



Service Priorities and Programmes
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Quality-Improvement Initiative Sustains Improvement in Medical Specialty-Ventilator Ward among Nursing Staffs and Health Care Assistants

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Introduction

Effective hand hygiene can lower the prevalence of healthcare-associated infections (HCAIs); unfortunately, the prevalence of HCAs continues to rise and so poses challenges to healthcare providers to reduce such infections. Previous studies have shown that hand hygiene compliance in Health Care Providers (HCPs) is generally low and that any increase in compliance is difficult to sustain. Several barriers to hand hygiene compliance have been identified in the literature. Hand hygiene and infection prevention and control should be a priority for all health care staff. Improved commitment to hand hygiene (e.g. handwashing or use of alcohol based hand rubs) has been shown to terminate outbreaks, reduce transmission of antibiotic resistant organisms (such as, MRSA, VRE, ESBL, MRPA) and reduce overall infection rates.

Objectives

Use quality-improvement (QI) methods to develop and test a multimodal intervention to improve hand-hygiene compliance among health care providers to 80%.

Methodology

It is an observational experimental staggered interventional study. A Pre - Post Test Experimental Method was conducted in medical Specialty Ventilator Ward. Compliance was defined as acceptable hand hygiene both before and after contact with the patient or the patient's care environment. Measurement of HCPs hand-hygiene compliance was performed by covert observations made during routine patient care. Three months of pre-intervention data were collected. QI methods were used to test and implement interventions sequentially in different level of HCPs including Ward Manager (WM); Advanced Practiced Nurse (APN); Registered Nurse (RN); Enrolled Nurse(EN); Health Care Assistants(HCA); Personal Health Care Workers (PCW) and Clerks. Interventions addressed leadership support, improving all HCPs' knowledge, hand-hygiene supply availability, and behavior. Three months post-intervention, second set of data were collected and analysis.

Result

Pre-intervention compliance rate was collected on 1/3/2012 by calculation under the WHO hand Hygiene Formula. Interventions then began from 1/4 to 30/4 in 2012.

Compliance Rate was calculated 3 months post intervention on 1/7/2012 as a washout period. By 1st August 2012, compliance increased on WM, APN, RN and EN (from 75% to 91%). However, compliance increased on HCA and PCW (from 45% to 62%). There was no significant difference within the clerks. Improvement on HCA and PCW occurred only after the interventions were introduced. Identifying HCAs who failed to perform hand hygiene and offering alcohol-based hand rub to them before patient contact resulted in the greatest improvement. Improvements were sustained on all HCPs for more than 5 months. The numbers of newly diagnosis of MRDA and MRPA after admitted to Ventilator ward were also measured. The average admission rate in Ventilator ward from 1/3 to 31/8 in 2012 was 55 patients / month. There were 3 newly diagnosis MDRA and MRPA patients before the intervention began. And there were only 1 newly diagnosis MDRA and MRPA patients noted 3 months after the intervention. Although there is no significant difference on serious infection disease pre and post intervention, but the decreasing trend is an encouraging result for further study.