

# Memorandum

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**Date:** August 18, 2023  
**To:** Zone and Site Operations  
**From:** IPC Program and Clinical Engineering  
**RE:** UPDATE: Equipment damage due to improper cleaning and disinfection of medical devices

## Issue

Equipment damage and malfunctions continue to occur due to not following the manufacturer's instructions for cleaning and disinfection of medical devices, leading to patient safety risks, harms, and increased costs.

## Key messages

Previous ECC and ZEOC communications about this issue resulted in fewer malfunctions, but this trend is reversing and must be corrected.

Ensure all staff follow manufacturer's instructions for cleaning and disinfecting medical devices.

## Background

- Manufacturers' instructions for use (MIFU) define acceptable cleaning and disinfection products, tools, and processes for each device. Cleaning or disinfecting differently from the MIFU can lead to damage and malfunction and is considered 'off-label'.
- Cleaning and disinfection according to the MIFU is a shared responsibility between clinical unit staff and Environmental Services. Staff may use different products for cleaning and disinfecting devices as long as the products follow the MIFU.

## Examples

- IV pumps. [Update 2: Baxter Sigma Spectrum 8 Infusion Pump 20220628](#) – on Insite > Home > Teams > CPSM > Medical Device Safety > Equipment and Product Advisories > 2022 E/P Advisories June: Potential for pump shutdown related to oversaturation and seepage of cleaning fluid into the pump, which may cause serious injury. [BD Alaris Infusion Pump System](#) – on Insite > Home > Teams > CPSM > Medical Device Safety > Equipment and Product Advisories > 2020 E/P Advisories July: Pump malfunction, e.g., interruptions of therapy, over infusion, free-flow conditions, or under infusion of therapy from damaged connectors which can occur during improper cleaning and disinfection. Serious injury or death may occur.

## Contributing factors

- Delicate components and complex instructions for cleaning and disinfecting the medical device, e.g., multiple steps such as disassembly and rinsing, and requiring more than one disinfectant.
- Increased frequency and rigor of cleaning, and/or improper processes, e.g., over-saturation and fluid ingress into electrical components and connectors; lack of removal of cleaning products and/or lack of rinsing after the required contact time when a rinse step is required.

## Recommendations

**Review existing unit/department cleaning and disinfection products and processes.**

**Confirm they are based on the MIFU**, including selection and use of [ready-to-use and pre-moistened disinfectant wipes](#).

- Cleaning instructions for some equipment are available on Insite, e.g., [infusion pumps](#) – Home > Teams > Provincial Medication Safety > Infusion Pumps. and [shared patient equipment](#) – Home > Teams > Nutrition, Food, Linen & Environmental Services > Linen & Environmental Services > Communications.
- Contact [cpsm.customersupport@ahs.ca](mailto:cpsm.customersupport@ahs.ca) if you need help finding MIFU.

**Make the required products and tools available** in each location where a device is cleaned and disinfected.

**Post easy-to-understand instructions and illustrations** in the cleaning and disinfecting locations, and include:

- **Avoid over-saturation** of the device.
- **Do not spray or pour** products directly onto any medical or electronic device.

**Train staff** and/or consider assigning specific staff trained to clean and disinfect complex medical equipment, e.g., IV pumps, ECG carts and touch screens.

**Apply the correct principles and:**

- follow the correct **process**;
- use the correct **product**;
- allow for the correct **contact time** (and rinsing if needed); and
- at the correct **frequency**.

**Report** all medical device incidents and problems as per the [Medical Device Incident and Problem Reporting](#) process on Insite – Home > Teams > CPSM > Medical Device Safety > Medical Device Incident or Problem Reporting.

**Consult** with Biomedical and Clinical Engineering, if needed.

## Resources

For more information, refer to the following resources:

- [Key Points for Ready-to-use Disinfectant Wipes](#);
- [Handling, Cleaning and Disinfecting Mobile DI Devices](#).