

Topping Up Bottles, Reusing Trigger Spray Nozzles and Elephant Ear Wash™ System Infection Prevention & Control Communication Form

1. Issue:

Topping up any type of solution, lotion or cream (e.g., disinfectants, cleansers, and soaps) has the potential to encourage microbial growth in the solutions which may result in transmission of microorganisms.

Trigger sprays cannot be effectively cleaned and disinfected to Infection Prevention & Control Standards (IP&C) using current practices.

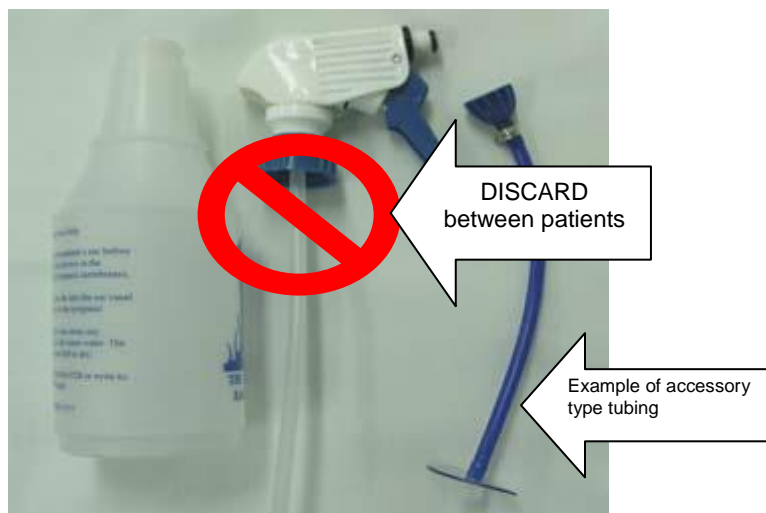
2. Recommendations:

2.1. Do not top up bottles.

2.2. Use bottles equipped with flip top dispensing mechanisms.

- Do not reuse trigger spray nozzles.

2.3. If trigger sprays are a part of patient care equipment, e.g., Elephant Ear Wash™ system. Discard trigger spray nozzle including attached tubing



2.3.1. Send bottle and any accessory tubing to Medical Device Reprocessing (MDR) for cleaning/disinfection.

2.3.2. If items cannot be sent to MDR bottle and tubing should be soaked in Facility approved disinfectant for manufacturer's specified contact time, rinsed with potable water and allowed to air dry. Both bottle and any accessory tubing should be placed in a manner to allow drainage to occur (e.g.: tipped upside down)

2.3.3. Use new trigger system for each P/R/C OR

2.3.4. Use another program approved single use system to complete the necessary task.

2.4. Discard bottle and dispensing mechanism when empty.

2.4.1. The entire bottle and flip top dispensing mechanism can be washed and dried thoroughly before each refill provided the physical space permits. Consult your site ICP to help determine adequate space for this task.



3. Discussion of Issue:

- 3.1.** Topping up includes the addition of liquid to a partially used bottle and the refilling of empty bottles that have not been cleaned, disinfected and thoroughly air dried before refilling.
- 3.2.** Topping up of solutions has historically been discouraged from an IP&C perspective as outbreaks have been attributed to contaminated containers of product supporting microbial growth.
- 3.3.** According to WRHA Routine Practices:
 - Hand lotion bottles shall not be reused
 - Soap or hand rub may not be added to partially empty dispensers
 - Dispensers must be washed and dried thoroughly before refilling reused.
- 3.4.** Outbreaks in ophthalmology have been linked to topping up disinfectants/cleansers.
- 3.5.** Reusable bottles, where permitted may be cleaned and disinfected in an instrument washer or, washed in hot soapy water in a clean separate basin (e.g., dishpan), rinsed and air dried prior to refilling.
- 3.6.** Reusing trigger spray nozzles can lead to microbial growth in the solution, lotion or cream because the spray nozzles cannot be adequately cleaned and/or air dried.
- 3.7.** Drying is an important step in the effective cleaning and disinfecting of any object. A lumen that is not adequately dried can form biofilms. Biofilms protect microorganisms from being removed by disinfection. Repeated use of a lumen that has not been adequately dried will lead to the formation of biofilms. This biofilm can then cause potentially harmful organisms to be introduced to the P/R/C (e.g.: via the auditory canal) to their environment. The easiest way to ensure there is no biofilm in the lumen is to use new trigger system each time.
- 3.8.** Inhalation of aerosol particles is a potential during product spraying.



4. Options and Analysis:

- 4.1.** Use ready to use solution, lotion or cream, discard bottle/dispensing mechanism (flip-top lid or trigger spray nozzle) when empty.
- 4.2.** Use concentrated solution, lotion or cream and purchase new bottles, discard bottle/dispensing mechanism when empty.
- 4.3.** Use concentrated solution, lotion or cream and clean, disinfect and thoroughly air dry the bottles, dispose of the trigger spray nozzle; use a new trigger spray nozzle on each bottle before each refill.
 - The use of sprays is also discouraged due to the potential of product aerosolization when using spray nozzles.

Options 4.1, 4.2 & 4.3 increase cost, however facilities without the physical space or infrastructure to clean, disinfect and thoroughly air dry bottles may not be able to resolve the issue without disposing of each bottle.

- 4.4.** Use concentrated solution, lotion or cream and bottles equipped with flip top dispensing mechanisms, clean, disinfect and thoroughly air dry the bottles and flip top nozzle before each refill.
- 4.5.** Option 4.4 may be the most economical solution and it avoids potential aerosolization however, physical space and infrastructure are required to clean, disinfect and air dry.
- 4.6.** Use an alternate single use system (e.g., syringe and cannula). However any change in practice must be approved by the individual program.
- 4.7.** Find another Program approved alternative that is can be used on multiple patients. However an alternate device may not be able to be cleaned and disinfected to IP&C standards. Any new piece of equipment procured in the WRHA must be assessed by IP&C to ensure it is able to be cleaned and disinfected effectively with a healthcare approved disinfectant.



References:

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