

Communicable Disease Control Directorate Guideline

Guidelines for the management of infant feeding equipment in Western Australian healthcare facilities

Guideline 0007 / January 2025

These guidelines have been released by the Communicable Disease Control Directorate, Public and Aboriginal Health Division, Western Australian Department of Health, to provide consistent and evidence informed advice to agencies involved in the prevention of infections and management of communicable diseases in Western Australia.

ACKNOWLEDGEMENT OF COUNTRY AND PEOPLE

The Communicable Disease Control Directorate at the Department of Health acknowledge the Aboriginal people of the many traditional lands and language groups of Western Australia. We acknowledge the wisdom of Aboriginal Elders both past and present and pay respect to Aboriginal communities of today.

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1. Definitions / Acronyms

Term	Definition
Breast milk	Breast milk, including colostrum is classified as both a body fluid and a food. The United Nations Children's Fund and World Health Organisation definition specifically includes breast milk given directly from the breast and expressed breast milk given by other means.
Infant feeding equipment	All equipment used for the purpose of expressing and storing breast milk and feeding babies either expressed breast milk or infant formula e.g. breast pumps, breast shields, membranes, valves, teats, bottles and any storage containers.
Infant formula	Is formulated for infant use as the sole source of nutrition from birth.
Reusable equipment	A device that is approved for use by the Therapeutic Goods Administration (TGA) for more than one episode of use and for reuse on multiple patients.
Semi-critical item	An item according to the Spaulding Classification that has contact with intact non-sterile mucosa or non-intact skin.
Single patient use	A device that has been approved for use by the TGA for more than one episode of use on the one patient only. Unless the manufacturer specifies otherwise, devices labelled 'single patient use' can be reprocessed between uses for the same patient.
Single use	Means a device that has been approved for use by the TGA for only one episode of use on one patient only and is to be disposed of immediately after that use. These items must not be reused and are marked with the internationally recognised symbol

2. Purpose

The purpose of this *Guideline* is to ensure equipment used for infant feeding in healthcare facilities (HCFs) is safe and provides no risk to the mother and infant and has relevancy to all HCFs in Western Australia. The *Guideline* describes the minimum reprocessing standards required when reusable equipment is used for multiple infants and or mothers. In addition, recommendations are included for the management of equipment that is reused by the same mother or infant while in the HCF.

3. Introduction / Background

Equipment that is used for feeding infants and expressing breast milk must be managed in a manner to prevent contamination of equipment and transmission of infection. Breast milk

and infant formula is an excellent medium for the growth of bacteria, and poorly cleaned feeding equipment can be a source of infection. In addition, blood borne viruses have been detected in breast milk and, therefore, inadequately cleaned and disinfected shared equipment can pose a risk for disease transmission. ¹⁻⁵

The <u>Spaulding Classification</u> system was designed to address reprocessing of items that are reused for multiple patients.⁶ Infant feeding equipment that has contact with non-intact skin or intact mucous membrane and is reused for multiple mothers and infants in a hospital environment is classified as a semi-critical item under this system and therefore requires reprocessing after each use in accordance with Australian Standard *AS* 5369:2023 Reprocessing of reusable medical devices and other devices in health and non-health related facilities.⁷

There is scant evidence on the efficacy of cleaning and disinfection processes for infant feeding equipment used by the same mother/infant. The importance of removing residual breast milk is essential, followed by thorough rinsing to effectively remove pathogens.¹⁻⁴

Staff are to ensure that the appropriate infection prevention and control principles are applied when mothers utilise equipment for infant feeding or to express breast milk. This is an opportune time to promote the importance of hand hygiene to mothers in preventing the transmission of infection.

4. Requirements

4.1 General responsibilities

HCFs need to ensure that their staff are provided with clear direction on the type of equipment utilised in their service i.e. single use, single patient use, or reusable and the correct means of reprocessing.

HCFs need to ensure all semi-critical and non-critical infant feeding equipment is managed appropriately. Staff are to be trained and educated in correct handling and reprocessing methods and practice standard precautions at all times.

Where validated sterilisation processes or thermal disinfection cannot be undertaken, the use of single use or single-patient use items is required. Consideration must be given to environmental impacts and the cost of reprocessing against the use of single use items.^{10,11}

HCFs should ensure that any equipment labelled 'single use' is not reused and is discarded immediately after use.

Equipment labelled 'single patient use' can only be reused, in accordance with manufacturers' instructions, for the same patient and discarded when no longer required by that patient. When single patient use equipment is used, appropriate cleaning and reprocessing must occur between uses on the same patient.

HCFs need to ensure that all reusable equipment utilised for infant feeding is cleaned and adequately reprocessed after each use.

4.2 Reprocessing requirements for reusable equipment

The Therapeutic Goods Administration Australia (TGA) does not classify infant feeding equipment as a medical device. However, *AS5369:2023* outlines the specific guidelines for

the reprocessing, handling, and transportation of 'other device(s)' that are not considered a medical device(s). These devices are categorised as reusable and require reprocessing between uses, as per Spaulding's classification. ⁷

Semi-critical infant feeding equipment requires reprocessing by steam sterilisation or thermal disinfection prior to reuse.² Methods such as chemical disinfectants, commercial home sterilisers, boiling or microwave methods, are not suitable.

Automated equipment, such as washer/disinfectors, are recommended for use for thermal disinfection processes. HCFs undergoing construction or refurbishment should source and appropriately site this equipment and related accessories for decontaminating infant feeding equipment.

4.3 Reprocessing procedures for reusable equipment

Following the use of all semi-critical reusable infant feeding equipment, HCWs shall ensure the equipment is:

- disassembled and rinsed in cold water, ensuring all breast milk or infant formula residue is removed
- manually washed in a neutral detergent and warm water
- rinsed in hot water
- then either thermally disinfected or steam sterilised whichever is the approved method for the components by the manufacturer
- items that can be wrapped and sterilised offer more protection for the mother and infant as it minimises the risk of contamination from the environment or staff handling.

Automated washer/disinfectors that have a dedicated detergent wash cycle may be used to replace manual cleaning processes. The need to use reverse osmosis (RO) water in these machines for thermal disinfection of this equipment is not required, however, HCFs need to ensure regular assessment of their water supply is undertaken to ensure water quality will not adversely affect the function of these machines.

HCFs utilising washer / disinfectors should ensure the equipment:

- includes appropriate accessories to reprocess infant feeding equipment
- is suitable for the hospital setting
- is maintained and monitored according to the manufacturer's instructions.

The following temperature-time parameters are recommended to achieve thermal disinfection:

• 90°C for 1 minute

• 75°C for 30 minutes

• 80°C for 10 minutes

• 70°C for 100 minutes

4.4 Storage of equipment

Reusable infant feeding equipment that is not being used immediately after sterilisation or thermal disinfection should be stored dry in a clean container in a cupboard or refrigerator to protect from environmental contamination. Unwrapped equipment should be reprocessed every 24 hours if not used.

4.5 Cleaning of Single Patient Use (Personal Use) Equipment

Appropriate cleaning of single patient use equipment is essential after each use. Mothers should be instructed to wash their personal use equipment in an appropriate area e.g. formula preparation area, kitchen/pantry area, or at a minimum, utilise a dedicated utensil cleaning bowl and bottle brush in their room. Equipment is not to be washed in hand basins or infant baths in the patient's room.

Mothers should be instructed on the following cleaning procedure:

- the used equipment should be separated and rinsed thoroughly in cold water to remove any breast milk residue
- the equipment should then be washed in neutral detergent and warm water and then rinsed in hot water*
- all equipment should be air dried completely and stored in a clean container in the mother's room or in designated place in the nursery if the mother is not an inpatient
- any plastic storage boxes used by individual mother for storing breast pump equipment should be washed, rinsed and thoroughly dried every 24 hours
- all items must be clearly labelled with the mother's/infant's name.

*Alternatively, following initial cold-water rinse, the equipment can be mechanically washed in a washer / disinfector, if the equipment can be processed and remain clearly identifiable to the individual mother/infant i.e. some HCFs utilise baskets for each mother / infant that can be labelled.

4.6 Infant Formula

All HCFs should support breast feeding and promote its benefits as per the *Baby Friendly Health Initiative* and the National Health and Medical Research Council (2012) *Infant Feeding Guidelines*. When breast milk is unavailable for the infant in HCFs, ready to feed (RTF) formulas should be used as these are commercially sterile. HCFs need to ensure the safe provision, preparation, and storage of infant formula to prevent the risk of contamination and infection. Sterile RTF formula does not contain pathogenic microorganisms and so does not pose a risk of infection. These products are designated single use and the bottle and teat, and any remaining formula is to be discarded after each use. Decanting of liquid formula from a single use bottle to be used for a later feed should not occur.

Powdered infant formula (PIF) is not a sterile product and may be intrinsically contaminated with pathogens that can cause serious illness in infants. Powdered infant formula products are primarily regulated through Standard 2.9.1 and Schedule 29 of the *Australia New Zealand Food Standards Code (the Code)* and have the most prescriptive requirements of any food category. Inappropriate preparation and handling of reconstituted PIF may provide conditions for these pathogens to multiply, which increases the risk of infection. PIF is defined as a food under section 9 of the *Food Act 2008* therefore the handling of PIF within HCFs must comply with the requirements of the *Food Safety Standards* which now also includes Standard 3.2.2A – Food safety management tools.

4.7 Patient Information

HCFs need to ensure appropriate information is provided to parents, if required, on the options for using formula feed and for the cleaning and reprocessing of infant feeding

equipment. This should occur during their antenatal education to enable them to make an informed decision regarding their choice of product and reprocessing methods. Parents should be supported to commence the formula of their choice from birth and instructed on how to safely prepare PIF to minimise the risk of contaminating feeds.

Parents wishing to utilise disinfection methods such as 'steam sterilising' with electric or microwave steam units should be supported with educational opportunities (literature and practical instruction) to enable them to manage this process safely in the home environment.

5. Relevant Legislation

Australia New Zealand Food Standards Code

6. Additional Resources

- Baby Friendly Health Initiative Australia
- Promoting baby-friendly hospitals World Health Organization
- National Health and Medical Research Council (2012) Infant Feeding Guidelines. Canberra: National Health and Medical Research Council.
- International Standards:
 - ISO 15883-1:2024 Washer disinfectors Part 1: General requirements, terms and definitions and tests.
 - ISO 15883-2: 2024. Washer disinfectors Part 2: Requirements and tests for washer disinfectors employing thermal disinfection for critical and semi-critical medical devices.
 - ISO 15883-5: 2021. Washer-disinfectors Part 5: Performance requirements and test method criteria for demonstrating cleaning efficacy.

7. Guideline Contact

Enquiries relating to this Guideline may be directed to:

Infection Prevention Policy and Surveillance Unit (IPPSU)

Communicable Disease Control Directorate

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8. Document Control

Guideline number	Version	Published	Review Date	Amendments
0007	V.1.	29/03/2022	29/03/2024	Original version
0007	V.2	31/01/2025	31/01/2028	Literature review updated Australian Standard, inclusion of Australia New Zealand Food Standards Code, minor amendments.

9. Approval

Approved by	Dr Paul Effler, A/ Director,		
	Communicable Disease Control Directorate, Department of Health		
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