

Developing Clinical Protocol for Nursing Practice: Improving Care of Children with Nephrotic Syndrome

Thesis

Submitted for Partial Fulfillment of the Requirements for
Doctorate Degree in Pediatric Nursing

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List of Abbreviations

- **ACEI**Angiotensin converting enzyme inhibitors
- **ADH** Anti-diuretic hormone
- **AT**.... Anti thrombin
- **AZA**.....Azathioprine.
- **BUN** Blood urea nitrogen
- **CNS**Congenital nephrotic syndrome
- **CPO**Cyclophosphamide
- **CSA**Cyclosporine. A
- **DMP**Diffuse mesangial proliferative
- **ESRD** ...End stage renal disease
- **FSGS**....Focal segmental glomerulosclerosis
- **GFR**Glomerular filtration rate
- **IGF**..... Growth factor
- **GI**..... Gastri-intestinal
- **GN** Glomerulonephritis
- **H⁺**..... Hydrogen ions
- **IMN**Idiopathic membranous nephropathy

List of Abbreviations *(Cont...)*

- **INS**Idiopathic nephrotic syndrome
- **ISKDC**..International study of kidney disease in children
- **MCNS**minimal change nephrotic syndrome
- **MesPGN**... Mesangioproliferative glomerulonephritis
- **MGN**.....membranous glomerulonephritis
- **MMF**....Mycophenolate mofetil
- **MN**Membranous nephropathy
- **MPGN**. Membranoproliferative glomerulonephritis
- **NS** Nephrotic syndrome
- **NO**.....Number
- **PTH**Parathyroid hormone
- **RAS**Renin-angiotensin system
- **SDNS**..Steroid dependant nephrotic syndrome
- **SLE** Systemic lupus erythematosus
- **SRNS**...Steroid resistant nephrotic syndrome
- **SSFR**...Steroid sensitive frequent relapse
- **TBG** Thyroid binding globulin

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ABSTRACT

Nephrotic syndrome is a symptom complex characterized by increased glomerular permeability resulting in massive plasma protein loss via urine leading to edema, hypoalbuminaemia and hypercholesterolemia. The use of evidence-based clinical protocols is one means of improving and maintaining the quality of care for children with nephrotic syndrome. The aim of this study develop clinical protocol for nursing practice for improving care of children with nephrotic syndrome through:1- Assess nurses' knowledge and practices regarding to nephrotic syndrome. 2- Design, implement and evaluate the effect of clinical protocol regarding to care of children with nephrotic syndrome. This study conducted at the in-patient and outpatient department in Nephrology Department affiliated to Abo Elresh Pediatric Hospital and Ain Shams Children's Hospitals. The subject of this study included all nurses (50) worked at the previously mentioned settings and given care for children with nephrotic syndrome from both gender and regardless of their qualifications and years of experience. Tools: For data collection two tools were used, 1st tool; an interviewing questionnaires for the nurses who give care for children with nephrotic syndrome It comprised from two parts; characteristics of the studied nurses and nurses' knowledge regarding to nephrotic syndrome. 2nd tool; observational checklist includes actual performance regarding to care of children with nephrotic syndrome. Results: The most of nurses' knowledge had unsatisfactory about nephrotic syndrome; the most of nurses' performance had incompetent regarding to nephrotic syndrome. Conclusion: Nurses' knowledge and performance toward children with nephrotic syndrome improved significantly post and at follow up implementation of nursing protocol. The study recommended that periodically educational training programs for nurses to help them to improve their performance for management of children with nephrotic syndrome in the pediatric nephrology units to alienate and reduce the complications of nephrotic syndrome.

Introduction

Nephrotic syndrome (NS) in children is a common chronic disorder and serious medical condition, characterized by alterations of glomerular capillary wall, resulting in its inability to restrict the loss of protein in urine (*Beevi, 2009*).

The prevalence of nephrotic syndrome in children is being 15 times greater than in adults. Worldwide, the annual incidence of nephrotic syndrome ranged from 2-7 per 100,000 children (*Hockenberry and Wilson, 2013*). There is epidemiological evidence of a higher incidence of nephrotic syndrome in children from south Asia. In Egypt, its prevalence rate was 5–6 % per 100.000 of children populations (*Sabry, 2012/2013*).

The most common type of nephrotic syndrome in children is primary nephrotic syndrome or idiopathic nephrotic syndrome. It accounts for about 90% of children with nephrotic syndrome (*Beevi, 2009*). The secondary nephrotic syndrome can acquire as the result of systemic disease such as; systemic lupus erythematosus (SLE), heavy metal poisoning, and cancer. Congenital nephrotic syndrome is a rare type present in the first week of life, It is inherited by an autosomal recessive gene, which means that males and females are equally affected (*Wong's, 2011*).