

Local Guideline



Health
Hunter New England
Local Health District

Environmental Cleaning in NICU

Sites where Local Guideline and Procedure applies	Neonatal Intensive Care Unit (NICU) JHCH
This Local Guideline and Procedure applies to:	
1. Adults	No
2. Children up to 16 years	No
3. Neonates – less than 29 days	Yes
Target audience	All clinicians caring for infants in NICU
Description	Provides guidance for to clinical and support staff for the daily cleaning requirements of equipment and the environment, and on discharge from NICU

[Go to Guideline](#)

Keywords	NICU, SCU, JHCH, neonate, newborn, neonatal, cleaning, disinfection, equipment, neutral detergent, terminal clean
Document registration number	JHCH_NICU_01.02
Replaces existing document?	Yes
Registration number and dates of superseded documents	Cleaning of clinical areas & equipment in NICU JHCH_NICU_03.12
Related Legislation, Australian Standard, NSW Ministry of Health Policy Directive or Guideline, National Safety and Quality Health Service Standard (NSQHSS) and/or other, HNE Health Document, Professional Guideline, Code of Practice or Ethics:	
<ul style="list-style-type: none"> • NSW Health Policy Directive PD2017_013 Infection Prevention and Control Policy • NSW Health Policy Directive PD2020_022 Cleaning of the Healthcare Environment • Clinical Excellence Commission 2020 Infection Prevention and Control Practice Handbook • HNELHD Policy Compliance Procedure PD2017_013:PCP 4 Cleaning of Non-Critical, Reusable Medical Equipment • HNELHD Local Procedure JHH_JHCH_BH_0109: Manual cleaning of instruments and other equipment 	
Position responsible for and document authorised by	Jason Simpson, General Manager/Director of Nursing, JHCH/CYPFS
Contact person	Natalie Butchard, Manager Newborn Services, NICU JHCH
Contact details	Natalie.butchard@health.nsw.gov.au
Date authorised	14/01/2021
This document contains advice on therapeutics	No
Issue date	14/01/2021
Review date	14/20/2024

Note: Over time links in this document may cease working. Where this occurs please source the document in the PPG Directory at: <http://ppg.hne.health.nsw.gov.au/>

PURPOSE AND RISKS

This local guideline has been developed to provide guidance to clinical staff in Neonatal Intensive Care Unit at John Hunter Children's Hospital including Technical Assistants and Housekeeping staff about all aspects of cleaning within NICU to meet Ministry of Health Directive and standards. The guideline will outline what needs to be cleaned, how frequently, with what specific product, and by whom. This will include routine cleaning of the environment and equipment, as well as cleaning required when a patient is discharged or transferred out of NICU.

The risks are:

- *Breach of NSW Health Policy Directive*
- *Risk of transmission of microorganisms which could lead to colonization/infection or outbreaks, compromising the patient*
- *Inappropriate use of cleaning products*

These risks are minimised by:

- *Environmental cleaning of patient bed spaces according to policy*
- *Cleaning of hospital equipment as per standard*
- *Standardised approach to all cleaning of equipment and space, with clear delineation of responsibility*

Any unplanned event resulting in, or with the potential for injury, damage or other loss to infants/staff/family as a result of this procedure must be reported through the Incident Management System and managed in accordance with the NSW Health Policy Directive PD2020_020: Incident Management Policy. This would include unintended injury that results in disability, death or prolonged hospital stay.

*It is mandatory for staff to follow relevant: "Five moments of hand hygiene", infection control, moving safely/safe manual handling, documentation practices and to use HAIDET for patient/carer communication: **H**and hygiene **A**cknowledge, **I**ntroduce, **D**uration, **E**xplanation, **T**hank you or closing comment.*

Risk Category: *Clinical Care & Patient Safety*

CLINICAL PROCEDURE SAFETY LEVEL

Every clinician involved in the procedure is responsible for ensuring the processes for clinical procedure safety are followed. The following level applies to this procedure (click on the link for more information):

[Level 1 procedure](#)

CONTENT

[Environmental Cleaning](#)

[Principles of Cleaning and Disinfection](#)

[Cleaning Requirements for Patient Bed Spaces](#)

[Cleaning Requirement for Room Environment](#)

[Other Equipment used in Patient Care](#)

[Cleaning Requirement for NICU Environment](#)

[Cleaning Following Patient Discharge/Transfer](#)

[Cleaning for Isolation for Multi-resistant Organisms](#)

[Cleaning Requirement for Isolated Patient Bed Space](#)

[Cleaning Requirement for Isolated Room Environment](#)

ENVIRONMENTAL CLEANING SUMMARY

- All clinical and support staff are responsible for adhering to cleaning principles to reduce environmental transmission risks to patients in healthcare setting
- Clinicians that use or transfer equipment/items between patients are responsible for cleaning/disinfection
- All equipment and environmental spaces utilised for isolation for Multi-resistant Organisms require terminal cleaning post use

GUIDELINE

While not requiring mandatory compliance, staff must have sound reasons for not implementing standards or practices set out within guidelines issued by HNE Health, or for measuring consistent variance in practice.

Introduction

Neonatal Intensive Care is considered an area of [extreme risk](#). Extreme risk areas represent areas that pose the greatest risk of transmission of infection. Patients in these areas are very susceptible to infection or are undergoing highly invasive procedures. In addition, surgical instruments and stock are stored in these areas. Cleaning outcomes must be achieved through the highest level of cleaning intensity and frequency.

Healthcare facilities are to be:

- Visibly clean and free from non-essential items and equipment to facilitate effective cleaning
- Well maintained and in a good state of repair
- Routinely cleaned in accordance with a documented cleaning schedule

Environmental Cleaning

[Top](#)

Daily routine cleaning requires input from several staff members within the NICU. Outlined consists of but not limited to, equipment and environmental cleaning required daily.

Staff must wear appropriate PPE when using cleaning products (e.g. gloves, aprons etc.), and approach cleaning in line with the 5 principles outlined in Figure 1.

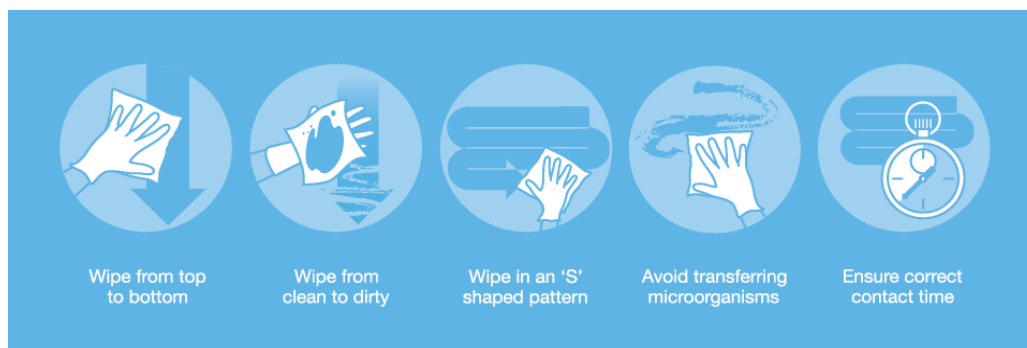


Figure 1: *The five principles of cleaning (Image from [gama healthcare](#))*

Principles of Cleaning and Disinfection

[Top](#)

- Any reusable equipment and accessories that comes into contact with a patient must be cleaned/disinfected between use
- Any single use items must be discarded following use
- Single patient use items need to be cleaned before reuse
- Clinicians that use or transfer equipment/items between patients are responsible for cleaning/disinfection

- All reusable equipment must be cleaned immediately if it becomes visibly soiled
- Product selection should include assessment on ease of cleaning such as smooth impervious surfaces, material and product compatibility
- Adhesive tape should not be applied to patient care equipment as it harbours microorganisms and serves as a vehicle for cross transmission and inhibits ability to clean
- Appropriate risk assessments, including a review of available manufacturer's recommendations and local procedures must be carried out prior to the disinfection of equipment with the correct detergent/disinfectant regardless of the use of cover or sheath to protect the item
- Where there is no manufacturer's recommendations available consult with local infection prevention and control team or unit delegate to determine required product cleaning method and frequency of cleaning

Cleaning Requirements for Patient Bed Spaces

[Top](#)

Cleaning requirements outlined below, with additional spot cleaning as required.

EQUIPMENT	FREQUENCY <i>(minimum requirement)</i>	CLEANING PRODUCT	RESPONSIBILITY
Crib (outside and including portholes)	Daily	Neutral detergent	Nurse
Monitor/Pendant	Daily	Neutral detergent	Nurse
NICVIEW™ Camera	Daily	Neutral detergent	Nurse
Examination Light	Daily	Neutral detergent	Nurse
Bedside Staff Bench	Daily	Neutral detergent	Nurse
Patient Trolley	Daily	Neutral detergent	Nurse
CPAP/Ventilator	Daily	Neutral detergent	Nurse
T-Piece Resuscitation Device (Neopuff™)	Daily	Neutral detergent	Nurse
IV Pumps	Daily	Neutral detergent	Nurse
Breast Pump	After use	Neutral detergent	Parent/Nurse
Patient Fridge; Interior/Exterior	Daily	Neutral detergent	Nurse (interior) Housekeeping (exterior)
Milk Warmer	Daily	Neutral detergent	Nurse

Parent Bench	Daily	Neutral detergent	Housekeeping
Bedside Phone/s	Daily	Neutral detergent	Nurse
Recliner	Daily	Neutral detergent	Housekeeping
Parent Chair	Daily	Neutral detergent	Housekeeping
Staff Chair	Daily	Neutral detergent	Housekeeping
Bedside Computer	Daily	Neutral detergent	Nurse
Care Board	Daily	Neutral detergent	Nurse

Note: Neutral detergent; wipes approved by the facility e.g. Clinell wipes or liquid neutral detergent

Cleaning Requirement for Room Environment

[Top](#)

Cleaning requirements outlined below, with additional spot cleaning as required.

ENVIRONMENT	FREQUENCY <i>(minimum requirement)</i>	CLEANING PRODUCT	RESPONSIBILITY
Sink	Daily	Cream cleanser	Housekeeping
Floors	Daily	Hot water/Neutral detergent	Housekeeping
Top of partition wall between beds	Daily	Neutral detergent	Housekeeping
Sharps Bins	Daily	Neutral detergent	Housekeeping
Garbage Bins	Daily	Neutral detergent	Housekeeping
Linen Trolley Skip/Frame	Daily	Neutral detergent	Housekeeping
Call Bell Buttons	Daily	Neutral detergent	Housekeeping

Other Equipment used in Patient Care

[Top](#)

In NICU other equipment is frequently used for patients, for example equipment from Allied Health staff and visiting clinicians/or personnel for hearing testing, general movement videos etc. It is the responsibility of the person using the equipment to ensure it is cleaned and when required disinfected between patients.

This includes the use of equipment for investigational testing such as ultrasound/X-Ray machines. It is an expectation the clinician using the equipment clean with neutral detergent prior and after use.

Cleaning Requirement for NICU Environment

[Top](#)

Cleaning requirements outlined below, with additional spot cleaning as required.

ENVIRONMENT	FREQUENCY <i>(minimum requirement)</i>	CLEANING PRODUCT	RESPONSIBILITY
Sinks	Daily	Cream cleanser	Housekeeping
Floors	Daily	Hot water/Neutral detergent	Housekeeping
Exterior of Cupboards/Benches	Daily	Neutral detergent	Housekeeping
Garbage Bins	Daily	Neutral detergent	Housekeeping
Bathroom Facilities	Daily	Neutral detergent	Housekeeping
Breast Milk Freezers; Interior/Exterior	Interior Weekly Exterior Daily	Hot water/Neutral detergent	Lactation Consultants (interior) Housekeeping (exterior)
PDHM Fridges	Interior Weekly Exterior Daily	Hot water/Neutral detergent	Lactation Consultants (interior) Housekeeping (exterior)

Cleaning for Isolation for Multi-resistant Organisms (MRO)

[Top](#)

Cleaning requirements outlined below, with additional spot cleaning as required.

Cleaning Requirement for Isolated Patient Bed Space

[Top](#)

EQUIPMENT	FREQUENCY <i>(minimum requirement)</i>	CLEANING PRODUCT	RESPONSIBILITY
Monitor Pendant	Daily	Disinfection/Terminal clean	Nurse
Monitor Only		Neutral detergent	
NICVIEW Camera	Daily	Disinfection/Terminal	Nurse

		clean	
Examination Light	Daily	Disinfection/Terminal clean	Nurse
Bedside Staff Bench	Daily	Disinfection/Terminal clean	Housekeeping
IV Pumps	Daily	Disinfection/Terminal clean	TA
Breast Pump	After use	Disinfection/Terminal clean	Parent/Nurse
Patient Fridge; Exterior/Interior	Daily	Disinfection/Terminal clean	Housekeeping
Milk Warmer	Daily	Disinfection/Terminal clean	Nurse
Parent Bench	Daily	Disinfection/Terminal clean	Housekeeping
Bedside Phone	Daily	Disinfection/Terminal clean	Nurse
Recliner	Daily	Disinfection/Terminal clean	Housekeeping
Parent Chair	Daily	Disinfection/Terminal clean	Housekeeping
Care Board	Daily	Disinfection/Terminal clean	Nurse
Staff Chair	Daily	Disinfection/Terminal clean	Housekeeping
Bedside Computer	Daily	Disinfection/Terminal clean	Nurse

Cleaning Requirement for Isolated Room Environment

[Top](#)

Cleaning requirements outlined below, with additional spot cleaning as required

ENVIRONMENT	FREQUENCY <i>(minimum requirement)</i>	CLEANING PRODUCT	RESPONSIBILITY
Sink	Daily	Cream cleanser/ Sodium hypochlorite	Housekeeping
Floor	Daily	Disinfection/Terminal clean	Housekeeping
Top of partition wall between beds	Daily	Disinfection/Terminal clean	Housekeeping

Sharps Bin	Daily	Disinfection/Terminal clean	Housekeeping
Garbage Bin	Daily	Disinfection/Terminal clean	Housekeeping
Linen Trolley Skip/Frame	Daily	Disinfection/Terminal clean	Housekeeping
Call Bell Buttons	Daily	Disinfection/terminal clean	Housekeeping

Note: Disinfection clean; approved disinfectant e.g. Oxivir or Sodium Hypochlorite

Cleaning Following Patient Discharge/Transfer

[Top](#)

Once a patient is discharged or transferred to another room, the entire bedspace should have a terminal clean, that is cleaned and disinfected. Nursing staff should inform Technical Assistants (TA) and Housekeeping staff as soon as possible about the pending move/discharge, to allow workflow management. NICU has cleaning staff available for all hours, outside 2am to 6am where cleaning support can be accessed via birthing suite JHH where required. This ensures housekeeping staff are available to clean bed spaces when moves/discharges occur including out of normal/business hours. Nursing staff must ensure all patients belongings are moved from the bed space i.e. check parent cupboards, empty patient milk fridges etc.

Equipment moved from the bedspace on discharge/transfer may be moved to the TA cleaning area and accessed through 'dirty' room. Nursing staff are required to strip equipment of consumables and dispose of same and remove linen from cribs/cots.

TA staff in NICU are responsible for cleaning bedside trolleys, and all equipment associated with patient admissions, when they are discharged from hospital. This includes humidicribs, open care centres and cots. Also included are respiratory support equipment such as CPAP, ventilators etc. Cleaning of the bedspace/room for patients isolated for MRO is undertaken by the nurse and housekeeping staff. All equipment used in this environment is to remain in the space until a plan is made with the TA team for cleaning. It must not be moved until a cleaning plan is made.

Auditing Requirements

[Top](#)

As an area of extreme risk, NICU must undertake monthly audits of all rooms at least once a month (see Figure 2). The audits are completed by a NICU delegate, an Infection Control representative and Housekeeping Services.

Functional area risk category	Minimum required frequency of auditing	Minimum acceptable quality level
Extreme	All rooms in all extreme risk areas are audited at least once a month	90%
High	All rooms in every high risk area are audited at least once every two months	88%
Medium	At least 50% of rooms in every medium risk area are audited at least once every three months, and all rooms at least every six months	85%
Low	All rooms in all low risk areas are audited at least once a year	80%

Figure 2: Cleaning Audit Frequency for Risk Categories ([Image from PD 2020_022](#))

IMPLEMENTATION PLAN

The clinical guideline will be:

- Circulated to Head of Department and Managers in NICU
- Circulated to the clinicians via the Children Young People and Families Network and the Women's Health and Maternity Network (where applicable)
- Made available on the intranet (PPG) and HNEKids website
- Presented at facility/unit meetings and tabled for staff to action

MONITORING AND AUDITING PLAN

- The person or leadership team approving the clinical guideline is responsible for ensuring timely and effective review of the guideline.
- Evaluation will require a review of the most current evidence as well as consideration of the experience of Neonatal staff at JHCH in the implementation of the clinical guideline.
- Data derived from monitoring and evaluation should inform the review of the clinical guideline either as required or scheduled.
- Implementation, education support and monitoring compliance be completed by local Clinical Educators and Unit Managers.
- Amendments to the guideline will be ratified by the Clinical Director and Manager of Newborn Services prior to final sign off by the JHCH.

CONSULTATION WITH KEY STAKEHOLDERS

AUTHOR:	Jo Davis, CNC Newborn Services, JHCH Natalie Butchard, Manager Newborn Services, NICU JHCH
REVIEWERS:	Jeff Deane, Nurse Manager, Infection Prevention Service Lisa Evans, Registered Nurse, NICU JHCH Dr Jo McIntosh, Neonatologist, NICU JHCH Vivienne Whitehead, Registered Nurse, NICU JHCH Michelle Stubbs, Research Nurse, NICU JHCH Joanne Patterson, Registered Nurse, NICU JHCH Julie Gregory, Clinical Nurse Educator, NICU JHCH Jenny Casey, Clinical Nurse Specialist, NICU JHCH
CONSULTATION:	Neonatal Team, Neonatal Intensive Care Unit, JHCH NICU Operational Planning & Management Committee JHCH Clinical Quality & Patient Care Committee
APPROVED BY:	Natalie Butchard, Manager Newborn Services, NICU JHCH Dr Larissa Korostenski, Head of Newborn Services, NICU JHCH Jason Simpson, General Manager/Director of Nursing, CYPFS

APPENDICES

1. Glossary & Abbreviations

REFERENCES

[NSW Health/Clinical Excellence Commission: Policies, Guidelines and Handbook, Healthcare Associated Infections](#)
[Australian Commission on Safety & Quality in Health Care: Recommendations for the control of carbapenemase-producing Enterobacteriaceae \(CPE\) 2017](#)
[CEC Environmental Cleaning Standard Operating Procedures](#)
[National Guidelines for the Prevention and Control of Infection in Healthcare \(2010\)](#)

FEEDBACK

Any feedback on this document should be sent to the Contact Officer listed on the front page.

APPENDIX 1**GLOSSARY & ABBREVIATIONS**

Acronym or Term	Definition
Cleaning	The removal of visible soil, inorganic and organic contamination from devices or a surface, using either the physical action of scrubbing with a surfactant/detergent and water, or with appropriate chemical agents
CPAP	Continuous Positive Airway Pressure
Disinfection	Destruction of pathogenic and other kinds of micro-organisms by thermal or chemical means
HNELHD	Hunter New England Local Health District
IV	Intravenous
JHCH	John Hunter Children's Hospital
JHH	John Hunter Hospital
MRO	Multi-resistant Organisms
NICU	Neonatal Intensive Care Unit
NICVIEW	Wed Based Camera System
SCU	Special Care Unit
TA	Technical Assistant
Terminal clean	2-step cleaning regime using ready-to-use disinfectant cleaner