شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

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قسم

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HANAA ALY

Nurses' Performance Regarding the Application of Preventive Measures of Hepatitis C virus Infection among Children Undergoing Hemodialysis

Thesis

Submitted for Partial Fulfillment of Requirement of Master Degree in Pediatric Nursing

By

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2021

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Wafaa Ahmed Mohamed

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List of Abbreviations

Abb.	Full term
AAMI	Advancement of Medical Instrumentation
ABG	Arterial Blood Gases
ACT	Activated Coagulation Time
ADL	Activity Daily Life
AKI	Acute Kidney Injury
APPT	Activated Partial ThromboplastinTime
AVF	Arterio Venous Fistulsa
CKD	Chronic Kidney Disease
CPR	Cardio pulmonary Resuscitation
CVL	Central Venous Line
ESRD	End Stage Renal Disease
FDA	Food and Drug Administration
HB	Hemoglobin
HCT	Hematocrit
H.H	Hand Hygiene
HAV	Hepatitis A Virus
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HD	Hemodialysis
HGB	Hemoglobin

List of Abbreviations

Abb.	Full term
INR	International Normalized Ratio
IPC	Infection Prevention and Control
KDIGO	Kidney Disease Improving Global Ooutcome
NANDAI	North American Nursing Diagnosis Association International
NCP	Nursing Care Plan
ND	Nursing Diagnosis
NHANES	National Health and Nutrition Examination Survey
PCR	Polymerase Chain Reaction
PH	Power of Hydrogen
PPE	Personal Protective Equipment
PT	Prothrombin Time
PTT	Partio Thrombo Plastin Time
AIT	Alanine Transaminase
RBC	Red Blood Cells
RNA	Ribonucleic Acid
WBC	White Blood Cells
WHO	World Health Organization

Nurses' Performance Regarding the Application of Preventive Measures of Hepatitis C virus Infection among Children Undergoing Hemodialysis

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Abstract

Background

Hemodialysis, widely used in the clinic, is an effective means for the treatment of end-stage renal disease and prolongs lives of child with uremia. However, due to the long-term blood transfusion therapy, the lower resistances of the body, as well as cross-iatrogenic infection, children undergoing hemodialysis were highly vulnerable to viral hepatitis infection.**Aim of the study** was to assess nurses' performance regarding the application of preventive measures of hepatitis C virus infection among children undergoing hemodialysis. **Research design**: A descriptive exploratory design was utilized in this study**. Settings** : This study was conducted at hemodialysis unit in Beni– Suef hospital and Elwasta – Central Hospital. **Subject:** A convenient sample of all available nurses working at hemodialysis units who provide direct pediatric care and willing to participate in the study. The sample was composed of 55 nurses (50 female &5 male). **Tools of data collection:** The study tools were included: (1) Pre designed questionnaire sheet which included two parts.The first part to assess characteristics of the studied nurses, second part to assess nurses' knowledge regarding hepatitis C Virus infection in children undergoing hemodialysis (2): Observational check lists to assess the studied nurses' practices regarding prevention of hepatitis C Virus at hemodialysis units. **Results**: More than half of the studied nurses their ages ranged from 30-<35years almost, one third of them had diploma nurse and one third of them had 10-< 15 years of experience, there is a statistically significant relation between the studied nurses' characteristics and their total level of practices regarding preventive measures of HCV undergoing hemodialysis, there is positive correlation between the studied nurses' total level of knowledge and their total level of practices regarding preventive measures of hepatitis C Virus undergoing hemodialysis**. Conclusion:** More than half of the studied nurses had good level of knowledge regarding preventive measures of hepatitis C Virus infection among children undergoing hemodialysis while, aminority of them had poor level of knowledge. Also, it was found that, less than half of the studied nurses had competent level of practices regarding preventive measures of hepatitis C Virus undergoing hemodialysis. **Recommendation**: Continuous nursing educational intervention and in-service training programs on dialysis units should be well implemented to upgrade the knowledge and skills of practicing nurses's regarding preventive measures of hepatitis C Virus undergoing hemodialysis.

Keywords: Hepatitis C Virus, Hemodialysis in Children, Nurse's Performance

Introduction

Hepatitis C Virus (HCV) is a blood-borne pathogen that appears to be endemic in many parts of the world. However, substantial geographic and temporal variations in the incidence and prevalence of HCV infection, largely due to differences in regional risk factors for the transmission of HCV. The highest prevalence of HCV has been found in Egypt while, the prevalence of HCV infection is higher in most subgroups of chronic Kidney Disease (CKD) children than in the general children **(Neul et al., 2018).**

Hepatitis C Virus infection remains frequent in children receiving long-term dialysis both in developed and less developed countries. The natural history of HCV infection in dialysis child remains incompletely understood controversy continues even in child with intact kidney function. Defining the natural history of HCV remains difficult for several reasons. However, the disease has a very long duration, it is mostly asymptomatic, and determining its onset may be difficult **(Flynn et al., 2018).**

Hepatitis C virus infection is still common among dialysis patients, but the natural history of HCV in this group is not completely understood. Recent evidence has been accumulated showing that anti-HCV positive serologic status is significantly associated with lower survival in dialysis population, an increased risk of liver and cardiovascular disease- related

mortality compared with anti-HCV negative subjects has been found **(Ghany et al., 2018).**

Hepatitis C Virus (HCV) infection remains frequent in patient receiving long-term dialysis both in developed and less-developed countries. The natural history of HCV infection in pediatric patients undergoing hemodialysis remains incompletely understood.

Dialysis is an important treatment for renal failure when the kidneys stop working properly. Dialysis uses special equipment to remove extra water and waste products from the blood. This partly replaces the work of healthy kidneys. Also, the child may need dialysis if the kidney failure occur, this may happen suddenly or over time. There are two main types of dialysis the first type is hemodialysis and peritoneal dialysis. Both of these require surgery before the dialysis can start. In many cases, families can decide the best type of dialysis for the child, in discussion with their healthcare team ***(*Desnoyer et al., 2018).**

Hemodialysis (HD) is the most common method used to treat advanced and permanent renal failure.Hemodialysis defined as a medical procedure that uses a special machine to filter waste products from the blood and to restore normal constituents to it ***(*Chand et al., 2018).**

Nursing responsibilities and role in kidney diseases begins with observation of the child for any manifestations that might