

Assessment Of Nurses' Knowledge Toward Hepatitis C Virus

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Abstract

Hepatitis C virus infection is a significant source of morbidity and mortality in the Middle East, and incidence has sharply increased recently, perhaps as a result of rising injection drug usage. To direct preventative and care activities, current estimates of prevalence at the national level are required; however, these figures are not currently available through disease surveillance systems. **Objective** to determine the proportion of nurses who currently have HCV infection. **Methodology** In the AL-Husain Teaching Hospital in Al-Nasiriya City, a descriptive cross-sectional study was carried out, and 72 nurses working in the hemodialysis unit were selected to participate. to evaluate their understanding of viral hepatitis C. To complete the questionnaire, come face-to-face with the nurses. To ensure the validity of the questionnaire, it was shown to (16) experts from various universities. SPSS was used for the descriptive and inferential data analysis of the data. **Result** According to a self-management questionnaire designed to measure nurses' understanding of the disease, (11.11%) of hemodialysis nurses have moderate expertise. **Conclusion and Recommendation** There are no cases of viral hepatitis among nurses and surprising that more than half number of nurses were checking regularly every 6 or 8 months to sure that they were free and healthy from hepatitis C and B, compared with poor knowledge of viral hepatitis. The study recommended that nurses to get higher degree of education such as bachelor's, master in nursing.

Keywords: hepatitis c virus, assessment, nurse, hemodialysis, needle stick injury.

Introduction

A major challenge for them is the possibility of being exposed to hepatitis disease when working at a dialysis center or caring for a patient with viral hepatitis. Professional nurses can contribute significantly by using their knowledge and expertise to stop the spread of disease and injuries from needle sticks and other sharps among dialysis nurses and patients with chronic hepatitis (1). Additionally, nurses can assist and encourage initiatives for lifestyle improvement to enhance results. They can

actively enhance their patients' physical and psychological conditions (2).

Hepatitis is an international public health problem that significantly increases liver-related morbidity and mortality by inflaming the liver tissue. It is contracted from person to person from birth or afterwards (3). Viral hepatitis comes in five different subtypes: A, B, C, D, and E. (4). Every year, millions of people's health is negatively impacted by viral hepatitis, which results in death and disability (2). The lives of millions of people who have viral hepatitis are in danger (5). Furthermore, viral hepatitis

has a severe impact on people's lives, societies, and healthcare systems. An estimated 1.4 million people die each year from this epidemic, along with liver cancer and cirrhosis brought on by viral hepatitis. Hepatitis infection causes as many deaths as HIV and TB combined (6).

There are five different types of it, and three of them—hepatitis A, B, and C virus—are crucial to public health care. Hepatitis B is thought to affect 47% of people, hepatitis C is thought to affect 48%, and the remaining two—hepatitis A virus and hepatitis E virus—are transitional illnesses that affect the liver of the human body and can be transmitted from one person to another. About 80% of hepatocarcinomas are caused by hepatitis B and C virus infections (HCC) It ranks fifth among cancers that affect males and seventh among those that affect women (7).

A viral infection called viral hepatitis results in necrosis and inflammation of the liver cells, which leads to a variety of clinical, biochemical, and cellular alterations. Hepatitis A, B, C, D, and E are the five kinds of viral hepatitis that have been discovered to date. Hepatitis A and E have a comparable fecal-oral route of transmission, whereas hepatitis B, C, and D share a number of traits. The disease is important because it is quickly spread, has a high morbidity rate, and requires prolonged absence from work or school. 60 to 90 percent of viral hepatitis cases are thought to go undetected. The prevalence of subclinical events, failure to recognize mild instances, and misdiagnosis are thought to be the main contributors to underreporting. Many people cannot recall an earlier episode or the onset of hepatitis symptoms, despite the fact that roughly 40% of all Americans have antibodies to the hepatitis A virus (8).

By 2030, the World Health Organization wants to see a 90% decrease in new HCV infections. Without regard to risk

factors, an HCV vaccination would stop transmission and greatly lessen the burden of HCV-related disease worldwide (9). Especially in poorer nations, the highly contagious disease HCV has become a serious public health issue and a leading cause of illness and mortality (10). A half million individuals per year are killed by the Hepatitis C virus, which is transferred through the blood and causes liver cancer and end-stage liver disease (11). With carrier rates ranging from 2% to 8%, the Middle Eastern countries and Iraq are in the intermediate endemicity zone. Percutaneous injuries are one of the main ways that Hepatitis B Virus and HCV spread (12). An RNA virus with an envelope, the hepatitis C virus (HCV), spreads from person to person through blood contact. Only people are infected, and liver cells are its main target (13).

The World Health Organization estimates that three million people suffer injury from needle stick injuries each year. The danger of nurses and other healthcare workers getting blood-borne illnesses like hepatitis B or C virus is very high. According to study, the chances of a needle stick injury (NSI) transmitting a disease to a health care worker (HCW) range from 6% to 30% for HBV and from 3% to 10% for HCV. Hepatitis C virus seroconversion rates in occupational exposure have been observed to range from 1.8 to 2%. (0-7 percent) (14).

Methodology

A descriptive cross sectional study was conducted in AL-Husain Teaching Hospital Al-Nasiriya city, on consists of 72 of them participate in the study of the nurses have been chosen working in hemodialysis unit, to assess their levels of knowledge about viral hepatitis C. Face to face with the nurses in order to fill out the questionnaire. Ethical considerations are necessary for protecting a person's rights related to data collected taken into account during sampling,

nonprobability purposive sampling which consists of 72 of them participate in the study.

A self-management questionnaire was constructed to assess knowledge toward hepatitis disease among nurses appeared that (11.11 %) of hemodialysis nurses have moderate knowledge. On the other hand, the study indicates that there are no significant Association between nurses knowledge

about hepatitis diseases and nurses age, gender, marital status, residency. A significant Association between overall assessment of nurses knowledge and training sessions about infection control (F test = 3.21; P value = 0.05). While completely different in the knowledge and level of education the relationship exists.

Results and discussion

Table (1) Descriptive Statistics (Frequency And Percentage) for Medical Information on Viral Hepatitis for Nurses

Items	Sub-groups	Study group Total = 72	
		Frequency	Percentage
1.Vaccinated against hepatitis	No	54	75.0
	Yes	18	25.0
2.Infected with hepatitis	No	72	100.0
	Yes	0	0.0
3.Type of Hepatitis	No	72	100.0
	HAV	0	0.0
	HBV	0	0.0
	HCV	0	0.0
	HDV	0	0.0
	HEV	0	0.0
4.Periodic test for hepatitis	No	8	11.1
	Yes	64	88.9
5.Interval between tests/ Months	0	8	11.1
	6	33	45.8
	8	5	6.9
	12	23	31.9
	24	3	4.2
6.Rapid test for HBc	Negative	72	100.0
	Positive	0	0.0
7.Rapid test for HCV	Negative	72	100.0
	Positive	0	0.0

Table (1) shows descriptive statistics (frequency and percentage) for medical information on viral hepatitis for nurses, it explains that the majority of the nurses subgroup are: nurses who don't vaccinated against hepatitis (75%), nurses who are not infected with viral hepatitis (100%), those who have periodic tests for viral hepatitis (88.9%), those who do diagnostic tests each 6 months (45.8%), those who had negative results for the rapid tests of HBC (100%), as well as for the result of HCVs rapid test which is (100%).

Regarding to the finding of nurse's medical information on viral hepatitis in table (1). The findings indicated that (25.00%) of nurses vaccinated against hepatitis and there was no infection with viral hepatitis in (100.00%) of the nurses in hemodialysis unit. In a descriptive cross-sectional study conducted by (Adekanle et al., 2015), he found that (65%) received vaccine against hepatitis. This finding disagrees with our finding. In a descriptive study conducted by (Konlan et al., 2017), the finding indicated that only (44.4%) of nurses

had taken the vaccine against hepatitis B. This finding slightly similar to our results.

Taking into account that there is a protocol followed for wearing protective clothing, gloves while working, regardless of individual cases of non-compliance. Regarding to hepatitis test, the current study found that (100%) of nurses had negative HBV/HCV infection. This result was agreeing a previous study was found that (65.2%) of nurses had negative result. (Adekanle et al., 2015)

According to the result, might be due to protective procedure of wearing gloves or protective clothing, while viral hepatitis B/C asymptomatic then nurses are actually infected but they don't committed with periodic inspection, our opinion result because low accuracy of hepatitis B/C strip ready test which has a small percentage of error, so advise them for more accurate tests such as ELISA. It is more expensive and results are appeared in a longer period of time comparing with strip ready test.

Conclusion

There is a good percentage of the number of nurses who participated in infection control courses inside Iraq. There are no cases of viral hepatitis among nurses and surprising that more than half number of nurses were checking regularly every 6 or 8 months to sure that they were free and healthy from hepatitis C and B, compared with poor knowledge of viral hepatitis.

Recommendation

Encourage all nurses who works in hemodialysis unit to participate in educational program to raise their information regarding general information and the main principle regarding transmission with hepatitis patient. The study recommended that nurses to get higher degree of education such as bachelor's, master in nursing.

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