

**Current Status of the Implication of the
Clinical Practice Pattern in Hemodialysis
Prescription in regular Hemodialysis
Patients in Cairo Governate**

Thesis

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وَأَنْزَلَ اللَّهُ عَلَيْكَ
الْكِتَابَ وَالْحِكْمَةَ
وَعَلَّمَكَ مَا لَمْ تَكُنْ
تَعْلَمُ وَكَانَ فَضْلُ
اللَّهِ عَلَيْكَ عَظِيمًا

صدق الله العظيم

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List of Abbreviations

ABD	: Adynamic bone disease
ACEIs	: Angiotensin-converting enzyme inhibitors
ADPKD	: Autosomal dominant polycystic kidney disease
AGE	: Advanced glycation endproduct
AHA	: American Heart Association
AJKD	: American Journal of Kidney Diseases
ANZSN	: Australian and New Zealand Society of Nephrology
ARBs	: Angiotensin receptor blockers
AV fistula	: Arterio venous fistula
BAP	: Bone alkaline phosphatase
BNP	: B-type natriuretic peptides
BP	: Blood pressure
BUN	: Blood urea nitrogen
CAPN	: Canadian Association of Pediatric Nephrologists
CARI	: Caring for Australian with Renal Impairment
CDC	: Centers for Disease Control and prevention
CHF	: Congestive heart failure
CHOIR	: Correction of Hemoglobin and Outcomes in Renal Insufficiency
CHr	: Reticulocyte Hb content
CKD 5D	: Chronic kidney disease stage 5 on dialysis
CKD	: Chronic kidney diseases
CKD-MBD	: Chronic Kidney Disease-Mineral and Bone Disorder
CMB	: Calcium mass balance
CPG	: Clinical guidelines
CREATE	: Cardiovascular Risk Reduction by Early Anemia Treatment with Epoetin Beta
CSN	: Canadian Society of Nephrology
cTns	: Cardiac troponins
CUA	: Calcific uremic arteriolopathy
CVD	: Cardiovascular disease
DCa	: Dialysate calcium concentration
DFO	: Desferrioxamine
DOPPS	: Dialysis Outcomes and Practice Patterns Study

List of Abbreviations (Cont...)

EBPG	: European Best Practice Guidelines
eKt/V	: The Equilibrated Kt/V
EPO	: Erythropoietin
ERA–EDTA	: European Renal Association - European Dialysis and Transplant Association
ERBP	: European Renal Best Practice
ERT	: Evidence review team
ESA	: Erythropoietin stimulating agent
ESRD	: End stage renal disease
FBC	: Full blood count
FDA	: US Food and Drug Administration
FGF	: Fibroblast growth factor
GFR	: Glomerular filtration rate
GN	: Glomerulo nephritis
GRADE	: Grades of Recommendation, Assessment, Development, and Evaluation
Hb	: Hemoglobin
HBV	: Hepatitis-B virus
HCV	: Hepatitis C virus
HD	: Hemodialysis
HDF	: Hemodiafiltration
HDP	: Hemodialysis Product
HEMO study	: The Hemodialysis study
HIV	: Human immunodeficiency virus
IL-1	: interleukin-1
iPTH	: Intact parathyroid hormone
K/DOQI	: National Kidney Foundation Kidney Disease Outcome Quality Initiative
KDIGO	: Kidney Disease Global Outcomes Improvement initiative
KHA	: Board of Kidney Health Australia
LVH	: Left ventricle hypertrophy
MOH	: Egyptian Ministry of Health
nPCR	: Normalized Protein Catabolic rate

List of Abbreviations (Cont...)

NT-proBNP	: N-terminal prohormone of brain natriuretic peptide
PAD	: Peripheral arterial disease
PCI	: Percutaneous coronary intervention
PRCA	: Pure red cell aplasia
RA	: Renal Association
RCTs	: Randomised control trials
ROD	: Renal osteodystrophy
SCD	: Sudden Cardiac Death
SHPT	: Secondary hyperparathyroidism
SLE	: Systemic lupus erythematosus
spKt/V	: Single-pool Kt/V
SRI	: The solute removal index
stdKt/V	: standard Kt/V
t-PA	: Tissue plasminogen activator
TREAT	: Trial to Reduce Cardiovascular Events with Aranesp® Therapy
TSAT	: Transferrin saturation
URR	: Urea reduction ratio
USRDS	: United States Renal Data System
VC	: Vascular calcification
VDR	: Vitamin D receptor
VDRA	: Vitamin D receptor activators
WGs	: Work groups
β₂m	: Beta 2-microglobulin

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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 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\DOQI) 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