

INCREASED RATE OF INFECTIONS IN THE ACUTE CARE SETTING

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Introduction

Healthcare associated infections develop in a patient as a result of their exposure to healthcare facilities or procedures. They include methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *Enterococcus* (VRE), *C. difficile* and other infections caused by bacteria and viruses encountered in healthcare facilities (CUPE, 2009). Hospital acquired infection can result in prolonged or permanent disability and some hospital acquired infections prove fatal (Taylor, Plowman, & Roberts, n.d.). The rates of these hospital acquired infections in the acute care setting have increased especially in Alberta. For example, in 2007, a preliminary surveillance report on MRSA in patients from 47 Canadian acute-care sentinel hospitals found that the MRSA rate was 8.62 per 1000 admissions (AHW, 2011). Also, since reporting began in 1999, a cumulative total of 1,241 VRE infected cases were reported to the Public Health Agency of Canada (Agency) through December 31, 2011 (PHAC, 2013). With the incidences of these super-infections occurring in the acute care setting, the health of the individuals being admitted in the hospital is further placed at risk. The individuals at risk include mostly children and the elderly. According to the population projections of the Alberta Treasury Board and Finance (2013), the number of Albertans aged 80 years and older would more than triple from the current level of about 115,000 in 2012 to over 383,700 by 2041 (p. 3). This means that more and more elderly individuals will be at high risk for infections such as MRSA which according to the report by AHC (2011), have infection rates highest in the elderly (70 years and older). Acquiring infections in the acute care setting can have a great impact on the affected person's life. This might mean he can no longer go to work while being treated in the hospital which would mean financial losses which not only affect the individual, but also his family. Furthermore, treating super infections in a hospital care setting can significantly impact the country's economy. A survey of Canadian hospitals (reported in 2000) estimated the direct costs of hospital acquired infections in Canada to be approximately \$1 billion annually. In 2007, MRSA alone was estimated to be costing Canada's healthcare system \$200-250 million per year (CUPE, 2009).

Identifying Solutions to Prevent Super-infections

Super-infections can be costly to treat and most often than not, prove fatal for the individuals afflicted with such. However, over the years, methods have been developed to further prevent individuals admitted to in an acute care setting from contracting such infections. Such methods involve adding more healthcare cleaning and infection control staff with proper training. Knowing how to deal with a situation where infection occurs can greatly reduce the risk of certain infections from spreading further among individuals in an acute care setting. Hospitals in Canada and Europe have demonstrated that investment in more cleaning and infection control staff, training and workforce

stability has brought infection rates down (CUPE, 2009). Most infections acquired in the acute care setting can be transferred through direct contact. It can either be direct contact with an infected individual or an object that has come into contact with an infected individual. Transfer of infectious bacteria can be prevented through proper hand washing. Hospitals nowadays tend to have hand sanitizers placed strategically over the entire hospital. While antimicrobial soap and water are still recommended for hands that are visibly soiled or have been exposed to bodily fluids, alcohol-based gels or rubs are now preferred for routine decontamination of hands after most patient contact. These products rapidly kill bacteria and most viruses, and actually are gentler on the hands than repeated use of soap and water (IHI, 2012). The nurse's role is to educate, not only the individuals being admitted into an acute care setting, but also the visitors coming in and out of the hospital to wash their hands properly.

Nursing Care Plans

There are three nursing care plans that were drafted from this scenario which may apply to potential high risk individuals involved. First nursing diagnosis is an actual problem, fear/anxiety (see Appendix A for a breakdown of the care plan). Second nursing diagnosis is a potential problem, risk for infection (see Appendix B for a breakdown of the care plan). The last nursing diagnosis is an educational need, knowledge deficit (see Appendix C for a breakdown of the care plan).

Conclusion

Preventing the spread of super-infections involves team effort. Not only is this limited to the health care workers, but also extends to families and visitors in an acute care setting. The addition of more staff that are trained and knowledgeable in dealing with infection prevention certainly helps keep such infections at bay. Most of these infections are acquired through direct contact; therefore, proper hand washing should be performed before and after coming into contact with an individual or any object that is present in the hospital. Not only will it reduce the risk of contracting a super-infection towards oneself, it will also prevent the spread towards other individuals.

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