Causes, Complications and Pattern of Hemodialysis in Egypt (Alsharqia-A)

Thesis

Submitted for Partial Fulfillment of Master Degree
In Nephrology

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2019

Contents

List of Tables

List of Figures

List of Abbreviations

ADHR : Autosomal dominant hypophosphatemic rickets

BMP : Bone morphogenetic protein

Calcium : Ca

CAPD : Continuous ambulatory peritoneal dialysis

CKD : Chronic Kidney Disease

CRIC : Renal Insufficiency Cohort

CRP : C reactive protein

CVCs : Central venous catheters

DM : Diabetes mellitus

ECFV : Extracellular fluid volume

EPO : Erythropoietin

ESA : Erythrocyte sedimentation rate

ESA : Erythropoiesis-stimulating agents

ESRD : End stage renal disease

ESRD : End-stage renal disease

FGF23 : Fibroblast growth factor 23

GFR : Glomerular filtration rate

HD : Hemodialysis

HGB : Hemoglobin

HIV : Human immunodeficiency virus

HLA : Human leukocytic antigen

HTN : Hypertension

IL : Interleukin

IPD : Intermittent peritoneal dialysis

KDOQI : Kidney Disease Outcomes Quality Initiative

KUf : Ultrafiltration coefficient

MPD : Metabolic bone disease

PAN : Polyacrylonitrile

Phosphorus: P

PMMA : Polymethylmethacrylate

PTH : Parathyroid hormone

RRT : Renal replacement therapy

TNF : Tumor necrosis factor

TNF : Tumor necrosis factor

WHO : World Health Organization

Abstract

Background: There is a gap between evidence base and current practice in hemodialysis pattern which is different from a country to another due to different economic levels and organization of health. These gaps include many things such as causes and co-morbidity modality of hemodialysis medication given.

Methods: This cross sectional study was carried out on 500 end Stage renal disease (ESRD) in Egypt

All patients selected will be subjected to full history, examination, medical record which includes iron study HGB, bone study, erythropoietin .vitamins, HD prescription, causes and complications of HD.

Conclusion: HD pattern in Egypt agrees with the international guidelines and other countries except age(less than USA), bicarbonate as buffer for HD (acetate still used) HGB level is 9.2 gm./dl(target 11-12), using sevelamer as phosphate binder less than usual percent of others, work status for HD pts., is higher than others, routine iron investigations and routine adequacy of HD

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 patient 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 is accomplished in every day clinical practice. Compliance with clinical guidelines is an 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)