

Effect of using collaborative quality improvement of infection prevention in tertiary care hospital, Bangkok Thailand

Kampong Kamnon, RN MNS, Rajavithi hospital, Thailand
Jinjutha Kaewmak, RN MNS, Rajavithi hospital, Thailand
Panit Juntabau, RN BNS, Rajavithi hospital, Thailand

Abstract

Hospital-associated infections (HAIs) has an impact on patients, personnel and the hospital. This an interrupted time series design study aimed to assess the effect of using collaborative quality improvement (CQI) of infection prevention in tertiary care hospital. The samples were selected by purposive sampling from the patients, who were HAIs and admitted into 6 intensive care units (ICUs) and 36 general wards. Data were collected from May, 2017 to January, 2018. The study instruments were a surveillance form of HAI and impacts of HAI form developed by research. Data were analyzed using descriptive and multiple linear regression statistics. The results revealed that reduction in HAIs, from 35.7 % (1,219/3,417 patients) before implementing CQI to 27.6 % (994/3,608 patients) after implementing CQI at a 0.05 statistically significant levels. Indicated the highest infection rate was from ventilator-associated pneumonia (VAP) 5.6 per 1,000 ventilator-days, followed by catheter-associated urinary tract infection (CAUTI) 3.1 per 1,000 catheter-days and central line-associated bloodstream infection (CLABSI) 1.9 per 1,000 catheter-days. Case fatality rate from VAP, CLABSI and CAUTI were 38.4%, 31.7% and 17.3%. Cost of antibiotic treatment for VAP, CAUTI and CLABSI were 91,153.45 USD, 74,342.72 USD and 20,114.27 USD, respectively. These finding imply that the concept of CQI could be applied to reduce incidence and preventive of HAIs. However, it is interesting to see if the results are sustainable and hospital still proceed with their work.

Recent publications

1. Goulding L, Parke H, Maharaj R, Loveridge R, McLoone A, Hadfield S, et al (2015) Improving critical care discharge summaries: a collaborative quality improvement project using PDSA. Retrieved July 4, 2017, from <http://qir.bmj.com/>
2. Hsu YJ, Weeks K, Yang T, Sawyer MD, Marsteller JA (2014) Impact of self-reported guideline compliance: bloodstream infection prevention in a national collaborative. American journal of infection control 42(2014):S191-S196.
3. Mocanu V, Buth KJ, Johnston LB, David I, Hirsch GM, Legare JF (2015) The importance of continued quality improvement efforts in monitoring hospital-acquired infection rates: a cardiac surgery experience. The annals of thoracic surgery 99:2061-2069.
4. Murni IK, Duke T, Kinney S, Daley AJ, Soenarto Y (2015) Reducing hospital-acquired infectious and improving the regional use of antibiotics in a developing country: an effectiveness study. Archives of disease in childhood 100:454-459. doi:10.1136/archdischild-2014-307297
5. Ocran I, Tagoe DNA (2014) Knowledge and attitude of healthcare workers and patients on healthcare associated infections in a regional in Ghana. Asian pacific journal of tropical disease 4(2):135-139. Doi10.1016/S2222-1808(14)60330-3

Biography



I am infection control nurse, expertise of infection and prevention control. I am currently work at Rajavithi hospital, Bangkok Thailand. I have experience in supervising, doing the project, consulting and research. Research and presentations include: 2013- Presented research "Effects of using video media on knowledge and health beliefs in prevention of tuberculosis transmission of newly diagnosed pulmonary tuberculosis." presented in the session "oral presentation of scholarship awardees papers" 13th International congress of the international federation of infection control. Buenos Aires, Argentina. 2016- Presented research "Development of clinical nursing practice guidelines for sepsis patients, tertiary care hospital, Bangkok, Thailand." presented in the session "poster presentation papers" International sepsis forum. Sepsis 2016 Paris, France. 2017- Presented research "Effects of using clinical nursing practice guidelines for sepsis patients, tertiary care hospital, Bangkok, Thailand." poster presentation papers" TNMC & WANS International Nursing Research Conference 2017 "Culture, co-creation, and collaboration for global health. Bangkok, Thailand.

Email: kampongant@gmail.com

คำพอง คำพอง
(นางสาวคำพอง คำพอง)
ที่เขมรแดง

เสนอโดยนางสาวคำพอง คำพอง พยาบาลวิชาชีพชำนาญการ โรงพยาบาลราชวิถี
ในการประชุม 8th Edition of International Conference on Infectious Diseases
ซึ่งจัดขึ้นระหว่างวันที่ 7 - 8 มิถุนายน 2561 ณ สหราชอาณาจักร