Saving Lives, Limbs and Healthcare Costs: Quantifying the impact of CHG bathing and effective leadership on the reduction of hospital-acquired infections

Kelly A. Reagan
Virginia Commonwealth University, reaganka2@vcu.edu
Hospital-acquired infections (HAIs) impact 1 in 22 hospitalized patients and are one of the leading causes of mortality in the United States. In addition to the direct patient impact, HAIs also cost the US healthcare system about $45 billion a year. Multiple studies have shown that bathing patients with chlorhexidine gluconate (CHG) wipes reduces HAIs. We employed a Markov chain model to assess the impact of CHG bathing on yearly HAIs and associated costs. Although the cost of using CHG wipes over traditional practices is about $4 more per patient, millions of dollars still could be saved when CHG bathing compliance is improved. Furthermore, we examine the effect of active resistors and organizational constipators on the reduced number of potentially prevented HAIs and the increase in associated healthcare costs. These individuals often delay implementation of emerging best practices in infection prevention.