

EVIDENCE REVIEW & RECOMMENDATIONS FOR LTC WRHA LONG TERM CARE PROGRAM

TOPPING UP AND TRIGGER SPRAY RE-USE

Background

- 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.
- Many LTC sites are still using the decanting system where topping up, use and re-use of trigger sprays is an accepted contrary to current evidence informed practice.
- **Note:** This does not apply to bottles containing gels, which are addressed under: Gels, Ultrasound and Medical Policy #90.00.070.

Discussion of Issue

- 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.
- Organisms like pseudomonas can replicate themselves every 20 minutes in the presence of moisture, this type of microbial growth can overwhelm the disinfectant properties in the solutions themselves allowing organisms to grow.
- 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.
- 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 emptied, washed and dried prior to refilling if reused.
- Outbreaks in ophthalmology have been linked to topping up disinfectants/cleansers.
- 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.
- Reusing trigger spray nozzles can lead to microbial growth in the solution, lotion or cream because the spray nozzle cannot be adequately cleaned and/or air dried.
- Inhalation of aerosol particles of the disinfectant chemistry is a potential during product spraying.

Analysis

1. Use ready to use (RTU) solutions, lotion or cream, discarding bottle/dispensing mechanism (flip-top lid or trigger spray nozzle) when empty.
2. Use dilutable solution, lotion or cream and purchase new bottles, discarding bottle/dispensing mechanism when empty.
 - ◇ Option 1&2 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.
3. Use dilutable solution, lotion or cream and clean, disinfect and thoroughly air dry the bottles, disposing of the trigger spray nozzle; use a new 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.
4. Use dilutable 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.
 - ◇ Option 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.

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Recommendations:

1. **Do not top up bottles.**
2. Discard bottle and dispensing mechanism when empty.
 - ◇ The entire bottle and flip top nozzle may be cleaned, disinfected and thoroughly air dried before each refill if physical space permits. Consult your site ICP to help determine adequate space for this task.
3. Use bottles equipped with flip top dispensing mechanisms
 - ◇ **Do not reuse trigger spray nozzles.**

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