

Prevalence, incidence, and risk factors for Hepatitis C virus infection in hemodialysis patients

Hepatitis C virus (HCV) infection is common in dialysis patients and is associated with increased morbidity and mortality. We used the Dialysis Outcomes and Practice Patterns Study (DOPPS, 1996-2015) to assess trends in the prevalence, incidence, and risk factors for HCV infection as defined by a documented diagnosis or antibody positivity. Among prevalent hemodialysis patients, HCV prevalence was nearly 10% in 2012-2015. Prevalence ranged from 4% in Belgium to as high as 20% in the Middle East, with intermediate prevalence in China, Japan, Italy, Spain, and Russia. HCV prevalence decreased over time in most countries participating in more than one phase of DOPPS, and prevalence was around 5% among patients who had recently (<4 months) initiated dialysis. The incidence of HCV infection decreased from 2.9 to 1.2 per 100 patient-years in countries participating in the initial phase of DOPPS. Although most units reported no seroconversions, 10% of units experienced three or more cases over a median of 1.1 years. High HCV prevalence in the hemodialysis unit was a powerful facility-level risk factor for seroconversion, but the use of isolation stations for HCV-positive patients was not associated with significantly lower seroconversion rates. Overall, despite a trend towards lower HCV prevalence among hemodialysis patients, the prevalence of HCV infection remains higher than in the general population. Combined with a high prevalence of HCV infection among patients with Stage 5 CKD, high rates of HCV seroconversion in a subset of hemodialysis units may contribute to this disparity.