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[<http://ipac.vch.ca/Documents/Cleaning%20and%20Disinfection/Sink%20Remediation.pdf>]

IPAC BEST PRACTICES GUIDELINE

Sink Remediation

DATE: Apr 19, 2018

REVISED DATE: Oct. 17, 2018

REVIEWED DATE: May 8, 2018

PURPOSE

To provide infection prevention and control guidance on removing biofilm from sink drains in patient care areas. Sink drain remediation may be implemented in response to a plugged drain or by special request of infection prevention and control (IPAC).

BACKGROUND

In unique circumstances, IPAC *may* request sink remediation if they suspect a sink of harboring microorganisms linked to a cluster of infections. Hospitalized patients are uniquely susceptible to infection from environmental sources. Sink contamination may cause colonization and occasionally infection in patients through direct (splash) or indirect (supplies/equipment) contact with wounds, intact skin, mucous membranes or invasive devices. This transmission pathway does not infer the microorganism(s) in question are more virulent or infectious than others found in the environment, but rather the heightened risk for infection faced by vulnerable and immunocompromised hospitalized patients.

Biofilm is a community of bacteria that are aggregated in a matrix made of extracellular polymeric substances. Biofilm can be difficult to remove or destroy by standard cleaning and disinfection methods. Sinks used exclusively for hand hygiene and that are design engineered per CSA Z8000 guidelines reduce the risk for splash contamination from sink drains and the formation of biofilms.

PROCEDURE *(only to be done if discussed and approved by IPAC)*

1. [Read instructions for use of drain opener and maintainer that kills biofilms approved for use at VCH \(Liquiflo\) and follow material safety data sheet.](#)
2. Ask in-charge health care provider (i.e., charge nurse) to determine suitable time for sink remediation in the designated room. Perform sink remediation in an unoccupied room whenever possible.
 - If accessing an occupied room:
 - Perform hand hygiene on entry/exit
 - Adhere to any precaution signage posted on the door
 - Inform occupant(s) that you are there to perform sink remediation
 - Request EVS perform a daily clean of the occupied space prior to accessing for sink remediation
 - Confirm sink is located at least 2 meters away from patient, equipment and supplies

- If the patient has been discharged, request the room is discharge cleaned and disinfected prior to sink remediation.
3. Follow the product safety instructions:
 - Wear chemical resistant gloves
 - Wear safety goggles/visor
 4. Remove and replace p-trap *only if/when* directed by IPAC as an additional special requirement.
 5. Pour Liquiflo into drain. Cover with blue pad. Let sit for 30 minutes.
 6. Remove blue pad and discard. Flush with water.
 7. After flushing, if biofilm still visible scrub drain with a brush using Accelerated Hydrogen Peroxide disinfectant (Virox).
 8. Clean and disinfect sink, taps, counter and soap/paper towel dispensers using a hospital-grade disinfectant wipe (e.g., Accel wipe).
 9. Remove personal protective equipment (PPE) and perform hand hygiene on exit from the patient room. Use a hospital-grade disinfectant wipe (e.g., Accel wipe) to clean and disinfect any reusable PPE such as safety goggles and any plumbing tools used.
 10. Request EVS discharge clean and disinfect the room.

REFERENCES

BC Ministry of Health. (2012). Best Practices for Hand Hygiene in All Healthcare Settings and Programs. Retrieved from: <https://www.health.gov.bc.ca/library/publications/year/2012/best-practice-guidelines-handhygiene.pdf>

Canadian Standards Association. (2016). CSA Z8000: Canadian health care facilities.

Geyter et al. (2017). The sink as a potential source of transmission of carbapenemase-producing *Enterobacteriaceae* in the intensive care unit. *Antimicrobial Resistance and Infection Control*, 6:24.

Kotay et al. (2017). Spread from the Sink to the Patient: *In Situ* Study Using Green Fluorescent Protein (GFP)-Expressing *Escherichia coli* To Model Bacterial Dispersion from Hand-Washing Sink-Trap Reservoirs. *Applied and Environmental Microbiology*, 83:8.

Weingarten RA, et. al. (2018). Genomic analysis of hospital plumbing reveals diverse reservoir of bacterial plasmids conferring Carbapenem resistance. *mBio* 9:e02011-17