Preventing the Transfer of Pathogenic Organisms From the Use of Mobile Phones

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A mobile phone, especially a Smartphone, has become an essential work and personal device used by most home care and hospice staff. A Smartphone is a cell phone that includes additional software functions that can enable the staff to access the Internet. In patient care activities, a Smartphone can be used as a stopwatch to check a patient's pulse or respirations, check e-mail, obtain driving directions to a patient's home, and access other clinical support tools and resources, such as drug information while reconciling a patient's medications. In contrast to the many benefits of a mobile phone, it can also serve as a fomite for the transfer of pathogenic microorganisms.

Chao Foong et al. found that 74% of mobile phones tested had high levels of bacterial contamination. Most of the organisms were normal skin flora; however, 5% were of potentially pathogenic microorganisms. Similar organisms were isolated from the person's dominant hand and mobile phone (Chao Foong et al., 2015). Pal et al. (2013) found that touch-screen mobile phones that had a single flat surface (e.g., Apple's iPhone®) were less contaminated and harbored less pathogenic bacteria compared to mobile phones with keypad devices.

Most staff use the same mobile phone for work and personal use and that may increase the risk for transferring pathogenic microorganisms to both the patient and community (Manning et al., 2013). Regularly cleaning and disinfecting the mobile phone are the keys to reducing this risk. Chao Foong et al. (2015) found that only 31% of 226 participants reported cleaning their phones routinely. Touch-screen mobile phones may have a screen coating that can be damaged when a disinfectant is applied to its surface. Yet, disinfectants are needed to remove pathogenic microorganisms from the phone's surfaces. Options to consider for cleaning and disinfecting a mobile phone include applying a product or waterproof or water-resistant case to serve as a protective barrier for the phone's surfaces and allow for surface disinfection. Before applying a disinfectant directly to a mobile phone or a protective barrier, the phone or case manufacturer should be contacted to assure that it can be applied to the screen or protective cover without damaging it. The cheapest, most accessible, and effective disinfectant to use on a mobile phone would be a 70% isopropyl alcohol prep pad wiped over all surfaces of the mobile phone for a 1-minute contact time, minimally on a daily basis and when visibly soiled. Most importantly, performing hand hygiene prior to patient contact will prevent the transfer of microorganisms from the staff's hands to the patient. Mobile phones will continue to be an important communication and resource tool for home care clinicians. Assuring that the mobile phone used in patient care is properly cleaned and disinfected on a regular basis is an important strategy to prevent a home care-onset healthcare-associated infection.

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