



PATIENTS' SINK POTENTIAL SOURCES OF INFECTION

Increased awareness of sink drain contamination as a possible source of transmission of hospital-acquired infections, particularly for high-risk patients.

Molecular epidemiology of *Pseudomonas aeruginosa* in an intensive care unit - Cambridge University Press

The mechanism of strain transmission from sinks to hands during hand washing was investigated in a children's hospital. When *P. aeruginosa* was present at densities of > 105 /c.f.u. per ml in sink drains, hand washing resulted in hand contamination with *P. aeruginosa* via aerosol generation in the majority of experiments or *P. aeruginosa* was detected using an air sampler above the washing basin. High *P. aeruginosa* cfu were present at 4.30 h in the eight sinks ($5.4 \times 10^5 - 7.0 \times 10^6$ c.f.u./ml), whereas at 13.00 h *P. aeruginosa* c.f.u. were significantly lower ($3.81 \times 10^2 - 8.0 \times 10^5$ c.f.u./ml). These data reveal that the danger of bacterial contamination of hands during hand washing is highest in the morning.

The identified transmission routes demand more effective hygienic measures in hospital settings particularly concerning personnel hands and sink drains.

PCS preventative maintenance of patient care sink drains in areas housing patients of high risk of acquiring hospital acquired infections.

When an outbreak has occurred and sink drains are suspected as source a deep cleaning may be required.

Daily treatment procedure

- Turn off automatic water activation.
- Clean sink and taps.
- As last step Squirt 60 mls / 2 ounces of PCS 7000 Oxidizing disinfectant around drain daily. Wipe excess PCS 7000 from sink and wipe accessible areas of drain.
- Allow PCS 7000 to rest in drain trap without rinsing to oxidize contamination.

All drains are contaminated with bacterial biofilms. A thorough clean must include dissolving of soil, agitation to dislodge attached biofilm bacteria and a sanitization step.

We recommend removal of trap from drain by a plumber or maintenance staff.

Deep cleaning process

- Dilute one scoop of EPS First Step cleaner in four liters of warm water. Apply diluted solution of EPS First Step cleaner to all drain components leading to sink and the trap keeping them wet for at least three minutes.
- Agitate all surfaces with brush until all visible soil is removed.
- Rinse all drain surfaces.
- Apply diluted solution of PCS 7000.
- Allow drain surfaces to air dry and reattach trap.
- Swabbing drain components before reassembly can validate process has been successful.

PCS 7000 Oxidizing Disinfectant contains 7000 ppm of sodium hypochlorite kills *C. difficile* spores and when diluted with 32 parts water demonstrated a greater than 7 log reduction of *Escherichia coli* and *Staphylococcus aureus* in 30 seconds.

EPS First Step Cleaner dissolves and loosens soil including EPS Extracellular Polymeric Substance bacteria use to attach to surfaces. Contains carbonates and sodium citrate

