

## Assessment of Nurses Implementation of Universal Precautions in the AIDS Wards of Ibn-Zuheir and Ibn- Al- Kahteb Hospitals

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### الخلاصة:

دراسة وصفية اجريت في مستشفيات للمرضى المعدية في بغداد للفترة من الاول من شهر آب للعام (٢٠٠٣) ولغاية الاول من تشرين الاول للعام (٢٠٠٤) للتعرف على مدى تنفيذ الملاكات التمريضية العاملة في ردهات العوز المناعي المكتسب للاحتياطات العامة للمرضى المصابين بالعوز المناعي المكتسب وعلاقتها ببعض المتغيرات. تضمنت عينة البحث من (٥٠) ممرض وممرضة يعملون في ردهات العوز المناعي المكتسب لمستشفى ابن زهر وابن الخطيب. تكونت اداة الاستبيان من (٢٠) فقرة تتعلق بالمعلومات الديموغرافية للممرضات وقررات الاحتياطات العامة. تم تحديد صدق الاستمارة من خلال عرضها على (٤) خبراء في مجال الاختصاص، وقد طبق الاحصاء الوصفي والاستنتاجي لتحليل المعلومات. أظهرت النتائج بأن أغلب الممرضين هم من الذكور ولهم خبرة في مجال العمل من (١٦-٢٠) سنة، وأن هناك علاقة ذات دلالة احصائية بين تنفيذ الاحتياطات العامة وسنين الخدمة. وقد أوصت الدراسة باعداد وتنفيذ برامج تدريبية تخصصية للممرضين العاملين في جميع المؤسسات الصحية حول الاحتياطات العامة.

### Summary

A descriptive study was conducted at two Epidemic Hospitals in Baghdad from 1<sup>st</sup> of August (2003) to 1<sup>st</sup> of October (2004) in order to identify the nursing staff working in AIDS ward to implementation of universal precautions for patients with AIDS and relation to some variable. The sample is consisted of (50) nurses who are working in AIDS ward in Ibn- Zuheir and Ibn- Al- Kahteb Hospitals. Instruments consist of (20) items related with demographic characteristics of nurses and universal precautions items. Validity of the instrument was established through a panel of (4) experts in specific fields. Descriptive and inferential statistics procedure were applied to the data analysis.

Results its show that most of nurses was males and they have (16-20) years of experience and there are significant relationship between the implementation of universal precautions and years of experience.

The study recommended to planning and implementing specific training programs for nurses in all health institutions about universal precautions.

### Introduction

A acquired Immune Deficiency (AIDS) is a chronic disease characterized by frequent and sometimes life-threaten exacerbations that can include infections, malignancies and neurological consequences<sup>(1)</sup>. Is caused by the human immunodeficiency virus (HIV). By killing or damaging cells of the body s immune system, HIV progressively destroys the body ability to fight infections and certain cancers<sup>(2)</sup>.

As of the end of 2001, an estimated 37.8 million people world-wide 35.7 million of them were adults and 2.7 million of them were children younger than 15 years were living with AIDS. More than 70 percent of those people (28.1 million) live in Sub-Saharan Africa, another 15 percent (6.1 million) live in South and South East Asia<sup>(3)</sup>.

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AIDS is spread by sexual contact with an infected person , by sharing needles and /or syringes with some one who is infected or, less commonly through transfusions of infected blood or blood clotting factors <sup>(4)</sup>.

Transmission of microorganisms in hospital can occur in both direction by contamination of needles and syringes and contact with infected patients fluids and blood therefore the caregiver should be use standard precautions and strict aseptic technique<sup>(5)</sup>. There for the aims of the study were assess the nurses implementation of universal precautions in AIDS ward, and to find out the relationship of their implementation of precautions measures with nurses level of education and years of experience .

## Methodology

A descriptive study was conducted on (50) nurses ( male and female) working in the AIDS wards in Ibn-Al-Kahteb and Ibn –Zuheir Hospitals in Baghdad from 1<sup>st</sup> of August 2003 – 1<sup>st</sup> of October 2004.

The questionnaires which was developed in this study consist of 10 items concerned with demographic data of the nurses ( sex ,level of education ,years of experience ) and 10 items concerned with universal precaution measures. The validity of instrument established through a panel of (4) experts in specialty fields. Data were analyzed through descriptive statistics:- frequency, percentage, mean of score and inferential statistics (Chi-square).

## Results

**Table (1): Demographic Characteristics of nurses**

<b>Variables</b>	<b>Frequency</b>	<b>Percent</b>
<b>1. Sex</b>		
- female	6	12
- male	44	88
<b>2. Level of education</b>		
- Intermediate nursing school.		
-Secondary nursing school.	10	20
- Medical Institute	25	50
	15	30
<b>3. Years of experience</b>		
- 1-5 Years	10	20
- 6-10 Years	2	4
- 11-15 Years	12	24
- 16-20 Years	20	40
- 21-25 Years	6	12

The demographic characteristics of 50 nurses indicate that most of them were males(88%) ,(50%) of them were graduated from secondary school and the majority of them had 16-20 years of experience (40%) .

**Table (2): Nurses implementation of universal precautions in the AIDS ward**

Universal precautions	Yes		No		Mean of Score No: 50
	F	%	F	%	
1. Worn gown when clothing may be soiled with fluid ,blood , secretion or excretions.	45	90	5	10	1.9
2. Wash hand with antiseptic solution immediately after exposure to clients fluids and blood.	3	6	47	94	1.0
3- Dispose needles or used instruments immediately .	35	70	15	30	1.7
4. Put the wastes container far away from care giver .	10	20	40	80	1.2
5. Avoid needle bending after used.	5	10	45	90	1.1
6. Hand washed thoroughly and immediately if they become contaminated with blood .	7	14	43	86	1.1
7. Worn gloves when handling blood specimen, blood-soiled, body fluid and excretions and secretions.	20	40	30	60	1.2
8. Boiling of used equipment for 20 minutes.	50	100	0	0	2.0
9. Change all clothes after leave the hospital.	10	20	40	80	1.2
10. Regular periodic exam .	45	90	5	10	1.9

It was found that the implementation of nurses for universal precautions in the AIDS ward that the boiling of used equipment for 20 minutes got high mean of the score (2.0) and hand washing with antiseptic solution immediately after exposure with patients fluid and blood have low mean of score (1.0) .

**Table (3): Relationship between nurses implementation of universal precautions and their level of education**

Implementation \ Level of education	Yes	No	Total
Intermediate	60 56	71 75	131
Secondary	73 73	86 86	159
Institute	97 101	113 109	210
<b>Total</b>	<b>230</b>	<b>270</b>	<b>500</b>

$\chi^2$  : observed : 0.78      df : 2      Critical : 5.99       $p \leq 0.05$

This table indicate that there was no significant relationship between the nurses implementation for universal precautions and their level of education .

**Table (4): Relationship between nurses implementation of universal precautions and year of experience.**

Implementation Years of experience	Yes	No	Total
1-5	46 40	54 60	100
6-10	9 7	11 13	20
11-15	55 48	65 72	120
16-20	92 96	108 104	200
21-25	27 38	33 22	60
<b>Total</b>	229	271	500

$X^2$  : observed : 12.33      df : 4      Critical : 9.48      p  $\leq$  0.05

This table indicate that there was a significant relationship between the nurses implementation of universal precautions and their years of experience.

## Discussion

The present study, (table 1) findings showed that the majority (88%) of nurses were male, (50%) of them had secondary school graduated and 40% had 20 years of experience. These results means there are a shortage of qualified universal nurses may affected on implementing of universal precautions .

Regarding to the implementation of universal precautions by nurses in the AIDS ward. Its shows that the regular periodic exam got high mean of score. This result agree with <sup>(6)</sup>, which recorded that only 54% of health care workers in the united states who have been documented as having tested HIV and following occupational exposure. Another study mention that the vast majority (48%) of them had percutaneous ( puncture / cut) exposure , the remaining exposures included 5% mucous membrane exposure and 1% unknown route of exposure <sup>(7)</sup>.

There was significant relationship between nurses implementation of universal precautions and years of experience .These findings supported by Williams and others,1994 who stated that the health care giver with a high number of training experiences in universal precautions were more likely to use gloves if contact with blood and less likely to recaps needle after giving an intravenous line <sup>(8)</sup>. Presented that the health care workers required training in standard procedure based on universal precautions and the prioritized allocation of the necessary protective supplies and equipment such as sterilization devices for dentistry and gloves for surgery.

## Recommendations

- 1- Training courses should be applied periodically to the health care givers concerning of universal precautions.
- 2- Safety measures and instructional devices should be posted on the walls and doors to encourage them to follow during the work.
- 3- Preparing all health care facilities and establishing standards incinerators for disposing contaminated sharps and wastes.

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