

Current Status of the Implication of the Clinical Practice Pattern in Hemodialysis Prescription in Regular Hemodialysis Patients in Egypt (South Sinai)

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Medicine

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List of abbreviations

ABD	<i>Adynamic Bone Disease</i>
ADPKD	<i>Autosomal Dominant Polycystic Kidney Disease</i>
AGE	<i>Advanced Glycation Endproducts</i>
AJKD	<i>American Journal of Kidney Diseases</i>
ANZSN	<i>Australian and New Zealand Society of Nephrology</i>
AV fistula	<i>Arterio Venous Fistula</i>
bAP	<i>Bone Alkaline Phosphatase</i>
BNP	<i>B-type Natriuretic Peptides</i>
BP	<i>Blood Pressure</i>
BUN	<i>Blood Urea Nitrogen</i>
CAPN	<i>Canadian Association of Pediatric Nephrologists</i>
CARI	<i>Caring for Australian with Renal Impairment</i>
CDC	<i>Centers for Disease Control and prevention</i>
CHF	<i>Congestive Heart Failure</i>
CHOIR	<i>Correction of Hemoglobin and Outcomes In Renal Insufficiency</i>
CHr	<i>Reticulocyte Hb content</i>
CKD 5D	<i>Chronic kidney disease stage 5 on dialysis</i>
CKD	<i>Chronic kidney diseases</i>
CKD-MBD	<i>Chronic Kidney Disease-Mineral and Bone Disorder</i>
CMB	<i>Calcium Mass Balance</i>
CPG	<i>Clinical Practice Guidelines</i>
CREATE	<i>Cardiovascular Risk Reduction by Early Anemia Treatment with Epoetin Beta</i>
CSN	<i>Canadian Society of Nephrology</i>
cTns	<i>Cardiac Troponins</i>
CUA	<i>Calcific Uremic Arteriopathy</i>
CVD	<i>Cardiovascular Disease</i>
DOPPS	<i>Dialysis Outcomes and Practice Patterns Study</i>
EBCT	<i>Electron-Beam Computed Tomography</i>
EBPG	<i>European Best Practice Guidelines</i>
eKt/V	<i>The Equilibrated Kt/V</i>
EPO	<i>Erythropoietin</i>
ERA-EDTA	<i>European Renal Association - European Dialysis and Transplant Association</i>
ERBP	<i>European Renal Best Practice</i>
ERT	<i>Evidence Review Team</i>
ESA	<i>Erythropoietin Stimulating Agent</i>

List of abbreviations (cont...)

ESRD	<i>End Stage Renal Disease</i>
FBC	<i>Full Blood Count</i>
FDA	<i>US Food and Drug Administration</i>
FGF	<i>Fibroblast Growth Factor</i>
GFR	<i>Glomerular Filtration Rate</i>
GN	<i>Glomerulonephritis</i>
GRADE	<i>Grades of Recommendation, Assessment, Development, and Evaluation</i>
Hb	<i>Hemoglobin</i>
HBV	<i>Hepatitis-B Virus</i>
HCV	<i>Hepatitis C Virus</i>
HD	<i>Hemodialysis</i>
HDF	<i>Hemodiafiltration</i>
HDP	<i>Hemodialysis Product</i>
HEMO study	<i>The Hemodialysis Study</i>
HIV	<i>Human Immunodeficiency Virus</i>
IL-1	<i>Interleukin-1</i>
iPTH	<i>Intact Parathyroid Hormone</i>
K/DOQI	<i>National Kidney Foundation Kidney Disease Outcome Quality Initiative</i>
KDIGO	<i>Kidney Disease Global Outcomes Improvement initiative</i>
KHA	<i>Board of Kidney Health Australia</i>
KrU	<i>Residual Renal Urea Clearance</i>
LVH	<i>Left Ventricular Hypertrophy</i>
MICS	<i>Malnutrition-inflammation complex syndrome</i>
MOH	<i>Egyptian Ministry of Health</i>
nPCR	<i>Normalized Protein Catabolic Rate</i>
NT-proBNP	<i>N-terminal prohormone of Brain Natriuretic Peptide</i>
PAD	<i>Peripheral Arterial Disease</i>
PCI	<i>Percutaneous Coronary Intervention</i>
PEM	<i>Protein energy malnutrition</i>
PRCA	<i>Pure Red Cell Aplasia</i>
RA	<i>Renal Association</i>
RCTs	<i>Randomised Controlled Trials</i>
RKF	<i>Residual kidney function</i>
ROD	<i>Renal Osteodystrophy</i>
SCD	<i>Sudden Cardiac Death</i>

List of abbreviations (cont.)

SHPT	<i>Secondary Hyperparathyroidism</i>
SLE	<i>Systemic Lupus Erythematosus</i>
spKt/V	<i>Single-pool Kt/V</i>
SRI	<i>The Solute Removal Index</i>
stdKt/V	<i>standard Kt/V</i>
t-PA	<i>Tissue Plasminogen Pctivator</i>
TREAT	<i>Trial to Reduce Cardiovascular Events with Aranesp® Therapy</i>
TSAT	<i>Transferrin Saturation</i>
URR	<i>Urea Reduction Ratio</i>
USRDS	<i>United States Renal Data System</i>
VC	<i>Vascular Calcification</i>
VDR	<i>Vitamin D Receptor</i>
VDRA	<i>Vitamin D Receptor Activators</i>
WGs	<i>Work Groups</i>
β2m	<i>Beta 2-microglobulin</i>

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Abstract

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

Patients and Methods: The study sample consisted of 92 clinically stable ESRD patients on regular HD. Patients were collected from South Sinai Governorate which includes patients from (Sharm El Sheik hospital- South Sinai hospital –El Tour hospital- Ras Sedr hospital- Nwabeah hospital- Taba hospital).

Results: This study is a cross sectional study involved 92 ESRD patients on regular HD collected from *South Sinai Governorate* which includes

Discussion: The present study had the objective of assessing the current status of dialysis patients in Egypt, The HD units participating in this study were in Sharm El Sheikh international hospital ,South Sinai hospital ,Abo Redas hospital, El Tour hospital , Nwaiba hospital , Ras Sedr hospital and Taba hospital

Keywords:

ADPKD: Autosomal Dominant Polycystic Kidney Disease, **bAP:** Bone Alkaline Phosphatase, **BUN:** Blood Urea Nitrogen, **CHF:** Congestive Heart Failure



Introduction



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(*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 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., 2004a*).

Dialysis Outcomes and Practice Patterns Study (DOPPS) have 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., 2004a*).

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

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.



Chapter (1):

Hemodialysis prescription

