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Hepatitis C Virus and Death Risk in Hemodialysis Patients

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HEPATITIS C VIRUS AND DEATH RISK IN HEMODIALYSIS PATIENTS. \*K Kalantar-Zadeh, C J McAllister, R D Kilpatrick, L G Miller, E S Daar, D W Gjertson, J D Kopple, S Greenland (HIV Disease; Los Angeles Biomedical Institute at Harbor-UCLA Medical Center, Torrance, CA 90502)

In maintenance hemodialysis patients, Hepatitis C virus (HCV) infection is common and may be associated with poor clinical outcomes. We hypothesized that HCV infection would be associated with high all-cause and cause-specific mortality in these patients after controlling for demographic and clinical characteristics, including surrogates of malnutrition inflammation cachexia syndrome (MICS). We analyzed a national database of 82,958 maintenance hemodialysis patients, 13,664 of whom underwent third generation HCV enzyme immunoassay (EIA) testing at least once over a 3-year interval (7/2001–6/2004). The HCV EIA was reported positive in 1,590 patients (12%). In logistic regression models that included case-mix and available surrogates of MICS, HCV infection was associated with younger age, male gender, African American race, Hispanic ethnicity, Medicaid insurance, longer dialysis vintage (duration), unmarried status, HIV infection, and smoking history. In proportional-hazards regressions, the mortality-hazard ratio associated with HCV infection was 1.25 (95% confidence interval: 1.12–1.39,  $P < 0.001$ ). Mortality hazards were higher among incident (dialysis duration  $< 6$  mos) than prevalent hemodialysis patients. Subgroup analyses indicated HCV was associated with higher all-cause and cardiovascular mortality across almost all clinical, demographic and laboratory groups of patients. In maintenance hemodialysis patients, HCV infection exhibits distinct demographic, clinical and laboratory patterns, including associations with higher vintage and AST levels, and is associated with higher mortality. More diligent efforts to prevent and treat HCV infection may improve outcomes in maintenance hemodialysis patients.