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### Utilization Evaluation of Drugs Used in Dialysis Patients

Ayda Hossein poor\*, C. Suhas Reddy.

Reddy College of Pharmacy

#### ABSTRACT

You cannot live without having your blood cleaned properly. So, when the kidneys have failed completely, a treatment called dialysis can take over the job of filtering and cleaning the blood. A 67 year's old male diabetic with End Stage Renal Disease (ESRD) admitted to the hospital with the symptoms of decreased balance, loss of sensation, fear of falling, and decreased endurance during daily activities. In April 2011 due to extreme illness and diagnosed with kidney failure. Patient reports progression of his disease to ESRD in 2016. Patient has been receiving dialysis treatment since ESRD diagnosis 3 days per week.

**KEYWORDS:** CKD, ESRD, hemodialysis, Therapy Management.

#### \*Correspondence to Author:

Ayda Hossein poor  
Reddy College of Pharmacy

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## **INTRODUCTION:**

Chronic Kidney Disease (CKD) is recognized as a major health problem and imposes a substantial burden on the patients affected and on health care systems carrying on them. It is associated with a number of abnormalities in electrolytes mineral metabolism viz. hypocalcaemia, hyperphosphatemia and vitamin D metabolism that result in functional calcitriol deficiency and anemia. Dialysis dependent patients with End Stage Renal Disease (ESRD) have a high medication burden. Several surveys of dialysis patients indicate that they are prescribed an average of 11-12 medications per day and take, on average, 17-25 doses per day. Hence the effect of these medications should be studied to reduce the complications and to improve the patient's quality of life.

## **CASE REPORT:**

I report a case of 67 years old male diabetic with End Stage Renal Disease (ESRD) admitted to the hospital with the symptoms of decreased balance, loss of sensation, fear of falling, and decreased endurance during daily activities since 2 years. Co morbidities include Type 2 DM, diabetic neuropathy, hypertension (HTN), and, depression. Patient also reports frequent urinary tract infections (UTIs) since going on dialysis.

## **INTERVENTION:**

Patient was also diagnosed with UTIs and may prone to experience Pneumonia and Sepsis as the second leading cause of patients with CKD especially stage 4 and 5. Hence, the provision of antibiotics help to prevent complications but

## **DISCUSSION:**

Patients undergoing dialysis treatment are at high risk of many complications such as anemia, hyperphosphatemia, hypocalcemia, hypochloremia, hypokalemia, hypernatremia, and hyponatremia, impaired physical function and mobility, which are strong predictors of disability, hospitalization, fall, and death and are often associated with poor outcomes.

Complications commonly encountered in this population of patients are peripheral neuropathy, congestive heart failure, heart attack, stroke, and amputation. Lack of motivation and interest are also common barriers to increasing physical activity with population of patients. Dialysis patients frequently report generalized weakness, fatigue, difficulty with amputation, decreased range of motion, pain, and difficulty with ADLs. In addition, patients on dialysis have reported significant reduction in their quality of life. For the management of all these complications and to prevent infections and to control the disease progress in recent studies, anticoagulant agents, antihypertensive drugs, insulin, antiulcer, calcium salt, multivitamins, erythropoietin, antiplatelet, hypoglycemic and statins, alkylating agents, calcium phosphate binder, iron supplement, etc. are the most preferred drugs. Physical therapy can be appropriate for patients on dialysis treatment because it can be important factor for improving quality of life through physical function and mobility while addressing many of the common complaints and impairments dialysis patients commonly present with. Research has supported physical therapy during dialysis treatment does produce positive outcomes such as; improved endurance, strength, quality of life, functional capacity, and gait speed.

## **CONCLUSION:**

My results shown that medication such as anticoagulant agents, antihypertensive drugs, insulin, antiulcer, calcium salt, multivitamins, erythropoietin, antiplatelet, hypoglycemic and statins, alkylating agents, calcium phosphate binder, iron supplement are the most effective and also suggest exercise programs in individuals with ESRD should involve mild to moderate intensity of exercise over a longer duration of time.

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