

Current Status of the Implication of the  
Clinical Practice Pattern in Hemodialysis  
Prescription in Regular Hemodialysis  
Patients in Egypt (Cairo Sector D6)

**Thesis**

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# List of Contents

Title	Page No.
List of Tables .....	i
List of Figures .....	iv
List of Abbreviations .....	vi
Introduction.....	1
Aim of the Work.....	4
Review of Literature	
▪ Dialysis Overview .....	5
▪ The Hemodialysis Prescription .....	25
▪ Complications during Hemodialysis .....	46
▪ Kidney Disease Improving Global Outcomes Clinical Practice Guidelines.....	60
Subjects and Methods .....	81
Results .....	86
Discussion .....	125
Summary and Conclusion .....	134
Recommendations .....	138
References .....	139
Arabic summary	

# List of Tables

Table No.	Title	Page No.
Table (1):	AAMI standard of water quality for dialysis.....	37
Table (2):	Gender and age distribution in the study population.....	87
Table (3):	Different causes of ESRD in the study population .....	88
Table (4):	Different comorbidities in the study population .....	89
Table (5):	Work status in the study population .....	91
Table (6):	Dependency status in the study population .....	92
Table (7):	Frequency of HD sessions/week in the study population.....	93
Table (8):	Duration of HD session in the study population .....	94
Table (9):	The mean and range of dialysis period .....	95
Table (10):	Sponsoring status in the study population .....	96
Table (11):	Type of vascular access in the study population .....	97
Table (12):	Frequency of access failure in the study population .....	98
Table (13):	The levels of Hemoglobin, MCV, and Iron study during the last 6 months covered by the study .....	99
Table (14):	Hemoglobin category in the study population .....	100
Table (15):	Serum ferritin category in the study population .....	101

## List of Tables (Cont...)

Table No.	Title	Page No.
Table (16):	TSAT category in the study population .....	102
Table (17):	History of blood transfusion in the study population. ....	103
Table (18):	Type of ESA used by the study population .....	104
Table (19):	History of iron injection in the study population .....	105
Table (20):	History of adjuvant therapy in the study population .....	106
Table (21):	The levels of Calcium, phosphorus and PTH during the last 6 months covered by the study .....	107
Table (22):	Serum calcium levels in the study population .....	108
Table (23):	Serum phosphorus level in the study population .....	109
Table (24):	Serum calcium phosphorus product in the study population.....	110
Table (25):	Serum PTH levels in the study population .....	111
Table (26):	Type of phosphorus binders used by the study population.....	112
Table (27):	History of use of vitamin D supplement .....	113
Table (28):	Use of calcimimetic in study population and its dose.....	114
Table (29):	Types of complications during HD session in the study population.....	115
Table (30):	Viral status in the study population (HCV) .....	116

## List of Tables (Cont...)

Table No.	Title	Page No.
<b>Table (31):</b>	Type of dialysate used in the study population .....	117
<b>Table (32):</b>	Concentration of dialysate sodium used in the study population.....	118
<b>Table (33):</b>	Concentration of dialysate potassium used in the study population .....	119
<b>Table (34):</b>	Concentration of dialysate calcium used in the study population.....	120
<b>Table (35):</b>	Concentration of dialysate magnesium used in the study population .....	121
<b>Table (36):</b>	The mean value of kt/v in study population .....	122
<b>Table (37):</b>	Dialyzer model, type and sterilization used in study population. ....	123

## List of Figures

Fig. No.	Title	Page No.
<b>Figure (1):</b>	Mechanisms of solutes removal in hemodialysis.....	30
<b>Figure (2):</b>	Components and loop of water treatment for hemodialysis. ....	35
<b>Figure (3):</b>	Gender distribution in the study population.....	87
<b>Figure (4):</b>	Different causes of ESRD in the study population.....	88
<b>Figure (5):</b>	Different comorbidities in the study population.....	89
<b>Figure (6):</b>	Work status in the study population.....	91
<b>Figure (7):</b>	Dependancy status in the study population.....	92
<b>Figure (8):</b>	Frequency of HD sessions/week in the study population .....	93
<b>Figure (9):</b>	Duration of HD session in the study population.....	94
<b>Figure (10):</b>	Sponsoring status in the study population.....	96
<b>Figure (11):</b>	Type of vascular access in the study population.....	97
<b>Figure (12):</b>	Frequency of access failure in the study population.....	98
<b>Figure (13):</b>	Hemoglobin category in the study population.....	100
<b>Figure (14):</b>	Serum Ferritin levels in the study population.....	101
<b>Figure (15):</b>	TSAT Category in the study population.....	102
<b>Figure (16):</b>	History of blood transfusion in the study Population .....	103
<b>Figure (17):</b>	Type of ESA used by the study population.....	104



## List of Figures (Cont...)

Fig. No.	Title	Page No.
<b>Figure (18):</b>	History of iron injection in the study population.....	105
<b>Figure (19):</b>	History of adjuvant therapy in the study population.....	106
<b>Figure (20):</b>	Serum calcium levels in the study population.....	108
<b>Figure (21):</b>	Serum phosphorus level in the study population.....	109
<b>Figure (22):</b>	Serum calcium phosphorus product in the study population.....	110
<b>Figure (23):</b>	Serum PTH levels in the study population.....	111
<b>Figure (24):</b>	Type of phosphorus binder used by the study population.....	112
<b>Figure (25):</b>	History of use vitamin D supplement.....	113
<b>Figure (26):</b>	Use of calcimimetic in study population and its dose.....	114
<b>Figure (27):</b>	Types of complications during HD session in the study population.....	115
<b>Figure (28):</b>	Viral status in the study population.....	116
<b>Figure (29):</b>	Type of dialysate used in the study population.....	117
<b>Figure (30):</b>	Concentration of dialysate Sodium used in the study population.....	118
<b>Figure (31):</b>	Concentration of dialysate potassium used in the study population.....	119
<b>Figure (32):</b>	Concentration of dialysate calcium used in the study population.....	120
<b>Figure (33):</b>	Concentration of dialysate magnesium used in the study population.....	121
<b>Figure (34):</b>	Dialyzers model.....	123
<b>Figure (35):</b>	Dialyzers type.....	124

# List of Abbreviations

Fig. No.	Abb.
AAMI.....	Association for the Advancement of Medical Instrumentation
AVF .....	Arteriovenous fistula
AVG.....	Arteriovenous graft
CBC .....	Complete blood count
CKD.....	Chronic kidney diseases
CMB .....	Calcium mass balance
D Ca .....	Dialysate calcium concentration
D/I .....	Deionizer
DOPPS .....	Dialysis Outcomes and Practice Patterns Study
eKt/V .....	Equilibrated Kt/V index
ESA .....	Erythropoiesis-stimulating agent
ESRD .....	End-stage renal disease
GFR.....	Glomerular filtration rate
HD .....	Hemodialysis
HDF.....	Hemodiafiltration
HF .....	Hemofiltration
iCA .....	Ionized calcium
IFN .....	Interferon-gamma
K\DOQ I .....	Kidney Foundation Kidney Disease Outcome Quality Initiative
Ko .....	Transfer coefficient
KoA.....	Transfer area coefficient

## List of Abbreviations (Cont...)

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Fig. No.

Abb.

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LMWH .....Low-molecular-weight heparin

MDRD .....Modification of Diet in Renal Disease

MI.....Myocardial infarction

PTH.....parathyroid hormone

Qb.....Blood flow

Qd.....Dialysate flow

R/O .....Reverse osmosis

S .....Sieving coefficient

spKt/V .....Single-pool Kt/V

TMP.....Transmembrane pressure

TNF .....Tumor necrosis factor-alfa

TSAT .....Serum transferrin saturation

URR.....Urea Reduction Ratio

HDUs..... Hemodialysis units

RCTs..... Randomized controlled trials

## INTRODUCTION

Studies examining the link between research evidence and clinical practice have consistently shown gaps between the evidence and current practice. Some studies in the United States suggest that 30%–40% of patients do not receive evidence-based care, while in 20% of patients care may be not needed or potentially harmful. However, relatively little information exists about how to apply evidence in clinical practice, and data on the effect of evidence-based guidelines on knowledge uptake, process of care or patient outcomes is limited.

In recent years, specific clinical guidelines have been developed to optimize the quality of anemia management secondary to chronic kidney diseases (CKD). As a result, the National Kidney Foundation Kidney Disease Outcome Quality Initiative (K\DOQ I) guidelines and the Renal-European Dialysis and Transplantation Association best practice guidelines have been published in USA & Europe. Therefore; clinical practice guidance help individual physician and physicians as group to improve their clinical performance and thus raise standard of patient care towards optimum levels, They may also help to insure that all institution provide an equally good base line standard of care (*Cameron,1999*).

Guidelines practiced on anemia and actual practices are much different with different places and patients

according to treatment. Moreover, in individual countries and individual units within countries local circumstances relating to economic conditions; organization of health care delivery or even legal constraints may render the immediate implementation of best practice guidelines difficult or impossible. Nevertheless, they provide a goal against which progress can be measured (*Locatelli et al., 2004*).

Dialysis Outcomes and Practice Patterns Study (DOPPS) has observed a large variation in anemia management among different countries. The main hemoglobin concentration in hemodialysis patients varied widely across the studied countries ranging between 8g/dl to 11g/dl. The percentage of prevalent hemodialysis patient receiving erythropoietin stimulating agent 'ESA' has increased from 75% to 83%. The percentage of HD patient receiving iron varies greatly among DOPPS countries range from 38% to 89%, (*Locatelli et al., 2004*).

There are challenges in implanting clinical guidelines in medical practice. Overall DOPPS data which show that, despite the availability of practice guidelines for treatment of renal anemia, wider variation in anemia management exists as gap between what is recommended by the guidelines and what is accomplished in every day clinical practice. Compliance with clinical guidelines is importance indicator of quality and efficacy of patient care at the same time their adaptation in

clinical practice may be initiated by numerous factors including; clinical experts, patient performance, constraints of public health policies, community standard, budgetary limitation and methods of feeding back information concerning current practice (*Cameron, 1999*).

## AIM OF THE WORK

1. To study the pattern of current clinical practice in hemodialysis prescription in regular hemodialysis patients in Egypt and to compare this pattern with standard international guidelines in hemodialysis prescription (K/DIGO 2010), stressing on anemia, bone disease management and adequacy of dialysis.
2. Statement of the current status of dialysis patient in Egypt (questionnaire)