

INFECTION PREVENTION & CONTROL COMMUNICATION FORM

Topping Up Bottles and Reusing Trigger Spray Nozzles

PART 1: ISSUE & RECOMMENDATIONS

Issue:

Topping up bottles and reusing trigger spray nozzles.

Note: This does not apply to bottles containing gels, which are addressed under: Gels, Ultrasound and Medical Policy #90.00.070

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.

Recommendations:

- 1. Do not top up bottles.
- 2. Discard bottle and dispensing mechanism when empty.
- 3. Refilled bottles may be reused once and then discarded. The entire bottle and flip top nozzle may be cleaned, disinfected and thoroughly air dried before refill if physical space permits. Consult your site ICP to ensure adequate space for this process exists.
- 4. Use bottles equipped with flip top dispensing mechanisms.
- 5. If a trigger spray nozzle must be used (e.g.: Elephant Ear Wash System™) the trigger spray mechanism must be discarded after use on each patient.
- 6. Check expiry date on the bottle of product being used to refill bottles. Transcribe correct product information/expiry date onto bottle.

PART 2: BACKGROUND: DISCUSSION OF ISSUE, OPTIONS AND ANALYSIS & REFERENCES

Discussion of Issue:

- 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.
- 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. Expired product has been use to refill bottle.
- 4. Production information (including WHIMIS labeling) and expiry date may not be properly transcribed with reuse of bottles
- 5. Outbreaks in ophthalmology have been linked to topping up disinfectants/cleansers
- 6. 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.
- 7. 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.
- 8. 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.
- 9. Inhalation of aerosol particles is a potential during product spraying.



Options and Analysis:

- 1. Use ready to use solution, lotion or cream, discard bottle/dispensing mechanism (flip-top lid or trigger spray nozzle) when empty.
- 2. Use dilutable solution, lotion or cream and purchase new bottles, discard 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, dipose 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.

References:

- American Academy of Ophthalmology. <u>Infection Prevention in Eye Care Services and Operating Areas and Operating Rooms.</u> December 2009. Retrieved January 31, 2011 from: http://onetext.aao.org/CE/PracticeGuidelines/ClinicalStatements_Content.aspx?cid=bfa87dce-adc9-4450-94a2-e49493154238.
- 2. Bello, A., Quinn, M., Perry, M., Milton, D. <u>Characterization of occupational exposures to cleaning products used for common cleaning tasks-a pilot study of hospital cleaners</u>. Environmental Health. 08/03/2009. Retrieved March 21, 2011 from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678109/?tool=pubmed.
- 3. CHICA-Canada Position Statement. <u>Medical Gels</u>. March 2005. Retrieved July 22, 2011 from: http://www.chica.org/pdf/medgels.pdf.
- 4. Dix, K & Schraag, J. <u>Environmental Surface Cleaning: First defense against infectious agents</u>. Infection Control Today. 12/01/2005. Retrieved January 31, 2011 from: http://www.infectioncontroltoday.com/articles/2005/12/infectioncontrol-today-environmental-services.aspx#.
- 5. Health Canada. <u>Infection Control Guidelines: Hand washing, cleaning, sterilization and disinfection in healthcare.</u>
 December 1998. Retrieved July 22, 2011 from: http://www.dantaylor.com/files/handwashing.pdf
- Verani, J., Suchita, A., Yoder, J., Beach, M., Braden, C., Roberts, J., Conover, C., Chen, S, McConnell, K., Chang, D., Roy, L. National Outbreak of Acanthamoeba Keratitis Associated with Use of Contact Lens Solution, United States. August 2009, 15(8). Retrieved January 31, 2011 from http://www.cdc.gov/parasites/acanthamoeba/resources/Verani_JR_2009_Nat_Outbreak_of_AK_Associated_with_CL_Solution_EID-508c.pdf.
- 7. WRHA Regional Ultrasound and Medical Gels Policy 90.00.070, December, 2007. Available on page 3.10 at: http://home.wrha.mb.ca/prog/ipc/files/hospitalmanual/ManualHospital Full.pdf.
- 8. WRHA Regional Routine Practices Policy 90.00.060, December 2007. Available on page 3.5 at: http://home.wrha.mb.ca/prog/ipc/files/hospitalmanual/ManualHospitalFull.pdf.

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