

ACIPC

Australasian College
for Infection Prevention and Control

ACIPC Position Statement Single-use devices

ACIPC guidelines for single-use devices

Executive Summary

This position statement provides guidance for the use of single-use devices.

Recommendations

- Medical devices labelled as single must not be re-used (unless they have undergone a validated re-manufacturing process with Australian Register of Therapeutic Goods (ARTG) registration).
- Medical devices labelled as single patient use, may be used multiple times for the same patients, in accordance with the manufacturer's instructions and must be discarded appropriately when no longer needed.

Introduction

Single-use and single-patient-use devices, are items designed for single use or single patient use and must not be used for multiple patients¹. The designation of a device as single use/single-patient-use is determined by the manufacturer and must be clearly stated on the packaging or device, as well as the instructions for use.

The responsibility of designating a medical device as single use/single patient use lies with the manufacturer and this must be clearly stated on the medical device or in the instructions for use. Manufacture of medical devices, including the re-manufacture of single use devices, is regulated by the Therapeutic Goods Administration (TGA).

Items are listed as single use devices by manufacturers due to factors including:


- Materials used in the medical device may not be able to withstand cleaning, disinfection or sterilisation processes
- Identified difficulties in the cleaning, disinfection, or sterilisation of the device due to the design, e.g., narrow lumens²
- Reuse may result in performance degradation and compromise the functionality, performance and effectiveness of the medical device and increase risk to the patient³.
- Manufacturer cost considerations of developing and validating reprocessing protocols.

Reprocessing single use devices can lead to:

- Transmission of infection
- Device failure and/or degradation resulting in patient injury
- Issues with biocompatibility of the medical device

- Endotoxin reactions that cannot be removed by cleaning

Definitions

- **ARTG:** Australian Register of Therapeutic Goods is a public database of therapeutic goods that can be legally supplied in Australia.
- **Single use:** Equipment that is designed to be used on a single occasion for one patient and then discarded. Labelled with this symbol¹: 
- **Single patient use:** Equipment to be used for one patient only. Single patient use equipment should not be used on more than one patient (i.e. it remains for exclusive use for one patient only)¹. These items must be cleaned, disinfected or if able reprocessed and reused for designated patient only and in accordance with the manufacturer's instructions.
 - although the terminology states 'patient', the principle is to reduce risks associated in healthcare and this refers to patient, resident and/or consumer.
- **Reusable medical device:** A medical device intended for use by the manufacturer as suitable for reprocessing and reuse on multiple patients⁴
- **Remanufactured device:** A single-use device that has been collected and reprocessed/remanufactured to be available for use as a single use device by a manufacturer.
 - The TGA requires a facility that reprocesses single-use devices to be licensed as a manufacturer. A healthcare facility that reprocesses single use devices would be considered to be a manufacturer under the Act and thus would be required to conform to the regulation and be subject to audit to ensure compliance⁵.
- **Medical devices:** Are defined as follows by the Therapeutic Goods Act 1989⁵:
 - Any instrument, apparatus, appliance, software, implant, reagent, material or other article that is
 - Intended to be used by human beings in a range of uses related to disease, injury, disability, anatomy, contraception, and in vitro examination of a specimen derived from the human body for a specific medical purpose and
 - Does not achieve its principle intended action in or on the human body by pharmacological, immunological or metabolic means
- **WAND notification:** The Web Assisted Notification of Devices (WAND) database, must list medical devices that are legally supplied in New Zealand. WAND is not an approval system but holds information about all medical devices supplied in New Zealand⁶.

Literature Review

The reuse of a single use device exposes the patient to considerable risks, including infection and malfunction, that outweigh the perceived economic or environmental benefits of re-using a medical device³.

A medical device that is intended for re-use must be validated by the manufacturer with the intention for the device to perform as expected on the first and subsequent uses, even after reprocessing. Reusable medical devices undergo extensive testing, validation and documentation to ensure performance will be maintained with reuse³. Items designed for single use have not undergone these reprocessing validation studies, and it is unknown how they will perform with reprocessing and repeated use³. Items labelled for reuse are required to have detailed manufacturer's instructions outlining the requirements for cleaning and decontamination, disinfection and/or sterilisation, and certification from the TGA⁷.

A single-use medical device that has passed its expiry date, or has been opened and unused shall only be reprocessed if it is permitted to in accordance with the devices manufacturer's instructions for reprocessing, and is performed in accordance with these instructions⁴. Medical devices that are labelled as intended for single use and have been used shall not be reprocessed or reused⁴.

When choosing single use or reusable devices, consideration should be given to²:

- The safety of the device, including
 - The risk of infection and contamination
 - if the device can be appropriately cleaned, disinfected and/or sterilised by the organisation using the device
- The manufacturers safety data and instructions for use and/or reprocessing
- TGA approval
- Environmental impact including reprocessing, waste and disposal requirements
- Quality and performance of the device
- Cost-benefit analysis, including maintenance costs, and time and resources associated with reprocessing requirements
- Consideration given to environmental sustainability and recycling

A re-manufactured single use device, is a device that has been used as a single use device, collected and undergone a validated re-manufacturing process that ensures the device is substantially equivalent in safety and efficacy to the original device. The re-manufacturing process must comply with regulations, including having an ARTG listing and WAND notification. The re-manufacturing of a single use device does not make it a reusable device, it is a single-use device intended for another single-use, and it must be re-manufactured between patients.

Health Services must not engage in re-manufacturing of medical devices unless they are compliant with the TGA and Medsafe (NZ) regulations and maintain an ARTG listing or WAND registration.

Recommendations

Medical devices that are labelled as single use must not be reused unless they have undergone a validated re-manufacturing process. Medical devices that are labelled as single patient use must be reprocessed in accordance with the manufacturer's instructions, before being reused on the same patient.

The reprocessing of single use devices must not be undertaken in a health service facility unless the facility is licensed as a manufacturer under the Therapeutic Goods Act (1989) and fully complies with the requirements and regulations of the act.

Health service organisations should continue to work with industry representatives to promote sustainability in healthcare and identify ways of safely reducing waste from impacting on our environment.



References

1. Australian Guidelines for the Prevention and Control of Infection in Healthcare (National Health and Medical Research Council,) (2019).
2. The Royal Australian College of General Practitioners. *Infection Prevention and Control Guidelines*. 2023. 18 August 2023. <https://www.racgp.org.au/getattachment/c7d768ef-5db8-496b-9834-050a78b9251b/Infection-prevention-and-control-guidelines.aspx>
3. Single-use medical devices: implications and consequences of reuse (MHRA) (2021).
4. Standards Australia & Standards New Zealand. Reprocessing of reusable medical devices and other devices in health and non-health related facilities (AS5369:2023). ASTM; 2023.
5. Therapeutic Goods Act 1989 Amendment Bill 2020 (Australian Government) (2020).
6. The Web Assisted Notification of Devices (WAND) Database (New Zealand Medicines and Medical Devices Safety Authority) (2014).
7. Therapeutic Goods Administration. Medical device labelling obligations. Australian Government. Updated 16 April 2020. Accessed 9 February, 2024. <https://www.tga.gov.au/resources/resource/guidance/medical-device-labelling-obligations>

Version

| Version | Date | Addition/Amendments | Author | Review By |
|---------|-----------|--|--|---|
| 1.0 | June 2012 | New position statement | E. Gillespie, Chair Policy Committee | Executive Council |
| 2.0 | Sept 2015 | Amended template, updated legislation & evidence | F. Wilson, ACIPC Policy Committee Member | Policy Committee ACIPC Executive Board |
| 3.0 | Oct 2016 | Minor edits | T. van de Mortel, ACIPC Policy Chair | ACIPC Board of Directors |
| 4.0 | Feb 2024 | Review and update | K. McKenna, ACIPC IPC CNC | Practice Guidance Committee ACIPC Board of Directors |
| 5.0 | Oct 2024 | Update to re-manufactured devices | K. McKenna, ACIPC IPC CNC | Practice Guidance Committee ACIPC Board of Directors |