

**Assessment of Nurses' Knowledge and Attitude towards  
Children with Nephrotic Syndrome at Gafer Ibn Auf  
pediatric hospital in Khartoum State July 2015-Nov. 2016**  
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المستخلص :-

الخلفية:

المتلازمة الكلوية تصيب 16 من بين 100.00 طفل سنويا تقريبا دون الـ 16 عاما في الولايات المتحدة ، تصيب الذكور أكثر من الإناث، سنتان ونصف متوسط عمر الأطفال عند بداية المرض.

أهداف الدراسة :

تهدف الدراسة لتقويم معرفة وسلوك الممرضين بالرعاية التمريضية المقدمة للأطفال المصابين بالمتلازمة الكلوية .

منهجية البحث :

أجريت الدراسة الوصفية الإكلينيكية في مستشفى جعفر ابن عوف التخصصي للأطفال .

تم جمع البيانات عن طريق استبيان في الفترة من يوليو 2015 وحتى نوفمبر 2016.

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كل المرضى في العينة (100%) يعطون الأدوية كما وصفت ويقدمون نصائح للمرضى عند خروجهم من المستشفى كما ان 86% منهم يعرفون العلامات والأعراض للمتزامنة الكلوية و87% منهم يعرفون عن الأغذية المناسبة لمريض المتلازمة الكلوية و المرضى  
حملة البكالوريوس أكثر معرفة بالعناية التمريضية المقدمة للطفل المصاب بالمتلازمة الكلوية من المرضى حملة الدبلوم التقني . لذا توصي الدراسة بإقامة كورسات مكثفة للمرضى حملة الدبلوم التقني و إجراء بحوث ودراسات متخصصة لمعالجة ورعاية الأطفال المصابين بالمتلازمة الكلوية .

## **Abstract**

### **Setting**

Nephrotic syndrome annually affects approximately 16 children per 100,000 younger than age 16 in the United States; it is slightly more common in males than females in young children, but this disappears in teenagers and adults. Mean age at onset is 2,5 years.

### **objectives**

To assess the knowledge and attitude of nurses regarding nursing care of children with Nephrotic syndrome.

### **Methods and Material**

A descriptive ,hospital-based study was conducted in Gafer Ibn Auf specialized pediatric hospital in Khartoum .Data were collected using questionnaire for the nurses at July2015 -Nov. 2016

### **Conclusion**

The important findings of the study were:100% of study units giving drugs as prescribed, Most of the nurses give advice to the patients on discharge ,86.9% of study units know most of signs and symptom of Nephrotic syndrome and 87.6% of study units known the ideal diet for Nephrotic patients.

Finally the study recommends that: B.Sc. nurses who treat Nephrotic syndrome must have intensive training courses on Nephrotic syndrome and nurses of Technical diploma ,further researches are highly needed.

**Keywords:** *Nephrotic Syndrome, Pediatric, hypoalbuminemia.*

### **Introduction**

The Nephrotic syndrome is one of the common causes of hospitalization among children, the main symptoms are massive edema, hypoalbuminemia, marked albuminuria and hyperlipidemia (hypercholesterolemia). It can be classified as a congenital, idiopathic or primary and secondary types<sup>(1)</sup>. The mortality rate of steroid responsive Nephrotic syndrome is about 1 - 2%<sup>(2)</sup>.

The peak incidence of both minimal change of Nephrotic syndrome and focal segmental glomerular syndrome is in preschool children. Eighty percent were less than 6 years old, in young children; Males are more commonly affected.<sup>(3)</sup>

Nursing care is one of the most important elements in treatment of Nephrotic syndrome, the nursing care includes an accurate record of fluid intake and output which is always valuable, the child should be weighed daily. The edematous skin must be protected from injury or infection, dietary restriction, except from the exclusion of salty foods, are not necessary. Added salt in cooking and at the table is not allowed and a high-protein diet would be desirable in Nephrotic children. Protein intake may need to be monitored if the child shows signs of renal dysfunction. Other methods of monitoring progress include urine examination, measurement of abdominal girth, vital signs are better to be monitored to detect early signs of complications such as shock or an infective process<sup>(4,5)</sup>.

Pediatric patients with Nephrotic syndrome need to be cared and treated properly because these patients are the future men

and women who build and develop the country. Improvement the nursing care of Nephrotic children to decrease the number of pediatric patients who need dialysis. Prevent the complication of Nephrotic syndrome such as infection, encephalopathy, thromboembolism and its associated complication .

For the abovementioned rationale, this study was carried out to assess the knowledge and practice nurses regarding nursing care of patients with Nephrotic syndrome regarding :Signs and symptoms such infection , thrombosis, renal failure and the Adverse Drug Reactions following prolonged use of the drugs , investigation and dietary management,

#### **Methods and Material**

##### **Study design:**

A descriptive , hospital-based study was conducted in Gafer Ibn Auf specialized pediatric hospital in Khartoum .

##### **Study Areas:**

Pediatric wards in Gafer Ibn Hospital, specialized pediatric hospital in Khartoum state in Sudan .

##### **Study Population:**

All nurse categories , auxiliary nurse with diploma and Bsc working in pediatric departments were included .to measure the following variables : age , sex , qualification , years of experiences in pediatric.

##### **Sample size:**

A total of “70” nurses’ working at the study area were admitted to the study.

##### **Knowledge of the nurses need to be assessed were about:**

Signs and symptoms of Nephrotic syndrome, important investigations that should be done to confirm the disease, dietary management, complications of Nephrotic syndrome. The Adverse Drug Reaction following the prolonged use of corticosteroids, health

education about home the care and the importance of follow up.

**Knowledge of the nurses need to be assessed were about:**

Measuring the input and output, daily urine examination for output ,care of edematous area, daily weight, daily abdominal girth, Measuring blood pressure, temperature, pulse, care of edematous areas, revising the food given to the child daily and giving drugs as prescribed.

**Data Collection tools:**

A standard closed Questionnaire form including all variables in the study was designed, tested the filled for collection of Data.

**Data analysis**

The data was processed and analyzed using the SPSS computer program then presented in a tabular form (see the results).

**Result:**

**Table (1): Categorization of the study Population according to the gender**

	Frequency	Percentage (%)
Male	23	32.9
Female	47	67.1
<b>Total</b>	<b>70</b>	<b>100 %</b>

**Table (2):Nurse’s knowledge regarding the causes of Nephrotic syndrome:**

	Known		Don’t Know	
	Frequency	Percentage	Frequency	Percentage
unknown	65	92.9	5	7.1
after upper respiratory tract	49	70	21	30
after skin infection	35	50	35	50

<b>Total</b>	<b>70.95%</b>	<b>29.05%</b>
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**Table (3): Nurse's knowledge regarding the Signs & symptoms of Nephrotic syndrome:**

	Know		Don't Know	
	Frequency	Percentage	Frequency	Percentage
per orbital edema	67	95.7	3	4.3
generalize edema	67	95.7	3	4.3
heavy Proteinuria	69	98.6	1	1.4
Hypoalbuminaemia	60	85.7	10	14.3
Hyperlipidemia	40	57.1	30	42.9
Ascots	50	81.4	20	28.6
Liguria and change of urine color	66	94.3	4	5.7
<b>Total</b>	<b>86.9%</b>		<b>13.1%</b>	

**Table (4): knowledge about the management of Nephrotic syndrome**

	Known		Don't know	
	Frequency	Percentage	Frequency	Percentage
Prednisolone	54	77.1	16	22.9
Tapering of Corticosteroids	50	71.4	20	28.6
Diuretics	64	91.4	6	8.6
<b>Total</b>	<b>79.95%</b>		<b>20.05%</b>	

**Table (5): Nurse's knowledge regarding the complications of Nephrotic syndrome .**

	Known		Don't know	
	Frequency	Percentage	Frequency	Percentage
Infections as pneumonia, peritonitis and septicemia	60	85.7	10	14.3
Electrolytes disturbance	68	97.1	2	2.9
Renal failure	70	100%	-	-
Vascular thrombosis	46	65.7	24	34.3
Increased keratinize level in the blood	68	97.1	2	2.9
Increased urea level in the blood	69	98.6	1	1.4
Hypertensive Encephalopathy , convulsion	56	80	14	20
<b>Total</b>	<b>89.2%</b>		<b>10.8%</b>	

**Table (6): Nurses attitude regarding the measurement and care of ascitis edema:**

	Know		Don't Known	
	Frequency	Percentage	Frequency	Percentage
Daily weighing	66	94.3	4	5.7
Abdominal girth	59	84.3	11	15.7
Abdominal examination of as cities	66	94.3	4	5.7
<b>Total</b>	<b>90.95%</b>		<b>9.05%</b>	

### **Discussion:**

Nephrotic syndrome annually affects approximately 16 children per 100,000 younger than age 16 in the United States; it is slightly more common in males than females in young children, but this disappears in teenagers and adults. Mean age at onset is 2,5 years

The total number of (70) nurses were included and categorized as follows: technical diploma 26 (37%). And B.Sc. 44 (63%) and This big number of B.Sc. nurses distributed according to policy of their study areas, the study units were selected from Gafer Ibn Auf hospital.

Nursing care is one of the most important elements in treatment of Nephrotic syndrome, the nursing care includes an accurate record

Of fluid intake and output which is always valuable , the child is weighed daily . The edematous skin must be protected from injury or infection , dietary restriction , except from the exclusion of salty foods, are not necessary.

The result showed that Most of study Units were females (76.1%) while males were only ( 23.9%). Meaning that, nursing filed is preferable to females more than males .

About 84,8% of nurses in nursing care of children were aware of Nephrotic syndrome in the Pediatric Hospital.

About 95,8% of nurses their attitude is good regard nursing care of children with Nephrotic syndrome in the Pediatric Hospital.

70.95% of nurses known about the cause of Nephrotic syndrome and 86.9% are knowledgeable about the Signs & symptoms of Nephrotic syndrome.

About 79.95% of nurses knowledgeable about management of Nephrotic syndrome and 96.1% of them are give advises for home care after child discharge from hospital and this Compare with study done by Ahmed A. Mukhlif, and coworkers



2016 in Baghdad City demonstrates that participants 'general information about Nephrotic syndrome at a poor level for most of them (n= 29;48.4%) concerning disease definition, physiology, signs and symptoms, also(n=24;40%) related to disease causes. While (n=29; 48.4%) related to disease complications respectively . And their knowledge is a poor level for the majority of them (n=33;55%), regarding disease managements. While knowledge is at a good level for the majority of them (n=28; 46.7%), relative to disease diagnosis <sup>(10)</sup>. The study revealed a high percentage (90.95%) of nurses attitude regarding the measures and care of ascitis edema which is different from the results of Ahmed A. Mukhlif, and coworkers 2016 in Iraq who stated that it was (n= 39;65%) .(10)

**Conclusion:**

Most of the nurses in the sample (90.3% ) know and show a good attitude in care of patient with Nephrotic syndrome in Gafer Ibn Auf pediatric hospital.

There is significant relationship between the knowledge and the degree of qualifications.

**Recommendations:**

A better set up is required for the training of technical diploma nurses regarding pediatric renal disease and care of Nephrotic children.

Hospitals must provide the necessary equipment for proper nurse's work.

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