

***Current Status of The Implication of The  
Clinical Practice Pattern In Hemodialysis  
Prescription In Regular Hemodialysis  
Patients In Egypt ( Qalyubia )  
Sector A1***

*Thesis*

*Submitted for partial fulfillment of Master Degree  
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**الوضع الحالى لأشكال الممارسه الاكلينيكيه المتبعه  
لوصفات الاستصفاء الدموى لدى مرضى الاستصفاء  
الدموى فى مصر (القليوبية)**

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**رسالة**

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فى أمراض الباطنة العامة  
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ  
الْعَلِيُّمُ الْحَكِيمُ

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# LIST OF ABBREVIATIONS

Abbrev.	Full term
<b>AIDS</b>	Acquired immune deficiency syndrome
<b>APKD</b>	Autosomal dominant polycystic kidney disease
<b>AVF</b>	Arteriovenous fistula
<b>AVG</b>	Arteriovenous graft
<b>BP</b>	Blood pressure
<b>BUN</b>	Blood Urea Nitrogen
<b>CGN</b>	Chronic glomerulonephritis
<b>CPN</b>	Chronic pyelonephritis
<b>CKD</b>	Chronic kidney disease
<b>CKDMBD</b>	Chronic kidney disease-mineral bone disease
<b>CKDOPPS</b>	Chronic kidney outcome and practice pattern study
<b>CLD</b>	Chronic liver disease
<b>CMS</b>	US Centers for Medicare and Medicaid Services
<b>COPD</b>	Chronic obstructive pulmonary disease
<b>CPG</b>	Clinical practice guidelines
<b>CRP</b>	C- reactive protein
<b>CVS</b>	Cerebrovascular stroke
<b>DM</b>	Diabetes mellitus
<b>DOPPS</b>	Dialysis outcome and practice pattern study
<b>ESAs</b>	Erythropoietin stimulating agents
<b>ESAM</b>	European survey of anemia management



## LIST OF ABBREVIATIONS (Cont....)

Abbrev.	Full term
<b>ESRD</b>	End stage renal disease
<b>FMCNA</b>	Fresenius medical care,North America
<b>GFR</b>	Glomerular filtration rate
<b>HBV</b>	Hepatitis B Virus
<b>HCV</b>	Hepatitis C Virus
<b>HEMO</b>	Haemodialysis study
<b>HGB</b>	Haemoglobin
<b>HIV</b>	Human immune deficiency virus
<b>HMWH</b>	High molecular weight heparin
<b>HRQOL</b>	Health related quality of life
<b>HD</b>	Hemodialysis
<b>HTN</b>	Hypertension
<b>IHD</b>	Ischemic heart disease
<b>K/DOQI</b>	Kidney Disease Outcome Quality Initiative
<b>KDIGO</b>	Kidney disease improving global outcomes
<b>LVH</b>	Left ventricular hypertrophy
<b>LMWH</b>	Low molecular weight heparin
<b>MOH</b>	Ministry of health
<b>NCDS</b>	National cooperative dialysis study
<b>NKF</b>	National Kidney Foundation

## LIST OF ABBREVIATIONS (Cont....)

Abbrev.	Full term
<b>PCR</b>	Protein catabolic rate
<b>PDOPPS</b>	Peritoneal Dialysis outcome and practice pattern study
<b>PO4</b>	phosphorous
<b>PRU</b>	Percent reduction in urea
<b>PTFE</b>	Polytetrafluoroethylene
<b>PTH</b>	Parathyroid hormone
<b>PVD</b>	Peripheral vascular disease
<b>SLE</b>	Systemic lupus erythromatosis
<b>SRI</b>	Solute removal index
<b>TIBC</b>	Total iron binding capacity
<b>TSAT</b>	Transferrin saturation
<b>UF</b>	Ultrafiltration
<b>UFH</b>	Unfractionated heparin
<b>URR</b>	Urea reduction ratio
<b>USRDS</b>	United state renal data system

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# 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 patients outcomes is limited (*Locatelli et al., 2004*).

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 patients care towards optimum levels, They may also help to insure that all institution provide an equally good baseline 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

## Introduction

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 patients receiving erythropoietin stimulating agent "ESA" has increased from 75% to 83%. The percentage of HD patients 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 is accomplished in every day clinical practice. Compliance with clinical guidelines is an importance indicator of quality and efficacy of patients care at the same time their adaptation in clinical practice may be initiated by numerous factors including; clinical experts, patients performance, constrains 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), stressing on anemia, bone disease management and adequacy of dialysis.
2. Statement of the current status of dialysis patients in Egypt (questionnaire)