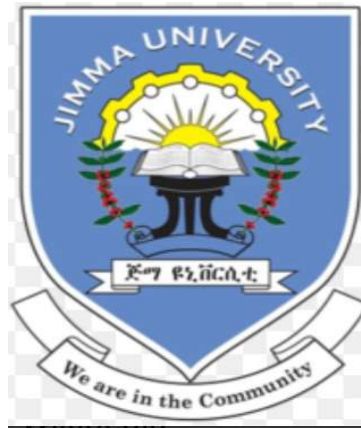


**MAGNITUDE OF COMPLICATIONS AND DISTRIBUTION OF
RISK FACTORS OF CHRONIC KIDNEY DISEASE AMONG
ADULT CHRONIC KIDNEY DISEASE PATIENTS, JIMMA
MEDICAL CENTER: A CROSS-SECTIONAL STUDY**



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JIMMA, ETHIOPIA

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ABSTRACT

Background -Chronic kidney disease (CKD) encompasses a spectrum of pathophysiologic processes associated with abnormal kidney function and a progressive decline in glomerular filtration rate (GFR). Diabetes and hypertension are the leading causes of chronic kidney disease in all developed and many developing countries, but glomerulonephritis and unknown causes are more common in countries of Asia and sub-Saharan Africa. The study is intended to determine the magnitude and patterns of complications of chronic kidney disease (CKD) among adult CKD patients in JMC.

Objective- To determine the magnitude and patterns of complications of CKD among adult CKD patients at Jimma Medical Center (JMC) .

Method-Institution based cross-sectional quantitative study was conducted from September 01, 2019 to November 30, 2019. All patients with established CKD were selected during the study period. The data was collected by record review and face to face interview using checklist and semi-structured questionnaire. Data was checked for completeness and entered into EpiData 3.1 software and exported to SPSS 20 for descriptive and statistical analysis. Descriptive statistics such as percentages, means, medians, standard deviations and ranges were used to describe findings. A bivariate analysis was done to sort variables candidate for multiple logistic regression having value less or equals to 0.25. Multiple logistic regression analyses were conducted to identify factors independently associated with the dependent variable. Finally, association was declared with P-value less than 0.05.

Result – The minimum and the maximum eGFR were 1.5 and 59.7 ml/min/1.73 m² with the mean e GFR of 15.5 ± 14.3 . The most common CKD-related complication was anemia(73.5%) ,followed by hypertension(72%) and AKI(46.2%)

Conclusion and Recommendation - From the total 132 patients, majority (73.5%) were from the rural area. About 35% of them were in young age group (30-49 years). The most common complication was anemia. Clinically significant associations were found among e GFR and anemia, and e GFR and serum potassium.

Although the sample is small and may not represent the general population, from this study, we can conclude that CKD is becoming common in the young –age group.

We recommend all stage-holders to conduct further researches and give trainings to enable Primary health care health professionals to screen risk factors of CKD, and to prevent and treat the complications early.

Budget-The project was conducted by the finance from Jimma University between Sept.01 2019 and Nov.30, 2019 G.C

Key words- CKD complications, estimated glomerular filtration rate (e GFR), Jimma Medical Center

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ACRONYMS AND ABBREVIATIONS

| | | | |
|----------------|---|--------------|--|
| CKD | Chronic Kidney Disease | JMC | Jimma Medical Center |
| RFT | Renal function test | CBC | Complete Blood Count |
| UA | Urine analysis | | |
| UACR | Urinary albumin-creatinine ratio | | |
| US | Ultrasound | ADPKD | Autosomal dominant polycystic kidney disease |
| WHO | World Health Organization | | |
| DM | Diabetic mellitus | MRI | Magnetic Resonance Imaging |
| GFR | Glomerular filtration Rate | | |
| eGFR | estimated glomerular filtration rate | | |
| HIV | Human Immune Deficiency Virus | | |
| BP | Blood Pressure | | |
| UOP | Urine output | | |
| ESRD | End-stage Renal Disease | | |
| HTN | Hypertension | | |
| SCR. | Serum Creatinine Imaging | | |
| KDIGO | Kidney Disease Improvement Global Outcome | | |
| MDRD | Modification of Diet in Renal Disease | | |
| CKD-EPI | Chronic Kidney Disease Epidemiology | | |
| MBD | Mineral Bone Disease | | |
| CT | Computerized Tomography | | |