



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3572293>Available online at: <http://www.iajps.com>

Research Article

**NOSOCOMIAL INFECTION CONTROL MANAGEMENT**<sup>1</sup>Irum Jalal, <sup>2</sup>Ms. Sana Sehar, <sup>3</sup>Muhammad Afzal, <sup>4</sup>Dr. Syed Amir Gilani<sup>1</sup>Student. The University of Lahore, <sup>2</sup>Assistant professor, The University of Lahore, <sup>3</sup>associate professor. The University of Lahore, <sup>4</sup>Dean faculty of allied health sciences, The University of Lahore.**Article Received:** October 2019**Accepted:** November 2019**Published:** December 2019**Abstract:**

**Introduction:** in medical ward in X.Y.Z hospital. It was observed that there was a mismanagement of the hospital policy. The derma, eye, medical and gynae patients were treated in the same ward. All patients has one toilet which they were using. Many cases reported that, patients suffered many types of diseases during hospital stay for example Skin rashes, UTI, surgical site infection, gastroenteritis, communicable disease neutropenia and immunological disorders etc. Nightingale gave environmental theory for this purpose in which she discussed that infectious environmental stimuli and poor sanitation.

**Leadership and Management Theories:** Lewin's Force Field Model applied on this situation because it is a change theory and hospital management required to make changes in hospital policies.

**Unfreezing:** Motivate participant ready for the change. Leader and manager make some goals and strategies to improve the structure of the hospital and use the other driving forces to drive organization to change.

**Change:** New beliefs, attitudes, and behaviours are being replaced by old ones. Move hospital organization and staff towards change.

**Freezing:** It is important to maintain this change when change occurs. Strengthen the new behaviour pattern. The new attitudes, habits and beliefs are included as the new status.

**Strategies to control nosocomial infection:** Cleaning and disinfection of all areas of Patient care. Immune-compromised patients should never be placed in the same room of infectious patient. Wear gloves when treat patients. Control the risk of infection in the environment.

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Please cite this article in press Irum Jalal et al., *Nosocomial Infection Control Management.*, Indo Am. J. P. Sci, 2019; 06(12).

## INTRODUCTION:

During the duty in medical ward in X.Y.Z hospital. It was observed that there was a mismanagement of the hospital policy. The derma, eye, medical and gynae patients were treated in the same ward. All patients has one toilet which they were using. The condition of washroom was not also very good, it was not cleaned properly. Many cases reported that, patients suffered from urinary tract infection (UTI). The derma patients diagnosed with erythroderma etc. and with other highly infectious skin diseases and they were in the same room with eye patients. There was a major chances of nosocomial infection because hospital itself provide environment for the patients to came hospital with one disease and take with them another diseases. It was an upper level mismanagement, because it is the responsibility of hospital setting to make different wards for different unit patients. It was a high risk for gynae and eye patients to have nosocomial infections and also for others. Cleanliness in the toilets also very important because it was used by everyone. The shortage of housekeeper in this hospital is a major problem for more sanitation, only one housekeeper clean the 4 wards at a time which make a trouble for leader to manage.

Nosocomial, term is used for any disease developed by patient when patient hospitalized. It is an infection developed by patient during hospital stay. A new

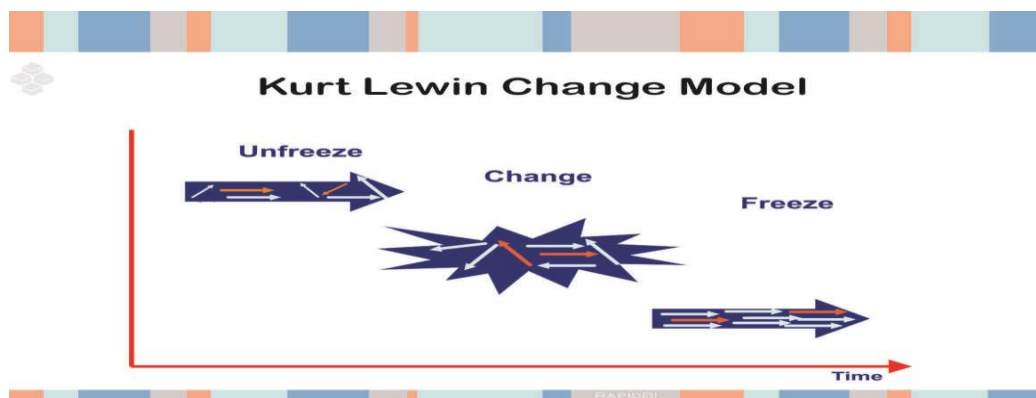
term “healthcare associated infections” is used for the type of infections caused by persistently hospital stay and it accounts for a major risk factors for serious health issues leading to death (Khan, Ahmad, & Mehboob, 2015).

There were many types of diseases during hospital stay for example Skin rashes, UTI, surgical site infection, gastroenteritis, communicable disease neutropenia and immunological disorders etc. To avoid nosocomial infection follow transmission based precaution like airborne safety measure, contact protection, droplet preventive measure. Nightingale gave environmental theory for this purpose in which she discussed that infectious environmental stimuli and poor sanitation is the major cause of mortality (Mehta et al., 2014).

## Leadership and Management Theories:

Infection associated with health care causes significant morbidity, leadership plays an important role in efforts to prevent infection. High work load and less staff in hospital and less room in the hospital for patients make the management leaders situation difficult.

Lewin’s Force Field Model applied on this situation because it is a change theory and hospital management required to make changes in hospital policies.



There were three components of this change theory known as unfreeze, change, and freeze. This model was implemented for the purpose of changing hospital management for nosocomial infection, which treated different patients at the same facility, and because there was a small housekeeper also the toilet cleaning system was bad in the hospital.

### Unfreezing:

In this component motivate participant ready for the change. Leader and manager make some goals and

strategies to improve the structure of the hospital and use the other driving forces to drive organization to change. Prepare exercises and talk about the issue with the hospital organization. This problem cannot be addressed by leader alone because it is a upper level mismanagement.

### Change:

When leader talk to upper level hospital managers and inform them about the positive outcomes of interventions, like if patients treated well more

patients came hospital because of the good reputation of the hospital, hospital management should set up new wards to promote appropriate and healthy treatment for patient, the different departments must new staff for cleanliness to promote proper health care for patients and hospitals. New beliefs, attitudes, and behaviours are being replaced by old ones. Move hospital organization and staff towards change.

#### **Freezing:**

It is important to maintain this change when change occurs. Strengthen the new behaviour pattern. The new attitudes, habits and beliefs are included as the new status.

A good leader communicates with hospital management team about staff and workload shortening and also about the patients lesser space in hospital which lead patients towards the nosocomial infection. Leaders was positively influenced by member in close and regular contact with clinical teams in wards and units. Leadership contributed to better hand hygiene, gowning, gloving procedures. A reduced prevalence of pneumonia, urinary tract infection are related with optimistic leadership. (Gould, Gallagher, & Allen, 2016).

It is an upper level mismanagement, the top level middle management reporting to, mainly responsible for setting organizational priorities and strategic plan for whole departments. Soleaders must emphasize the key objective, articulate its meaning, and support the vision with meaningful statement based on the best available information. Leaders are by nature confident and effective communicators so they can easily communicate the upper level hospital managers to treat their unit problems by giving more staff and by providing more wards for the different units patients. Failure to lead can result in failure of the system of infection control with a poor understanding of priorities and a poorly reactive team of management. This can be associated with higher infection rates among healthcare providers as well as job related infections. As a result loss of staff confidence and the deterioration in good practice could occur. (Wanzel, 2017).

#### **Literature Review:**

About 100,000 people die in American hospitals each year from health care related infection. Globally hands have been the key vectors of spreading diseases in hospital setting from one patient to another. About 50-70% of all hospital acquired infection are spread through infected hands. Hospital hygiene would follow the safe treatment model of WHO establish for hand hygiene in 2005, which

leads good practices in more than 180 countries today (Peters et al., 2018).

For a hundred hospitalized patients, seven were able to acquire on of the nosocomial infections in developing countries. The proportion of infected patients within the ICU is often as high as 51% According to extended incidence of infection in intensive care study. HCAI incidence density ranged from 13.0 to 20.3 episodes per thousand patient-day. Based on extensive studies in USA and Europe. Nosocomial infection affects large number of patients worldwide, significantly increasing mortality rate and financial losses. Approximately 15% of all hospitalized patients suffer from these infections, According to estimate reported of WHO (Khan, Baig, & Mehboob, 2017).

An infection that occurs after admission for 48 hours is considered a nosocomial infection. High nosocomial infection frequency reveals poor health care system quality. Nosocomial infection continues to be a mysterious cross-cutting issue has not yet been solved by any hospital or community. One of the leading cause of death is Nosocomial infection. Microbial agents, environmental factors, host weakness are the main causes of the nosocomial infection (Shalini, Vidyasree, Abiselvi, Gopalakrishnan, & SCIENCES, 2015).

Public sector hospitals of developing countries like Pakistan where there are no well-defined guidelines for hospital infections control and prevention. Public sector hospitals in Pakistan's large and small cities face multidimensional problems due to widespread nosocomial infections and multi drug resistant bacteria (Memon, 2006).

#### **Strategies to control nosocomial infection:**

- High quality cleaning and disinfection of all areas of patient care is essential, especially near patient surfaces (e.g. beds, bedside tables, doorknobs and equipment).
- For routine cleaning and disinfection, Disinfectant or detergents should be used.
- Cleaning duration should be as follows: twice weekly surface cleaning walls, 2-3 day floor washing.
- Immune-compromised patients should never be placed in the same room to people with a known infection.
- Compared to any adjacent halls, toilets and waiting room, the patient's room should have positive air pressure.

- Less than 2 times a day, room should be cleaned with special attention to dust.
- Wear gloves when treat patients (Mehta et al., 2014).
- Limiting the transfer of organisms in direct patient care between patients.
- Control the risk of infection in the environment.
- Prevention of infection in staff members.

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