informed about hand hygiene by parents.
<b>For healthcare professionals</b>
• Attend training on hand hygiene.



#### For neonatal unit

- Develop and implement a unit guideline on hand hygiene.
- Develop information material on hand hygiene for parents and family.
- Develop a formal education programme to cover all aspects of hand hygiene.
- Measure adherence to hand hygiene guideline on regular basis.
- Monitor nosocomial infection rate.

#### For hospital

- Support healthcare professionals to participate in training on hand hygiene.

#### For health service

- Develop and implement a national guideline on hand hygiene.

### Source

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*Lifecycle*

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