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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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

IFNγ .....Interferon-gamma

K\DOQ I .....Kidney Foundation Kidney Disease Outcome Quality Initiative

Ko .....Transfer coefficient

KoA.....Transfer area coefficient

List of Abbreviations (Cont…)

Fig. No.	Abb.

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
TNFα .....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, 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 2010), stressing on anemia, bone disease management and adequacy of dialysis.
2. Statement of the current status of dialysis patient in Egypt (questionnaire)