

GLOBAL PREVALENCE OF CHRONIC GLOMERULONEPHRITIS AMONG KIDNEY DISEASES

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Abstract: Chronic glomerulonephritis (CGN) is a progressive immune-mediated inflammation of the renal glomeruli, often resulting in a gradual decline in kidney filtration function. It is classified as a type of chronic kidney disease (CKD) and represents a significant public health challenge worldwide. Recent epidemiological studies indicate that CGN-related CKD affects millions of individuals globally. In 2019, approximately 17.3 million people were estimated to live with CKD caused by CGN. Between 1990 and 2019, the incidence of CGN increased by nearly 81%, a trend associated with population growth, longer life expectancy, and aging populations. During the same period, mortality related to CGN nearly doubled, reflecting the growing burden on healthcare systems. CGN can occur at any age but is most frequently diagnosed among middle-aged and older adults. Some cases are also reported in children and adolescents. Gender differences have been observed, with higher prevalence reported in males compared to females, highlighting the importance of demographic factors in disease screening and prevention strategies.

Global Burden of Disease (GBD) data show a steady increase in age-standardized prevalence rates (ASPR) for CGN from 1990 to 2021. Prevalence is disproportionately higher in regions with lower socio-economic development, likely due to limited healthcare infrastructure, restricted access to early detection programs, and reduced availability of preventive interventions. Regional studies indicate elevated CGN-related CKD prevalence in Central Latin America, whereas Western Europe demonstrates comparatively lower rates, reflecting differences in healthcare accessibility, early detection, and organized screening programs.

CGN significantly impacts public health, often progressing to chronic kidney failure and necessitating dialysis or kidney transplantation. The high prevalence and severe complications pose considerable economic and social burdens, particularly in low-income countries.

Conclusion: The global prevalence of chronic glomerulonephritis has risen substantially over the past decades. Demographic, geographic, and socio-economic

factors play a critical role in disease distribution. Effective strategies for early detection, preventive interventions, and advanced treatment protocols are essential to mitigate the global healthcare burden of CGN.

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