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Introduction
• US national prevalence of hepatitis C virus (HCV) infection was 3.7% in 2010 (Rosenberg et al., 2017).
• Hemodialysis (HD) patients are at high risk of HCV infection.
• HCV infection prevalence in the US HD population requires updating.

Objectives
• To describe the temporal changes in HCV infection prevalence each year in the 2008-2014 US HD population.
• To examine associations of prevalence of HCV infection with patient demographics and comorbidity.

Methods
• We used the 2007-2014 100% Medicare end-stage renal disease (ESRD) data. For each year (2008-2014), we required patients to have Medicare Parts A/B coverage, not to have Medicare Advantage, to be alive, and to be on HD on the first day of the year.
• Patients with hepatitis B virus (ICD-9-CM diagnosis codes 070.2x, 070.3x) were excluded. Using ICD-9-CM diagnosis codes 070.41, 070.44, 070.51, 070.54, 070.70, and 070.71, we defined HCV infection by ≥1 inpatient or outpatient diagnosis codes (e.g., ICD-9-CM codes 070.41, 070.44, 070.51, 070.54, 070.70, and 070.71). We defined HD by ≥1 ICD-9-CM diagnosis code (e.g., ICD-9-CM codes 92.3x, 92.5x).
• The baseline period, 1 year before each cohort year, was used to define comorbid conditions, including diabetes, liver disease (HCV was not considered a liver disease), human immunodeficiency virus (HIV), alcohol abuse, drug abuse, etc.
• Prevalence of HCV infection was reported as a percentage of HD patients.
• Logistic regression was used to examine association of HCV infection and patient demographics, cohort years, and comorbidity.

Results

Table 1. Baseline characteristics in 2012 US HD patients, by HCV infection status

Table 2. Prevalence of HCV Infection in 2008-2016 HD patients, %

Conclusions
• Average HCV infection prevalence ranged from 5.3%-6.7% with higher prevalence during 2011-2013 (Table 1).
• Adjusted analysis showed significant associations of HCV infection with covariates, e.g., adjusted odds ratio for age 45-64 ref. < 45, 2.28, female 0.72, black (ref. white), 1.67, liver disease, 3.12, HIV, 3.01, alcohol abuse, 1.70, drug abuse, 2.53, and cohort years 2011 ref. 2008, 1.20 (Figure 2).

Limitations
• The prevalence of HCV infection based on diagnosis claims might be underestimated due to lack of laboratory data and under-reporting.
• Hepatitis-related outcomes and treatment were not evaluated in this study.

Reference