During [4]. for example in the united states,

During differentactivities and procedures in health care institution the hands of health careworkers might be infected with different group of micro organisms such as methicillinresistant S. aureus (MRSA), vancomycin resistant Enterococcus (VRE),(Multi Drug Resistant) MDR-Gram Negative bacteria (GNBs), Candida spp. and Clostridium difficle. Such groups of microorganisms can reside longperiod of time on hands of health care workers unless effective methods of handhygiene is applied 1-3.

As the result, their hands act as a vehicle for transmission of microbes within the healthcareenvironment causing Healthcare-associatedinfections (HAIs) 4-6. Healthcare-associatedinfections (HAIs) occur worldwide and affect both developed and developingcountries. At any time, over 1. 4 million people worldwide suffer frominfections acquired in hospital 4, 7.

It is estimated that in developed countries, 5 to 10% of patients admitted toacute care hospitals 3, 4 and 4. 5 ofevery 1000 hospital admissions 5 acquirean infection. In high risk settings, such as intensive care units, more thanone-third of patients can be affected 4. For example in the United States, the Centers for Disease Control and Prevention (CDC) estimated that 1.

7 millionHAIs contribute to 99, 000 deaths each year; they are among the top ten leadingcauses of death and the highest morbidity was among patients in intensive careunits (ICU) 7. Healthcare associated infections (HCAIs) are a major global public health problemcausing increased hospital stay, cost of therapy and mortality. The impact ofHCAIs and antimicrobial

resistance is much higher for developing countriesbecause of limited resources, healthcare infrastructure and competence 3, 5, 8.

Indeveloping countries the risk of Health care-associated infection (HCAI) is2-to-20 times higher and the proportion of infected patients can exceed 25% 3. But many studies have consistently shown that Hand hygiene is considered themost important, simplest, least expensive and effective infection preventionand control measure to prevent the spread of HAIs and cross contamination ofmulti resistant infection in hospitals 2, 4 -7. Hand hygiene is althoughassociated with decreasing transmission of Klebsiella spp. among patients and healthcare workers 1, 2.

In most cases of healthinstitution based on professional mix Nurses account highest number. They residemore times with patients than any other health care members. So their effectivepractice on hand hygiene is core in controlling the transmission of hospital acquired9.

However, previousstudies on public health institutions indicated poor practice of hand hygieneand factors related to poor compliance such as lack of time, lack ofequipment/supplies, and behavioral factors, 7, 10, poor knowledge and lack of training toward hand hygiene 10 -12 often result in HCWs non compliancetoward hand hygiene. This study focus on hand hygiene practice and associatedfactors among nurses in governmental hospitals who make the majority andproviding care to the patients 24 hours.