

## Strategies in Developing an Effective Infection Prevention and Control Program

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### Abstract

Infection prevention and control programs involve everyone; patients, healthcare workers, and visitors. In order to maintain a healthy and safe environment, any effective strategy must understand that you are dealing with people with different languages, religions, nationalities and cultural attitudes. Therefore, preventionists should have an effective ability to communicate new skills, and to encourage and motivate the people involved. Plus, have the ability to address issues quickly and identify flawed implementation habits. These habits have often formed historically within an organization. Based on my local experience in Taif, Saudi Arabia, organizations should believe strongly in their value systems and in their appropriate standards in the clinical environment. These rules should become not just guidelines but organizational laws. Zero tolerance of healthcare associated infections can be achievable for MOH hospitals by following the SHEA/IDSA practice guidelines and setting them as applicable standards or laws. For example, we observed 60% reduction of central-line associated bloodstream infection and achieved to NHSN 50 percentile of catheter associated urinary tract infections in 2012. Also, there is increasing evidence, that international or national accreditation programs can play a vital role in healthcare service improvement. Infection control auditing on infection control have increased from 76% to 86% during 2017.

**Keywords:** *Infection Prevention; Control Program; Healthcare Associated Infections (HAIs)*

### Introduction

Healthcare associated infections (HAIs) increase mortality, length of hospital stay, cost of care, bacterial resistance, antibiotic usage and other adverse events. Infection prevention and control program depends on effective prevention measures. In this short article, I am presenting my experience in developing efficient strategies for an infection prevention and control program at a regional level and in acute care hospital as well in Taif city, Kingdom of Saudi Arabia, 2017.

Hospitals under Ministry of Healthy (MOH) should be implementing specialized programs with regularly reporting to MOH; Hand Hygiene (HH), Infection Control Auditing (ICA), Healthcare Associated Infection surveillance (HAI) and Core Component Auditing (CCA).

### Methods

Taif city has twenty-two hospitals with about 15000-bed capacity serving two million populations.

Taif hospitals have become excellent in infection prevention and control programs using six major strategies through the period 2009 - 2017.

The first strategy is “High level authority support”. The infection control director should be supported and directly reported to highest level health authority. World Health Organization (WHO) stated strong recommendation for infection prevention and control program with a dedicated, trained team should be in place in each acute healthcare facility. Also, WHO stated strong recommendation for using multimodal strategies in involving of chairpersons. Another WHO strong recommendation is to regular monitoring and feedback to high authority level could achieve behaviour change [1,2].

The second strategy is “Introduce yourself”. Healthcare workers (or internal/external customers) should know and believe in the departmental mission, its vision and values. In addition, you need to also introduce your scope of services [1].

The third strategy is “Leadership behaviour”. There are seven components that the head of the department must believe in for everyone; leader should lead the transformation efforts, become a leader instead of “the boss”, a coach instead of an enforcer, change of culture from that of blaming and controlling an individual to one of support, preventing and elimination problems. Also, a new gentle didactic approach for improving processes, understand variations and how to use data effectively.

The fourth strategy is “hospital-low”. Introduce the terminology of “hospital-low”, which is a policy and procedure which must be considered for implementation at all levels.

The fifth strategy is “Effective communication skill”. The leader must have the ability to connect with different people and organisations in different religions, knowledge backgrounds, languages skills and also education levels. Leader who promote a high level of collaboration between their work group and other groups create a positive and productive atmosphere in the organization [1,3]. By this strategy, Taif region scored more than 80% in implementation of infection control standards despite of limited financial and human power resources.

The sixth strategy is “Motivation and recognition”. The leader should always support staff in different ways. One of nine top leadership behaviour that drive employee commitment is the leader have ability to inspire and motivate others have a high level of energy and enthusiasm [3].

### Outcome

There has been proven evidence in our improvement of infection control program, for example, the successfully declined of HAI, specially of reducing central line associated bloodstream infection and ventilated associated pneumonia in acute care hospitals, high scoring in application of infection control standards among Taif hospitals, and many hospitals accredited by CBAHI in 2018. The Infection Prevention and Control Program in Taif have become excellent in the following: 1) They have become a model region in implementing of World Health Organization-Hand Hygiene Program, 2) Most hospitals applied infection control standards based on ICA data (80 - 98%), 3) First MOH hospital introduced antimicrobial stewardship program in adult intensive care unit, 4) All hospitals have been applauded for their contribution to international hand hygiene day 2017 and 5) no MERS-Co-V outbreak since 2015 till to date. At an institutional knowledge exchange level, we have participated in international conferences such as European Society for Clinical Microbiology and Infectious Diseases (ECCMID) and International Congress for Prevention and Control of Infection (ICPCI) with publishing articles in international impacted journals. These significant successful outcomes have been depending on our efficient strategies. They could play an important role in developing new programs and encourage healthcare workers to introduce their best efforts to achieve higher standards and worthwhile health and safety goals.

Application of these strategies depends very much on behaviour of healthcare workers in all our various institutions. As a professional leader, you'll need to develop your own strategy to achieve your goal and be a success.

### Conclusion

Effective infection prevention and control program depends on institutional culture and introduce appropriate strategic administrative model. The major important issue is developing effective communication skill in systemic matter to achieve the targeted goal.

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