
KNOWLEDGE, ATTITUDE AND PRACTICE OF STANDARD PRECAUTIONS AMONG SELECTED HEALTH CARE WORKERS IN UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL, RIVERS STATE, NIGERIA.

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ABSTRACT

Background: *This research study centered towards determining the knowledge, attitude and practice of standard precautions among selected health care workers in the University Teaching Hospital, Port Harcourt, Rivers State. The specific objectives are; to assess the level of knowledge of standard precaution among health care workers, ascertain the attitude of health care workers in University of Port Harcourt Teaching Hospital, Rivers State towards standard precautions and to determine the level of practice of standard precaution. Related literature was reviewed.*

Methods: *Descriptive survey design was employed in this study. Out of the 400 selected health workers, Taro Yamane sample size determination was used to sample 200. A well-structured questionnaire was used to extract information from the respondents. Descriptive statistics such as mean, and frequency distribution and percentages were used to analyze all the objectives. Chi-Square was used to analyze the hypotheses posed to the study.*

Results: *The result revealed that there were more females (67.5%) who participated in the studies than the male counterparts (32.5%). Majority (42.0%) of the respondents were still within their mid age of 30 – 39 years, followed by 26% who were within the age range of 40 – 49 years of age. Furthermore, the study showed that all participants (100%) had at one time or the other had previous knowledge of standard precaution as a concept in the health care system. However, their sources of information varied from formal training (65%), colleague/friend (26%), media (5.5) and other means (3.5%). Also, the respondents opined that every employer in the health care system should as a matter of utmost importance make provision for training on standard precautions. They believed that standard precaution is helpful in the protection against health hazards in workplace ($\bar{x} = 3.40$). Some (50%) thought that recap of needle after use is a safe way to prevent needle injury and transmission of diseases. Safety measures agreed by the respondents 98% include disposal of needle and syringe immediately after use. Methods of needle disposal in UPTH include the use of waste bin (50.5%) and enclose and burn (60%). The calculated value (76.23) and table value (9.48) which mean that we do have sufficient evidence to reject the null hypothesis which states that there is no significant impact of knowledge of standard precaution on practice.*

Conclusion: *The study showed that all participants (100%) had at one time or the other had previous knowledge of standard precaution as a concept in the health care system. This study revealed that the health care workers in UPTH has positive attitude towards standard precaution. In order to promote good standard precaution and mitigate the risk of hospital acquired infections, it is necessary for health authorities in Nigeria to institute policies that make it compulsory to establish IPAC (infection control and prevention) committees in all hospitals.*

Keywords: Health Care system, Health hazards, Standard Precaution, Rivers State, University Teaching Hospital.

INTRODUCTION

A set of guidelines aimed at protecting health care workers (HCWs) from blood-borne infections is known as universal precautions (Bennett & Mansell, 2014). The concept of "universal precautions" was first proposed by the Centers for Disease Control and Prevention (CDC) US in 1987 to protect health care workers from exposure to blood-borne pathogens. The Centers for Disease Control and Prevention (CDC) recommended in 1996 that universal precautions be renamed standard precautions, which combine the major features of universal precautions and body substance isolation (BSI). The precautions apply to all body fluids, including blood, secretions, and excretions (except sweat), regardless of whether they contain visible blood, skin that is not intact, mucous membranes, or any unfixed tissue or organ (other than intact skin) from a human (living or dead), HIV, or hepatitis containing culture medium or other solutions (Standard/Universal Precautions, 2017).

A successful Infection Prevention and Control (IPAC) plan must be initiated and implemented in any healthcare facility before an evaluation of the knowledge, attitude, and practice (KAP) of standard precautions by healthcare personnel can be conducted. According to their professional group and level of experience, among other things, HCW exhibit variable KAP of standard precautions, according to numerous studies. Improved standard precaution compliance has been linked to increased professional experience, standard precaution knowledge and training, and high risk perception among health professionals. The majority of studies from around the world have shown that healthcare workers are more likely to follow standard precautions (Okechukwu and Modteshi, 2012), but some others have not (Shuper *et al.*, 2014).

Despite research on standard precautions compliance among Nigerian healthcare professionals (Ofili, 2010), the Nigerian community lacks a clear understanding of the professional disparities in KAP of standard precautions of infection control among healthcare professionals. So, our goal was to look at how well doctors, nurses, and laboratory personnel at two tertiary hospitals in Nigeria were following some of the basic measures. In order to ascertain the knowledge, attitudes, and application of conventional precautions among health professionals at the university teaching hospital in Port Harcourt, Rivers State—a developing metropolitan area with rising HIV/AIDS and other infectious disease cases—this study was created.

Problem Statement

As they carry out their clinical duties in the hospital, healthcare professionals (HCWs) run the danger of occupational risks. Roughly 12% of the working population, or about 35 million individuals, work in the health care industry, but their occupational health has been neglected

(WHO,2007). Sharps injuries and contact with deep body fluids expose them to blood-borne pathogens like HIV, hepatitis B, and hepatitis C viruses.

The Occupational Safety and Health Administration estimates that 5.6 million HCWs worldwide who handle sharp devices, are at risk of occupational exposure to blood borne pathogens. Often, these injuries go unreported for a variety of reasons, including stigma. The total HIV sero-prevalence was 4.4% according to the Nigerian sero-sentinel survey from 2005. The high incidence in the nation puts HCWs at risk for occupational disease (Shuper *et al.*, 2014).

Inadequate sharps containers and disposal facilities, bad practices like bending needles, recapping needles, detaching needles, reusing needles, a lack of supply of injection equipment, and unwarranted and unsafe injection practices, which put both patients and healthcare workers at risk, may all contribute to the rising prevalence of morbidity and mortality following exposure to blood-borne infections. In light of the aforementioned issues, the researcher made the decision to conduct a study on HCWs' knowledge, attitudes, and practices regarding standard precaution at the university of Port Harcourt teaching hospital in Rivers State.

General Objectives

The general objective of this research is to determine the knowledge, attitude and practice of standard precautions among selected health care workers in the University Teaching hospital, Port Harcourt, Rivers State.

Specific Objectives

The research objectives are:

- i. To assess the level of Knowledge of standard precautions among selected health care workers in University of Port Harcourt Teaching hospital, Rivers State.
- ii. To ascertain the attitude of selected health care workers in University of Port Harcourt Teaching hospital, Rivers State towards standard precautions.
- iii. To determine the level of practice of standard precautions among selected health care workers in University of Port Harcourt Teaching hospital, Rivers State.

Research Questions

- i. What is the level of knowledge of standard precautions among selected health care workers in University of Port Harcourt Teaching hospital, Rivers State?
- ii. What are the attitudes towards standard precautions among selected health care workers in University of Port Harcourt Teaching hospital, Rivers State?
- iii. What is the level of practice of standard precautions among selected health care workers in University of Port Harcourt Teaching hospital, Rivers State?

Research Hypotheses

H₀₁: Knowledge of standard precautions among selected health care workers do not significantly influence practice in University of Port Harcourt Teaching hospital, Rivers State.

H₀₂: Knowledge of standard precautions among selected health care workers in University of Port Harcourt Teaching hospital, do not significantly influence their attitude.

MATERIALS AND METHODS

Study design

A study's design is a road map that outlines how information about a particular issue should be gathered and analyzed (Sekaran, 2000). The descriptive survey method was utilized in this investigation. A descriptive survey study aims to give information on a situation's nature and status as it is at the time of the study.

Population For the study

Doctors, nurses, medical laboratory scientists, health aides, and waste handlers at the teaching hospital run by the University of Port Harcourt make up the study's population. There are 400 people working as health care providers who have been employed for at least 6 months and are actively involved in handling garbage, needles, sharp items, and bodily fluids.

Sample and Sampling technique

Sample size determination:

Using Taro Yamane formula for the sample size.

$$n = \frac{N}{1 + N(e)^2}$$

Where, N = population of study

n= sample size

e= level of significance or margin of error

I= unit (a constant)

Therefore,

N= 400

e= 0.05

n=?

(The choice of 0.05 level of significance is purely an exclusive decision of researcher).

Replacing the values above with the above formulae, we have:

$$n = \frac{400}{1 + 400(0.05)^2}$$

$$n = \frac{400}{1+400(0.0025)}$$

$$n = \frac{400}{1+1}$$

$$n = \frac{400}{2}$$

$$n = 200$$

Sampling Method

Multistage sampling technique was used. First stage was the sampling of 30% of the departments in the university of Port Harcourt teaching hospital which should be representative of all the twenty departments.30% of it was 6 departments.

Second stage was purposeful selection of the six departments who were more involved in handling patient blood, bodily fluids, sharp objects, needles and waste. Who also have been employed for at least 6months.The selected departments were Male and Female medical wards, Male and Female surgical wards, Theatres, medical laboratories, obstetrics and waste handlers.

Third stage is the sampling of the health care workers from the selected departments where they work using simple random sampling. 14 doctors, 19 nurses, and 11 health assistants were randomly sampled from male and female medical wards. Same number respectively

sample from male and female surgical wards. In the theatre, 12 doctors, 18 nurses, and 11 health assistants were sampled. From the laboratories 33 medical laboratory scientists and 11 health assistants were sampled. Also 27 waste handlers were sampled in waste handling department.

Instrument for Data Collection

The descriptive survey research employs the use of structured questionnaires, which was thought to be the most effective method for reaching the study's population, particularly when the instrument can be used to collect the necessary data. A questionnaire with both open-ended and closed-ended questions was the research tool employed for the study. Based on the research topics put forth for the study, the questionnaire was created from the review of the literature. The questionnaire's Section "A" contained information about the respondents' backgrounds. Section B investigated standard precaution knowledge, Section C studied standard precaution attitudes, and Section D examined standard precaution practices.

Method of Data Analysis

Data was collected, entered into the computer and analyzed using SPSS Version 21 (Statistical Package for Social Science). In order to analyze the data, descriptive statistics (frequencies, tables, percentages, mean score and chi-square test) were used.

RESULTS

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS IN UPTH

The socio-demographic distribution of health workers in UPTH is shown in table 1 below. The findings showed that 67.5% of the participants were female, and 32.5% were males. The majority (42.0%) of respondents were between the ages of 30 and 39, with 26% of respondents being between the ages of 40 and 49 while 9.5% of the population were over 50 and represents a tiny percentage of the older population. Additionally, the bulk of respondents were still in their first one to ten years of employment, with another 22.5% staying for eleven to twenty years.

Table 1: Socio-demographic distribution of health workers (n=200)

Demographic variables	Frequency	Percentages (%)
Gender		
Female	135	67.5
Male	65	32.5
Total	200	100
Age range		
20-29	45	22.5
30 – 39	84	42.0
40 – 49	52	26.0
50 – above	19	9.5
Total	200	100
Years of service		
1 – 10	116	58.0
11 – 20	45	22.5
21 – 30	36	18.0
31 – 35	3	1.5
Total	200	100

Results of analyses on marital status, religion, and occupation are shown in Table 2 below. The majority (57.0%) of the responding health professionals were married; 31% were single, and the remaining 12% had marital issues ranging from separation to the loss of a spouse. The majority of respondents (85.5%) practiced Christianity, 7% practiced Islam, and only 4.5% stated traditional religion. In this activity, nurses make up the majority (28%) of participants, followed by health assistants (22%) and physicians of medicine (20%). Lab scientists (16.5%) and Waste handlers (13.5%) round out the list.

Table 2: Socio-demographic distribution of health workers (n=200)

Demographic variables	Frequency	Percentages
Marital status		
Married	11452	57.0
Single	62	31.0
Widow/widower	13	6.5
Divorced/separated	11	5.5
Religion		
Christianity	177	88.5
Islam	14	7.0
Traditional	9	4.5
Total	200	100
Occupation		
Nursing	56	28.0
Doctor	40	20.0
Laboratory Sci.	33	16.5
Waste handlers	27	13.5
Health assistants	44	22
Total	200	100

LEVEL OF KNOWLEDGE OF THE RESPONDENTS IN UPTH ON STANDARD PRECAUTION

Results on the respondents' knowledge of standard precaution and the sources from which they learned about it are shown in Tables 3 and 4. The investigation reveals that everyone (100%) had some prior understanding of conventional precaution as a concept in the healthcare system. Their informational sources, however, ranged from formal education (65%), colleagues/friends (26%) to the media (5.5) and other sources (3.5%). There is strong evidence that standard precaution knowledge and practices are subjected to deliberate training for health professionals.

The respondents agreed very well that components of standard precaution include hand hygiene ($\bar{x} = 3.42$), use of personal protective equipment (PPE) ($\bar{x} = 3.64$), safe injection practices ($\bar{x} = 3.26$), safe handling of potentially contaminated equipment surfaces ($\bar{x} = 3.63$), respiratory hygiene etiquette ($\bar{x} = 3.36$) and anal/perineal hygiene ($\bar{x} = 3.14$). The response means of items raised under the advantages of standard precaution also revealed that the respondents agreed that practice of standard precaution has immense benefit of which some of it include protection of both health workers and patients ($\bar{x} = 3.56$), reduced spread of communicable disease ($\bar{x} = 2.85$), dealing with the issue of stigmatization and discrimination ($\bar{x} = 3.17$).

Table 3: Knowledge and source of information on Standard Precaution

Demographic variables	Frequency	Percentages	SA	A	Indifferent	SD	Mean
Awareness							
Previous knowledge of standard precaution as a concept in the health system	200	100					
Source of information							
Formal training	130	70					
Colleague/friend	52	26.0					
Media	11	5.5					
Others	7	3.5					
Total	200	100					
Components of standard precaution							
Hand hygiene is a component of standard precaution			84	11	-		3.42
Use of personal protective equipment			128	72	-		3.64
Safe injection practices			72	10	20		3.26
Safe handling of potentially contaminated equipment surfaces			126	74	-		3.63
Respiratory hygiene etiquette			81	10	10		3.36
Anal/perineal hygiene			44	13	17		3.14
Mean response >Likert mean (2.5) = significant							

Table 4: Knowledge and Source Of Information On Standard Precaution

Items	Strongly Agree (SA)	Agree (A)	Indifferent	Mean
Advantages of standard precaution				
Protects both health workers and patients	121	74	5	3.56
Reduced spread of communicable disease	48	93	49	2.85
Not associated with stigma and discrimination	56	122	22	3.17

ATTITUDE OF MEDICAL WORKERS IN UPTH TOWARDS STANDARD PRECAUTION

The study of the respondents' attitudes about typical precaution techniques was displayed in Table 5. The respondents believed that it was crucial for every employer in the healthcare system to provide training on common precautions, as evidenced by the mean response of 3.14, which was greater than the likert mean (cut-off). They believed that standard precaution is helpful in the protection against health hazards in workplace ($\bar{x} = 3.40$). The low response mean of 1.1 and 1.6 is an indication that the health workers in UPTH do not believe standard precaution is not really necessary or that it is mainly for those working in the theatre respectively. On the contrary they believed that standard precaution helps to prevent infections ($\bar{x} = 2.80$) and therefore should always be observed while carrying out any form activity in the hospital.

Table 5: Attitude of the Respondents towards Standard Precaution

Variable	Strongly agree	Agree	Indifferent	Disagree	Mean
Attitude towards standard precaution					
Employers should always provide training on standard precautions	27	172	1		3.14
Standard precaution are useful in protecting against hazards in workplace	86	107	7		3.40
Standard precaution are not really necessary in hospitals	-	2	16	182	1.1
They are only necessary for theatre workers	-	28	72	100	1.64
Standard precaution can prevent spread of infections so should be observed always	58	93	49		2.8
Standard precaution requires one to recap needles after use to avoid needle injury and infection	80	120			3.4

n = 200, mean response > 2.5 = significant

Similar to table 5, respondents in table 6 responded that it is essential to use double hand gloves (89%), goggles or a face mask (65%), a gown (90%), and boots (85%) when working with patients who have HIV or HBV. The aforementioned evidence amply demonstrates the positive attitude the UPTH personnel have toward routine precaution.

Table 6: Attitude of the Respondents towards Standard Precaution N (%)

Items	Strongly agree	Agree	Indifferent	Disagree
Management of HIV and HBV positive patients: the following precautionary measures should be adopted while handling patients with the above viruses:				
Wearing double hand gloves	178(89.0)	22(11.0)		
Wearing goggles/face mask	67(33.5)	130(65.0)	3(1.5)	
Wearing gowns/aprons	180(90.0)	20(10.0)		
Wearing boot/wear	170(85.0)	27(13.5)	3(1.5)	

PRACTICE OF STANDARD PRECAUTION

Results on respondents' use of standard precaution are shown in Table 7. The outcome showed that the personnel had adopted some procedures for dealing with blood and bodily fluid spills. The majority (54.5%) clean their floors before and after medical procedures. 44% of people promptly wipe infected goods with an antiseptic. In order to maintain the hospital rooms free of infections, the medical staff at University of Port Harcourt Teaching Hospital also utilizes soap and water to clean infected surfaces (96%) and 0.5% chlorine bleach (94%) were also some ways to disinfect rooms.

Some (50%) thought that recap of needle after use is a safe way to prevent needle injury and transmission of diseases. Safety measures agreed by the respondents include disposal of needles and syringes immediately after use (98%). Methods of needle disposal in UPTH include the use of waste bin (50.5%) and enclose and burn (60%).

Table 7: Practice of Standard Precaution by the Respondents

Items	Strongly agree	Agree	Indifferent	Disagree
Ways to handle spill of blood and body fluid. They among others include:				
Clean the floor during and after any medical activity.	109(54.5)	91(45.5)		
Clean with an antiseptic immediately	58(29.0)	88(44.0)	54(27.0)	
Use soap and water to clean affected surface	192(96.0)	8(4.0)		
Use 0.5% chlorine bleach	67(33.5)	94(47.0)	39(19.5)	
Injection safety practices				
Recap needle after use	100(50)	66(33.0)	34(17.0)	
Detach needles from syringe immediately after use	-	56(28.0)	69(34.5)	75(37.5)
Dispose needle and syringe immediately after use	196(98.0)	4(2.0)		
Methods of needle disposal				
Use of waste bin	90(45.0)	101(50.5)	9(4.5)	
Enclose and burn	78(39.0)	120(60)	2(1)	
Bury them underground	9(4.5)	37(18.5)	34(17.0)	120(60)
Methods of handling re-usable instruments				
Boil beyond 100°C	77(38.5)	89(44.5)	13(6.5)	21(10.5)
Soak in a disinfectant after washing with soap and water	121(60.5)	66(33.0)	13(6.5)	
Putting in an autoclave	187(93.5)	9(4.5)	4(2.0)	
Sterilize before and after use	188(94)	8(4.0)	4(2.0)	

TEST OF HYPOTHESIS

Statement of hypothesis: knowledge of standard precautions among health care workers do not significantly influence practices in University of Port Harcourt Teaching hospital, Rivers State.

		Practice of standard precaution			Total
		D	A	SA	
n=200					
	D	0(0)	0(0)	11(3.14)	11
Knowledge of standard precaution	A	0(0)	59(46.73)	46(29.93)	105
	SA	54(22.68)	30(37.38)	0(0)	84
Total		54	89	57	200

chi square is given by:

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

$$\text{Chi square} = 43.25 + 3.22 + 1.46 + 19.67 + 8.63 = 76.23$$

$$\text{Table value} = 9.488$$

Since the calculated value is higher than the table value, we have sufficient evidence to reject the null hypothesis

DISCUSSION

According to the study, more women (67.5%) than men (32.5%) participated in the study. These women were mostly between the ages of 40 and 49 and had between one and ten years of work experience. Additionally, the analysis revealed that there were more nurses than doctors. This finding is comparable to that of the study of Arinze-Onyia, *et al.* (2018) which found that the majority of health workers were nurses working in the wards. This claim is plain given the fact that more nurses were employed to help doctors and other healthcare professionals to care for the increasing number of people who were admitted in hospitals. This study is comparable to one that was done in France where nurses made up 44% of the group of HCWs analyzed, and another one that was done in Nigeria where nurses made up 50.7% of all the hospital workers studied. This looks to be an indication of the proportion of nurses among HCWs in general (Atif *et al.*, 2013).

Given how long ago the policy on SP was created, it is not surprising that there was a high level of knowledge about Standard Precaution (SP). None of the health care professionals claimed to be unaware that safety measures should be used throughout any type of medical procedure. Everybody (100%) agreed that they had heard of the idea at some point, whether it was through training (school or a workshop), a friend or coworker, the media, or another source. This is in line with the research conducted in the United Arab Emirates, where 97% of respondents were conversant in the idea (Sreedharan, 2011). (Amoran and Onwube, 2013)

both claimed to possess a comparable level of knowledge. This demonstrated the level of interest of HCWs in SP, which is most likely related to their belief that Standard precaution is essential for infection control in contexts involving the public health. The majority of the respondents (82.5%) (in the current survey had favorable attitudes toward universal precaution, which is consistent with other findings (Parmeggiani *et al.*, 2010).

Once more, the demonstrated favorable attitude may be the result of their trust in standard precaution (SP), as the SP policy is a solid package intended to stop the spread of nosocomial diseases and guarantee the safety of HCWs while at work. Wearing of PPE was optimally practiced, which is positive because it is essential for infection management in addition to being a key element of SP. This is consistent with a prior study (Punia *et al.*, 2014). It might be assumed that the respondents' great familiarity with standard precautions prompted them to view them favorably.

In this survey, the respondents (82.5%) have a good attitude toward wearing gloves, a mask, aprons, and boots although in another study, only 34% of respondents reported wearing gloves and coveralls on a regular basis. The primary explanations for this poor PPE use included sporadic access to PPEs, a lack of time to wear them, and the fact that doing so interferes with clinical duties (Mukherjee *et al.*, 2016). This demonstrated the need for management and HCWs to work together as closely as possible to implement Standard precaution completely. Secondly, the management should establish an enabling atmosphere by routinely providing PPEs and other necessary resources and supervising their use, while the HCWs should guarantee complete compliance by adhering to established protocols and constantly utilizing resources.

This study shows that standard precaution is highly practiced in UPTH. Majority 54.5% of the respondents asserted that whenever there is spill of blood or body fluid, such is cleaned immediately with either of antiseptic, use of soap and water or 0.5% chlorine bleach.

Majority (60%) do not detach needles from syringe after use. This is a better standard precaution as detaching and capping after use may dispose a health worker to infections. This practice is in line with research conducted by Tobin *et al.*, (2013) where some of the respondents confirmed that they do not recap and detach needles from syringe after use. Abubakar *et al.* (2015) in their work; assessment of knowledge and practice of standard precautions among nurses working at Federal Medical Centre Gombe also opined that trying to detach or recap needles is not a good practice as it is dangerous and may lead to body injury.

The hypothesis test in the work showed that the influence of knowledge on practice is significant since the calculated chi square value of 76.23 is greater than the table value of 9.48, we have sufficient evidence to reject the null hypothesis. Knowledge is the recollection of information and is a requirement for effective behavioral change. It is the most crucial instrument for changing behavior (Gbefwi, 2014). Under the universal precautions, all patients' blood and some bodily fluids were seen as having the potential to spread blood-borne diseases like HIV, HBV, and others (Adim *et al.*, 2009). Knowledge in infection control has been reported as a major factor influencing the practice of IPAC in health facilities in Nigeria (Adinma *et al.* 2009; Okechukwu and Modteshi, 2012) and other countries of the world. Also, knowledge may be gotten through seminar, media, training etc. The second research hypothesis test was also significant as the calculated χ^2 of 199.8 was greater than table value of 10.597 thus we have sufficient evidence to reject the null hypothesis and accept that Knowledge of standard precautions among selected health care

workers in University of Port Harcourt Teaching hospital, do significantly influence their attitude. This is line with the study of Luo *et al.* (2010) where success in the implementation of SP guidelines depends on the factors such as optimal awareness and a positive attitude in all health care staff and of receiving continuing education by the employees.

CONTRIBUTION TO KNOWLEDGE

This study has contributed or added to the existing knowledge, attitude and practice of standard precaution. The study has shown that UPTH needs regular training to improve standard precaution in the practice of health care. It has also shown that there is need to encourage the use of available PPE by health workers.

CONCLUSION

There has always been a problem with basic precautionary measures, particularly in the Nigerian system. Either there aren't enough safety measures in place, or the medical staff lacks the self-control to always use them. This study was carried out to ascertain the level of knowledge, attitude, and standard precaution practice in UPTH. The evidence demonstrated that the medical staff was not at all ignorant of common safety measures. Most of them had formerly taken part in training that taught them the value of following SP standards in order to protect themselves or others. Some people were informed about it through a colleague, media outlet, etc.

While principles of standard precaution should be strictly adhered by surgeons and physicians for their own safety as well as setting leadership roles for their co-workers, success in the implementation of SP guidelines depends on the factors such as optimal awareness and a positive attitude in all health care staff, these goals are not reached without qualified employee receiving continuing education. This study revealed that the health care workers in UPTH has positive attitude towards standard precaution. Bodily fluid or blood spillage were being cleaned immediately they occur with disinfectants to avoid possible infectious contamination. Use of personal protective equipment such as gloves and face masks, and injection safety were some of the safety measures taken by respondents.

Frequent cleaning with antiseptic is been practiced in the hospital. Soap and water were been used for hand hygiene, sometimes chlorine bleach is used to disinfect contaminated surfaces. Even though some healthcare professionals are unaware that recapping needle can be injurious, however needle and syringe were being disposed immediately after use. Methods of disposal include use of waste bin, incinerator burning and burying in the ground. In all, all the objectives set out for this work were realized.

RECOMMENDATIONS

In order to promote good standard precaution and mitigate the risk of hospital acquired infections, it is necessary for health authorities in Nigeria to institute policies that make it compulsory to establish IPAC (infection control and prevention) committees in all hospitals. Such policies should also outline measures that ensure that IPAC resources are made routinely available and that knowledge and practice of standard precautions are improved through regular IPAC training of hospital staff, with special emphasis on newly qualified health workers such as house officers and staff nurses.

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CONFLICT OF INTEREST OF INTEREST

The authors declare that there is no conflict of interest between them.

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