

Compliance of Infection Control Practices At out Patient Department At A Tertiary Care Hospital

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Abstract: Health care personnel should show compliance to guidelines of Infection control practices and antimicrobial stewardship programme to prevent nosocomial transmission of infectious pathogens. Main aim of the study is to prevent spread of the infection from person to person or from contaminated health care objects which anticipated contact with blood, body fluids, secretions, excretions etc., and also reduce the transmission blood borne pathogens. Compliance to infection control practices were observed among healthcare personnel in a secret basis without knowing to them before and after giving training activities. Spillage management, care of non critical items, changing sheets on couches was very badly handled by health care personnel before training, was 25%, 20%, 15% when compared to after training, was 90%, 86.6%, 100% respectively. Outbreak response is poor before and also after training activities, was 21.6% and 41.6% respectively. Remaining infection control practices were slightly improved among health care personnel after training and educational programmes. Staff shall be educated in preventing Hospital Acquired Infections based on the analysis of the surveillance. Conduct periodic training programmes for all healthcare workers to achieve safe working conditions.

Keywords: Infection control, Outpatient department

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I. Introduction

Out Patient Departments usually have large number of patients daily. When compared to inpatient, outpatient settings lack traditional infection control infrastructure and resources supportive to surveillance activities [1,2]. Patients attending to Out Patient department presents with minor symptoms like body pains, fever to most dangerous/ contagious diseases such as tuberculosis, measles, influenza. Guidelines for isolation precautions to apply at healthcare settings were given by CDC and HICPAC, 2007 to provide safe environment at outpatient care settings[3]. Health care personnel should show compliance to guidelines of Infection control practices and antimicrobial stewardship programme to prevent nosocomial transmission of infectious pathogens. Usually patients attend to OPDs without knowing status of their HIV or HBV status, whereas inpatient care taking is not tough due to the HIV or HBV status of the patient is already known. In this case, while treating every patient attending OPD should examine cautiously by using proper personal protective equipment[4]. Main aim of the study is to prevent spread of the infection from person to person or from contaminated health care objects which anticipated contact with blood, body fluids, secretions, excretions etc., and also reduce the transmission blood borne pathogens.

II. Materials And Methods

Study is a prospective, done in the year 2016 on infection control practices at ACSR government medical college, Nellore, Andhra Pradesh. It is like a challenging study took at a tertiary care hospital by Department of Hospital administration, where training and educational activities given to all healthcare personnel through regular clinical meetings. Through these clinical meetings awareness was created about outbreak investigations, standard precautions to prevent infection transmission. Infection control practices were implemented in such a way to ensure safe working conditions for hospital staff and a safe environment for patients and visitors. A total of 60 health care personnel were selected to do this study, 20 each from doctors, nurses and housekeeping staff. Compliance to infection control practices like hand hygiene, use of personal protective equipment (e.g. gloves, gowns, masks), safe injection practices, safe handling of potentially contaminated equipment or surfaces in the patient environment etc., were observed in a secret basis without knowing to them before and after giving training activities. After collection of data, consent obtained from selected health care personnel. Then data was assessed and tabulated which is more useful to improve infection control practices.

III. Results

In this study main components for infection prevention includes educating and conducting training activities on hand hygiene, personal protective equipment (PPE), isolation precautions, environmental cleanliness, outbreak response, safe injection practices, BMW management and also reporting of infections and providing surveillance data to doctors. Care of critical items like sharps and surgical instruments, safe injection practices were responsibility of doctors and nurses. Floor cleaning and cleaning of tables and chairs, has to clean twice daily was the responsibility of housekeeping staff. On couch or stretcher sheet has to be change in OPDs after examination of the patient, is a responsibility of particular staff nurse. Semi critical items like endoscopes are using in a separate room near operation theatre, so in this study we didn't include care of these items. Spillage management, care of non critical items, changing sheets on couches was very badly handled by health care personnel before training, was 25%, 20%, 15% when compared to after training, was 90%, 86.6%, 100% respectively . Outbreak response is poor before and also after training activities, was 21.6% and 41.6% respectively. Remaining infection control practices were slightly improved among health care personnel after training and educational programmes (Table.1).

Table.1 Assessment of Infection control practices at Outpatient department

	Before training			Total	After training			Total
	Doctors (n=20)	Nurses (n=20)	Housekeeping staff (n=20)		Doctors (n=20)	Nurses (n=20)	Housekeeping staff (n=20)	
PPE	16	12	10	38	19	16	17	52
Hand hygiene	14	12	13	39	17	17	17	51
Spillage	-	4	6	10	-	18	18	36
Safe Injection practices	18	18	-	36	20	18	-	38
Care of Critical items	20	17	-	37	20	19	-	39
Care of Non critical items	4	2	6	12	18	16	18	52
Environmental cleanliness								
Floor cleaning	-	-	10	10	-	-	18	18
Tables & Chairs	-	-	8	8	-	-	18	18
Change in sheets on couches	-	3	-	3	-	20	-	20
BMW	14	12	8	34	19	20	18	57
Outbreak response	8	3	2	13	14	8	6	28

IV. Discussion

The intention of this study is to provide prevention of healthcare associated infections among the patients including out patients, in patients, staff and visitors. Outpatient settings infection prevention is more focused as there is an emergence of contagious diseases like measles, chicken pox, SARS and also re emergence of infectious diseases like tuberculosis, plague, diphtheria [5]. Infection prevention is a major public health concern, as there is an emergence of antibiotic resistance of infectious pathogens and also there is a possibility of rapid spread of infectious pathogens among communities due to increase in population and overcrowding places.

In the present study spillage management, care of non critical items, changing sheets on couches was very badly handled by health care personnel before training, was 25%, 20%, 15% when compared to after training, was 90%, 86.6%, 100% respectively . Outbreak response is poor before and also after training activities, was 21.6% and 41.6% respectively. Remaining infection control practices were slightly improved among health care personnel after training and educational programmes. This satisfactory achievement at prevention of transmission of infections in OPDs, not only because of regular training or educational programmes. It was great commitment by clinicians, laboratory doctors, staff nurses, paramedical staff, housekeeping staff and others. One major important aspect to practice infection control is provision of adequate resources to work efficiently by hospital management. Infection control programmes in skilled nursing facilities should give priority for surveillance of Infectious diseases, Antimicrobial stewardship programme, investigations of outbreak, isolation precautions, hand hygiene, staff education and employee health education practices [6].

"Clean care & safe care" is a safety challenge launched by WHO in 2005 [7]. Hand hygiene plays a vital role in controlling transmission of infections, which can be performed by soap and water or alcohol based rub depending on requirement [8]. Standard isolation precautions to be taken by health care personnel depending on infectious pathogens. Air borne precautions are intended to use for tuberculosis, droplet precautions against

influenza and contact precautions against clostridium difficile [6]. Visual alerts should be noted by clinicians for proper management and also for early recognition of outbreaks along with support of laboratory findings.

Awareness should create among health care personnel regarding emerging antimicrobial resistant pathogens which is primarily due to widespread use of empiric antibiotics, functional impairment, use of indwelling devices, hand hygiene compliance. A clinical microbiologist plays a vital role in preventing infections at hospitals and its transmission, SHEA also suggests active surveillance cultures needed to prevent transmission of multi-drug resistant organisms in hospital settings [9].

V. Conclusion

Has to assimilate surveillance data and keep the health care workers updated on changing trends in epidemiology. Staff shall be educated in preventing Hospital Acquired Infections based on the analysis of the surveillance. Conduct periodic training programmes for all healthcare workers to achieve safe working conditions.

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