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Preventing the spread of germs when emptying urine drainage bags in home care

Background and Question

Current healthcare in the clinical and outpatient setting is dramatically changing due to the emergence of a range of antibiotics-resistant bacterial strains with evolutionary adaptive power to escalate the threat. This development faces a pediatric care in many western countries met by nursing assistants and aides with limited knowledge in clinical microbiology, prevention of pathogen spread, and aseptic non touch working techniques. I am interested in easy-to-use protocols and items helpful to reduce pathogene spread and establishment of bacterial reservoirs in the environment of people in need of care.

Method

Emptying urine drainage bags is the prototypical example of a care routine with the potential for hazardous germ spread. In cases with bacteriuria or urinary tract infection, bacterial strains with a vast spectrum of antibiotic resistances may be spread in the patients environment. Here, I report the use of disinfection wipes as compared to disinfection liquid during the course of emptying the drainage bag and discarding the urine from a person carrying *Pseudomonas aeruginosa* in bacteriuria without infection symptoms. Care was provided by a group of six nursing assistants and aides from a professional home care provider. The possible contamination of a water faucet used during the work was regularly examined

Results

The use of disinfection wipes was accepted surprisingly well by the entire nursing staff. Also aides less acquainted with questions of clinical microbiology, the nature of pathogenes involved in infectious diseases, and aseptic non-touch working routines, seemed to feel comfortable using a conveniently placed disinfection wipe. Frequency of use was several times higher than for disinfection liquid in containers. This frequent usage was suitable to transform a number of working steps from spreading germs to disinfecting moves. Contamination of the water faucet was prevented for a 12 month period.

The time period during which a disinfection wipe remains effective needs to be discussed with the nursing personnel, as well as the time when to use a fresh wipe before gloves are already contaminated.

Conclusions

This observational study with a small number of home care personnel indicates a good acceptance of disinfection wipes by diverse nursing assistants and aides. Transformation of several occasions for the spreading of germs to disinfecting moves shows the ability to prevent contamination of water faucets and indicates the potential to prevent nosocomial infections.