

Impact of universal infection control precautions (UICP) guideline for prevention nurse's performance about blood borne disease in rural area

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Abstract

The aim of this study was to evaluate the impact of universal infection control precautions guideline done for nurses working in rural health units on their knowledge and performance and also to assess factor affecting the implementation of universal infection control precautions guideline in rural health units. A **quasi experimental design** was used. This study was **conducted** in (17) chosen randomay from (81) the total Number of rural health units in kalyobia governorate, it includes Bata- Damalo- Bantanda- Met El Hofen- Gezert bely- El Ramla- El-shemot – Dogwy- Magol- Met Raday- Met El Sebaa- Met el Ataar- Warwara – Kfar Atallaa- Pokera- Gamgara – Kafer El Hamam). A **systemic random sample** of (50) nurses, they were (chosen every third one) among (150) nurse's are working at rural health units in mention setting at Kalyobia and they were exposed to blood borne infections during their practices. **Two tools** were used. The first tool was a questionnaire to assess nurses socio-demographic data and their knowledge regarding universal infection control precautions guideline, while the second tool was an observations checklist to assess nurse's performance. Universal infection control precautions guideline was developed based on the outcome of the study tools and on the relevant literature. Same tools administered immediately after implementation, after three and six months to evaluate nurse's performance. **Results** revealed a significant improvement related to practice procedures, where nurses improved their practice from an average of less then (4%) before implementation of universal infection control precaution guideline to (70%- 100%) post implementation of universal infection control precautions guideline and during second follow-up. The study was **recommended** that, reinforcement program related to infection control practice for rural health nurses should be done periodically by Ministry of Health and population to elevate their performance and prevention from blood borne disease.

Introduction

Universal precautions are protective behaviors designed to prevent the spread of blood borne disease. These protective behaviors include: hand washing, Donning gloves, gowns and protective eye goggles. Disinfection and sterilization of equipments are also the responsibility of the nurse in order to prevent infection⁽¹⁾.

Nosocomial infection is infection that may be acquired by a patient attending any medical center or unit, hospital, and health service it is a major health problem all over the world especially in developing countries. The source may be either exogenous or endogenous^(1,2).

Prevention of nosocomial, infection poses a major challenge for health care providers. At least 5 to 10% of all people admitted to a hospital contract a nosocomial infection which is a direct cause to death^(1,2). Several studies mentioned that effective infection control programs (ICP) can prevent approximately one third of the nosocomial infections and consequently reduce hospital cost⁽³⁾. Infection control practices are used in the care of all patients and include key procedures that minimize the transmission of microorganisms⁽³⁻⁴⁾.

Turner (2004) emphasized that, in order to establish effective ICP, there is a need to employ personnel with specialists who have knowledge, practical experience and adequate training⁽⁴⁾. The center for disease control and prevention (CDC), emphasized that in-service training and educational programs on infection control ensure the compliance with standards and maintenance of basic precautions. The CDC established guidelines for health care. These guidelines, called universal precaution are protective behaviors designed to prevent the spread of blood borne disease. They are to be used consistently with all patients, thus, the concept of universality⁽⁵⁾.

Nurses themselves are exposed to the risk of infection, chiefly through contact with blood and body fluids. The protective behaviors that must be implemented when caring for patients include: hand washing, wearing gloves, wearing gowns, wearing, protective eye goggles⁽⁵⁾. Disinfection and sterilization of equipments are also the responsibility of the nurses in order to prevent the spread of infection^(3,4). Thus nurse's education is a cardinal element of an effective control program⁽⁵⁾.

Rural health units are places with a large daily turnover of a variety of individuals, ill and /or healthy. This environment is considered a good area for transfer of infection from one person to another. Infection could be minimized by the implementation of the universal infection control precautions (UICP) by the health team in general and nurses in specific^(4,6).

In Egypt, several studies related to nurses' knowledge and practice of UICP were done^(7,8). All emphasized the importance as well as, the need for more investigations in this field and the need for in service training programs for nurses^(7,8).

In view of continued reports of poor infection control practices among nurses and considering the large daily turnover of a variety of individuals, ill and healthy in the rural health units, it was decided to conduct a study to assess, identify and document the nurse's knowledge and practice regarding universal infection control. Precautions, implement a guideline according to their needs and evaluate the outcome of this UICP guideline.

From the above it seems justifiable to conduct this study to explore, assess and update the knowledge and practice of nurses working in rural health units regarding universal infection control precautions guidelines thus reduce the risk of rural health units acquired infection for nurses as well as patient.

Aim of the study:

- 1- To evaluate the impact of universal infection control precautions guideline done for nurse's working in rural health units on their knowledge and performance about blood borne disease.
- 2- To assess factors affecting the implementation of universal infection control precautions guideline in rural health units.

Subject and method:

Design:

Aquasi experimental design was used.

Setting

this study was conducted in (17) chosen randomly from (81) rural health units in Kalyobia governorate, includes Bata- Damalo- Bantanda- Met El Hofen-

