

# **Evolution of glomerular filtration rate in patients with chronic kidney disease**

## Evolução da taxa de filtração glomerular em pacientes com doença renal crônica

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#### **ABSTRACT**

Chronic kidney disease (CKD) can be both a microvascular complication of diabetes mellitus (DM) and systemic arterial hypertension (SAH). DM, SAH and CKD are independent risk factors for cardiovascular disease. The presence of a high albumin/creatinine ratio and a sustained reduction in glomerular filtration rate (GFR) clinically identify CKD. The Kidney Disease Improving Global Outcomes (KDIGO) guidelines recommend an HbA1c target of around 7.0% to prevent or delay the progression of microvascular complications of diabetes [Alicic R.Z. et al, 2017], as well as keeping systolic blood pressure below 120-mmHg and diastolic blood pressure below 80-mmHg in non-dialysis patients. For treatment of SAH in diabetic patients or patients with moderate/severe proteinuria, KDIGO recommends angiotensin-converting enzyme inhibitor (ACEI) or angiotensin AT1 receptor blocker (ARB) as first-line therapy (Cheung et al. 2021). In addition, medications may be needed to reduce CV risk, DM management, guidelines to avoid the use of nephrotoxins, management of the dosage of the various medications used by the patient, since there is a decrease in renal clearance, dietary management and monitoring of possible complications (Chen et al. 2021). The objective of this research is to analyze a possible change in the GFR of patients with CKD associated with SAH and DM when they start outpatient treatment with a specialist, in addition to evaluating the correlation between the value of microalbuminuria and the GFR of these patients. The method used will be documentary analysis of approximately 150 medical records of patients treated at the nephrology and endocrinology outpatient clinic of the Electro Bonini Hospital. They expect to find a small improvement in the GFR of patients when they start treatment with a specialist, and seek to understand the reasons for this event, aiming at optimizing the treatment of these patients with the general practitioner, postponing the referral.

**Keywords**: Hypertension, Chronic kidney disease, Microalbuminuria, Diabetes mellitus.