



QUALITY & SAFETY MATTERS

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Reducing Mortality in HIV Patients through Telephone Communication

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In the United States, it is estimated more than one million individuals are infected with HIV; approximately 230,000 are infected but remain undiagnosed; and around 56,000 individuals are newly infected each year.

The HIV/AIDS pandemic profoundly affects the economy and the workforce by affecting people in their most productive years. As the pandemic evolves, it widens the gap between available resources and the needs for care. People who are tested for HIV and learn they are infected can make significant behavior changes to improve their health. In adults diagnosed with HIV, telephone-based nursing interventions can provide medication and counseling support to improve patient outcomes and mortality from HIV.

There is currently no existing standard of practice that supports nursing interventions for HIV infected patients but multiple studies completed in the last ten years show the use of telephone communication (text and phone calls) had a positive impact on these individuals. Specifically, evidence from separate studies showed medication adherence increased with use of daily and weekly intermittent text message reminders, reminders via a telehealth mobile app, as well as unannounced telephone pill counts. These interventions were proven successful by demonstrating viral load suppression in the study participants. Additionally, customized telephone calls that included psychosocial counseling sessions improved long-term medication adherence.

HIV related phone communication has proven to maximize medication adherence and provide beneficial counseling support positively impacting HIV mortality overall. It is recommended to initiate a pilot study using telephone-based communication facilitated by nurses to provide counseling and medication support for individuals newly diagnosed with HIV. The pilot study should examine the feasibility, cost, time and adverse events associated with implementing this program. The interventions selected for the pilot study should mirror those with positive outcomes in previous studies. The study should be conducted in a facility or community with a high incidence and mortality rate of HIV. Telephone delivered nursing interventions have the potential to reduce costs, save time and facilitate more support for people living with HIV.

Smoking Cessation Interventions in the Older Adult Male

By: Tony Duran, Ashley Garcia and Kyra Ford

An estimated 34.3 million adults in the United States use tobacco and it remains as one of the leading causes of preventable death. The detrimental effects of smoking can be appreciated throughout the whole body from the integumentary, circulatory, and respiratory systems to even the immune system. This may explain why smokers have a higher risk for many types of cancers including lung, mouth and larynx. Not only does tobacco use negatively affect each individual but it also affects our health care system. The estimated economic impact of smoking tobacco-related illness in the United States is more than \$300 billion each year. Given the prevalence and impact tobacco use still has today and the increased life expectancy of the aging population, it should become a priority to not only continue to study the effects in this population, but also develop and implement new effective treatments to aid with cessation.

Achieving tobacco cessation is a choice that is primarily initiated by the user; however, a health care provider may construct an individualized treatment plan for the patient. Pharmacological interventions include nicotine replacement therapy and prescription medications such as bupropion and varenicline. Non-pharmacological practices implement behavioral strategies such as support groups, one-on-one counseling and hotlines.

Most recent data has shown the combination of pharmacological and non-pharmacological interventions increased cessation rates for the general population and for older adult males. Deficiencies in practitioner education, support and awareness to the issue played a part in encouraging the older adult to quit as evidenced by fewer pharmacological interventions and referral to counseling. In addition, overall research on smoking cessation on the older adult remains limited and mostly restricted to general middle-aged and younger adults.

We recommend additional studies be conducted on the adult male over the age of 65. In addition, there needs to be more education given to health care providers on how to properly screen, educate and treat older patients to achieve smoking cessation. It may be beneficial to consider a combination of different types of treatments since the literature has proven increased positive outcomes with multiple types of interventions.

Effectiveness of Guided Imagery in Combination with Nerve Block for Pain Management in Elderly Hip Fracture Patients

By: Elizabeth Doriety, Jennifer Graves, Thomas Pearson, Julie Phan and Yesenia Segura

Pain management in elderly individuals is challenging due to the many complications that occur with aging. One of the main concerns of current practice for pain management following hip fracture surgery is opioid use. Liver function decreases with age; therefore, metabolic degradation of medications including opioids is also delayed, causing them to remain in the body longer. There is also the matter of opioid overdose, which may cause further organ damage. Extreme caution must be used when prescribing medication to the elderly population, ensuring that proper pain relief is achieved for the patient.

Currently, the primary method used to relieve pain is either opioids alone or both the use of femoral nerve block and the use of opioids for breakthrough pain. The use of a femoral nerve block for pain management is a relatively newer form of pain management used in hip fracture patients with emerging popularity for its efficiency. It also has the potential to avoid or reduce the effects of opioids. In addition, the analgesic effects of femoral nerve block alone appear to be superior to the effects of opioids as far as movement is concerned, resulting in lower preoperative pain relief consumption and a longer time for the first request.

Research shows that a combination of guided imagery and nerve block therapy is effective in reducing pain in elderly patients with a hip fracture when compared to nerve block alone. Guided imagery also has shown no negative effects so its use is not contraindicated, especially when used in combination with other pain relief methods.

The evidence found in this study suggests that the practice of guided imagery may be helpful to many patients following hip fracture surgery. There is limited evidence however, specifically targeting the combination of guided imagery with femoral nerve blocks following this surgery. The recommendation is to continue studying this topic to obtain more information and determine the significance of the practice before a general change in practice is implemented.

Home Care Strategies to Reduce 30-Day Readmissions for Persons with Heart Failure

By: Blaire Beaty, Katherine Hudson and Reagan Michalke

Heart failure is defined as a chronic and progressive disease that hinders the heart's ability to pump, making it unable to meet the body's needs. Estimates indicate that 5.7 million adults in the United States are living with heart failure and that number is expected to increase by 46 percent by the year 2030. In 2012, the cost of heart failure in the United States was \$30.7 billion.

A major contributing factor to the cost associated with heart failure is the high 30-day readmission rate for this population. Studies show that from 2009 to 2012, the risk for hospital readmission within 30-days of discharge for patients with heart failure was 23 percent. Financial incentives have been created in the Affordable Health Care Act based on the widely held belief that excessive readmissions are a "correctable source of poor quality of care and excessive medical spending."

Management of heart failure varies widely. Current guidelines in management of heart failure focus on medical care (The American College of Cardiology, the American Heart Association, the European Society of Cardiology and Heart Failure Society of America); clear and consistent nursing practice guidelines are lacking. Available evidence indicates that various nursing interventions reduce readmission for individuals with heart failure. Those interventions include nurse led discharge teaching in conjunction with early follow-up appointments to decrease readmissions. Specifically, effective post-discharge self-management is associated with discharge teaching that goes beyond the patient's primary heart failure diagnosis and includes management of comorbidities. Two follow-up strategies are explicitly associated with improved outcomes. Those strategies are scheduling follow-up medical appointments within seven days of discharge and incorporating scheduled telephone follow-ups.

Although the available evidence is non-experimental, the findings are good to high quality. Given that the risk associated with less than optimal care for persons with heart failure is greater than the risk of implementing the evidence-based strategies for discharge education and structured follow-up, we recommend implementing the same for a period of six months. We also recommend evaluating 30-day readmission and patient satisfaction data for six months before the pilot and throughout the six month pilot program. In addition, we recommend a repeated analysis of available evidence annually to monitor emerging practice related nursing strategies for this population.

