



**Laundry
Guidelines
for
Rest Homes
and
Small Hospitals**

**Laundry
Guidelines
for
Rest Homes
and
Small Hospitals**

August 1997

Foreword

These laundry guidelines have been developed to assist Ministry of Health licensing staff undertake audits of rest homes and small hospitals. I believe these guidelines will also provide a useful source of information for licensees and staff of those premises regarding what should be considered to provide an acceptable laundry service.

I would like to thank the Ministry's Dunedin Regional Licensing Office for initiating this project and writing the first draft of these guidelines. Thanks are also extended to a number of people in the health sector who took the time to write detailed and very helpful comments on the laundry guidelines when they were in draft. The Ministry gave careful consideration to all comments and in many instances the text was altered to take these views into account.



Diane Jörgensen
Manager Licensing

ISBN 0-478-20841-3

Published with the permission of the Director-General of Health

Contents

Introduction	4
Objective	
1. Laundry design	6
2. Storage and internal transport	7
3. Staff	7
4. Residents'/patients' access to laundry facilities	8
5. Infection issues	9
Bibliography	12

Introduction

These guidelines focus on the following issues:

- laundry design
- storage and transport
- staff
- residents'/patients' access to laundry facilities.

The last section discusses specific issues to do with infection control.

It is important to note that clause G2 Laundry of the New Zealand Building Code sets out the functional requirements for laundry facilities in hospitals and rest homes. These requirements should be noted when considering laundry design, in particular.

AS 4146, Australian Standard, Laundry Practice, was published by Standards Australia in 1994. A Committee has been reviewing AS 4146 with the aim of making it a joint Australian-New Zealand standard. The Ministry of Health received a number of submissions on the laundry guidelines which strongly indicated that larger hospitals have adopted and follow AS 4146. These laundry guidelines are not intended to rival or replace AS 4146 or the joint standard that might follow it.

The Ministry's view is these guidelines will be helpful as they will show licensees/managers of rest homes and small hospitals what licensing auditors are expecting to see in a well managed laundry service.

Objective of the laundry system:

**To provide a properly designed
laundrying programme in a safe
and sanitary environment, ensuring the
supply of clean and hygienic laundry.**

1. Laundry Design

The laundry is designed to maximise efficient and safe work flows and linen handling while minimising cross contamination. To achieve this, it is expected that:

- laundry facilities are separated from food preparation, storage and patient/resident care areas and equipment areas
- where an exhaust-ventilated system is in place, the air flow must go from clean, to dirty, to the outside
- there are clearly defined clean and dirty areas
- there are sufficient tubs, preferably stainless steel, for the separation and soaking of used and soiled laundry
- the floors are anti-slip and easy to clean
- walls, ceilings and pipework are easy to clean and are designed to prevent the accumulation of dust
- openings do not allow for access of vermin
- effluent is carried away in a closed system and sumps are covered
- a wash hand basin is available in the laundry
- doors are wide enough to admit trolleys and work flow from dirty to clean areas
- a collection area is provided for the linen to be brought into the laundry
- lighting for checking of materials is designed to reduce operator glare
- there are cleaning, maintenance and pest control programmes.

2. Storage and internal transport

Linen must be transported, processed and stored in a way that prevents contamination. To achieve this, it is expected that:

- there is adequate space for the storage of clean linen
- clean linen is stored in a clean, dry, dust-free area
- clean linen that is removed from the clean linen storage area for use, is not returned to the storage area if unused
- clean linen is transported and stored separately from soiled linen
- suitable containers are provided for the transportation of soiled linen
- soiled linen does not pass through food preparation or food storage areas
- soiled linen is stored in a well ventilated facility, free from pests
- soiled linen is not allowed to accumulate
- containers, trolleys, chutes and storage areas are cleaned regularly
- equipment and protective clothing is available for cleaning down the facilities
- chemicals are stored safely and there are separate drip trays for each chemical when used to prevent mixing.

3. Staff

Staff practices reduce the risk of cross-contamination and prevent injury. To achieve this, it is expected that:

- staff are adequately trained in hygiene standards, including handwashing and the risks involved if undertaking other tasks within the facility (eg, food preparation, resident/patient care)
- staff are educated and trained (and supervised, if appropriate) in the safe use of equipment or machinery

- staff are educated and trained in safe work practices, including safe manual handling techniques
- staff wear appropriate protective clothing and use gloves when sorting laundry
- work processes and practices for laundry staff (especially those whose duties include non-laundry tasks, eg, carework) are arranged so that risk to resident safety is minimised
- staff do not eat or smoke in the area
- toilet, change and shower facilities are provided
- staff with exfoliative skin conditions, unhealed lesions and rashes do not handle linen unless appropriate protective measures are adopted
- advice on hepatitis B vaccinations is available to staff
- Staff are educated about hazards, as required by the Health and Safety in Employment Act 1992
- Staff safety and premise security should be considered when staff operate an isolated laundry at night.

4. Residents'/patients' access to laundry facilities

- residents/patients do not have access to commercial standard operations
- residents/patients should, if they wish, have access to domestic washers, clothes lines and dryers
- all reasonable steps are taken to protect residents from avoidable harm, ie, they are supervised if needed.

5. Infection issues

The underlying assumption that organisms left on linen may be a source of infection is hard to prove or disprove. The greater risk is from the transmission of harmful bacteria from soiled linen, via staff hands, to vectors (such as food) or directly to resident/patients.

Key points in laundry policy and procedures:

- 1. Adequate hand washing facilities.**
- 2. Staff awareness of basic hygiene standards and handwashing policy.**
 - Education on standard precautions.
- 3. Work routines that reduce the risk of transmission of disease-producing organisms.**
- 4. Separation of linen into used/infected and heat sensitive categories.**
 - Used/infected linen from all patients/residents should be treated as potentially infectious. Any linen contaminated with blood from any patient or with body fluids from a known Hepatitis B, C, or HIV-positive patient should be placed in a water soluble, or fluid resistant bag, tagged and washed without sorting.
 - See note ii regarding the heat sensitivity of new textiles.
- 5. Thermal disinfection (heat).**

Water temperature and drying and ironing all contribute to bacterial (vegetative organisms) decontamination.
- 6. Soil removal disinfection.**
 - length of wash cycle (the actual wash time not including pre-soak and rinse)
 - temperature of wash

- concentration of detergent
- volume of water to kilogram of wash
- mechanical action, including agitation
- addition of bleach
- passage through the drying cycle
- instructions for chemicals and equipment usage are followed.

7. Chemical disinfection.

- Some textiles will not tolerate high heat. At lower temperatures chemical disinfection can be used, eg, hypochlorites (bleach).
- Detergents, as opposed to chemical disinfectants, are used to loosen the soil.
- The adequacy of a low-temperature wash with chemical disinfection should be supported by consultant reports or chemical manufacturer's documentation.

8. Domestic type washers.

- The ideal is a commercial machine, but small facilities may choose to use domestic type washers.

An appropriate safe temperature would depend on the:

- type of laundry done
- volume of laundry
- supporting information on chemicals used
- linen (towels and sheets) being ironed.

A wash temperature of at least 65°C to 70°C (check tap supply temperature) could be expected.

The adequacy of a cold water wash with chemical disinfection should be supported by consultant reports or chemical manufacturer's documentation.

Notes:

- The longer the wash cycle, the lower the temperature can be.
- There will be variation in specific standards, depending on the textile being washed.

For example:

- In general, temperatures should be in the range of 70°C to 85°C. The maximum limit is set by the stability of the textiles.
- 65°C is close to the minimum temperature to kill the more resistant vegetative organisms in a realistic time. The actual temperature reaching all parts of the load may be lower, as most organisms surviving the disinfection cycle are killed during heat drying and ironing.
- Some textiles, such as synthetics, are heat-sensitive. 40°C–50°C in domestic washers should remove most organisms. 250 ppm of hypochlorite can be used in the second rinse for disinfection. It is important to have a protocol to send laundry to a commercial laundry if an outbreak occurs (an outbreak could cause a problem if not controlled).
- Barrier resistant fabrics (eg, operating theatre linen) require:
 - correct wash water temperature and chemicals
 - checks on the pH levels in the washing machines
 - the number of washes to be recorded, as barrier resistance is lost in each wash
 - the item to be checked at a 'light table' after each wash
 - the item to be discarded after the maximum number of recommended washes.
- iii. A visual check should be made when folding and ironing linen to ensure it is suitably clean.

Bibliography

- United Healthserv Pty Limited. 1990. *Management of Hotel Services in Hospitals*. New South Wales: Australian Council on Healthcare Standards: Zetland.
- Ayliffe GAJ, Collins BJ & Taylor LJ. Laundering. *Hospitals-acquired Infection - Principles and Prevention*, 2nd Edition. London; Boston: Wright.
- Department of Health and Social Security. 1987. *Health Services Management - Hospital laundry arrangements for used and infected linen*. Health Circular HC(87)30. United Kingdom: HMSO.
- Hosplan. 1989. *Design Considerations for Infection Control*. New South Wales, Australia.
- MacDonald LL, Pugliese G. 1996. Laundry Service. In Mayhall C Glen ed. *Hospitals Epidemiology and Infection Control*. Baltimore: Williams & Wilkins.
- New Zealand Council On Healthcare Standards. 1997. Organisation-Wide Standards, Standard 8, Infection Control. *Accreditation Standards for Health and Disability Support Services*. Wellington: New Zealand Council on Healthcare Standards.
- NHS Estates. 1994. Health Building Note 25. *Laundry*. London: HMSO.
- Occupational Safety & Health Service, Department of Labour. 1993. *Back in Care - Preventing musculoskeletal injuries in staff in hospitals and residential care facilities*.
- Standards Australia. 1994. *Laundry Practice*. AS 4146-1994. Homebush. New South Wales: Standards Australia.
- The New Zealand Building Code: July 1992.
- Building Industry Authority. 1992. *Approved Document G2: Laundering*. Wellington: Standards New Zealand.
- Weinstein SA, Gantz NM, Pelletier C, et al. 1989. Bacterial surface contamination of patients' linen: isolation precautions versus standard care. *American Journal of Infection Control*. 17(5): 264–267.