4566

The Impact of Migration on Viral Hepatitis Prevalence and Elimination Among 30 European Nations: A modeling approach*

Kenneth Valles, MD/PhD Student[1], Andres Inzunza[2], Kritika Prasai[3], and Lewis R Roberts[4]
[1]Mayo Clinic College of Medicine and Science; [2]Tecnologico de Monterrey, School of Medicine; [3]Mayo Clinic Division of Gastroenterology and Hepatology; [4]Mayo Clinic

OBJECTIVES/GOALS: Hepatitis B and C virus causes inflammation of the liver and can lead to cirrhosis, liver failure, and hepatocellular carcinoma. The aim of this study is to generate a modeled estimate of changes in hepatitis B and C prevalence, and future sequelae, that accounts for recent mass migration to the European Union stemming from 50 high-emigration countries. METHODS/STUDY POPULATION: Total migrant population from 2013-2017 was obtained from the Eurostat population database. Demographics including country-of-origin, sex, and age distributions were used to determine migrant contributions to HBV and HCV prevalence where available. Undocumented migration estimates were obtained from the Institute of Migration database. Country-of-origin HBV and HCV prevalences were obtained for the select 50 country-of-origin nations from the Polaris Observatory and from systematic reviews. Disease progression was estimated using HBV and HCV outcome data for total populations from treatment guideline publication from the European Association for the Study of the Liver. RESULTS/ANTICIPATED RESULTS: Between 2013 and 2017, a total of 11,030,786 documented migrants born outside the EU arrived to the 30 nations. Germany, United Kingdom, and Spain received the greatest influx of persons and the majority of migration stemmed from countries in West Asia, the Middle East, and Africa. A significant proportion of total migration was driven by conflict-related crisis in Syria, and East and North Africa. The most significant increases in estimated total hepatitis case numbers, national prevalence increases, and future sequelae were seen in Germany and Sweden. DISCUSSION/SIGNIFICANCE OF IMPACT: Mass migration has significantly changed HBV and HCV disease burden in Europe over the past 5 years. Consequently, long-term outcomes of cirrhosis and HCC are also expected to increase. These increases are likely to disproportionally impact individuals of the migrant and refugee communities. HBV and HCV surveillance and management programs must strategically focus on individuals from high-burden age cohorts and nations. Screening and treatment would aid WHO elimination efforts while benefiting both the vulnerable individuals and host nations through reduction of morbidity, mortality, and associated healthcare expenses.

4540

THE IMPACT OF SURGEON AND HOSPITAL VOLUME ON 30-DAY OUTCOMES AND COST FOR RENAL CANCER SURGERY

Julia Wainger[1], Joseph Cheaib, Hiten Patel, Mitchell Huang, Michael Biles, Michael Johnson, Joseph Canner, Mohamad Allaf, and Phillip Pierorazio
[1]Johns Hopkins University School of Medicine

OBJECTIVES/GOALS: Provider and hospital factors influence quality, but granular data is lacking to assess their impact on renal cancer surgery. The Maryland Health Service Cost Review Commission (HSCRC) is an independent state agency that promotes cost containment, access to care and accountability. Within HSCRC, we aimed to assess the impact of surgeon and hospital volume on 30-day outcomes after renal cancer surgery. METHODS/STUDY POPULATION: Data on renal surgery were abstracted from the Maryland HSCRC from 2000-2018. We excluded patients younger than 18, patients without a diagnosis of renal cancer, and patients concurrently receiving another major surgery. Volume categories were derived from the distribution of mean cases performed per year. We used adjusted multivariable logistic and linear regression models to identify associations of surgeon and hospital volume with the length of stay, days in intensive care, cost, 30-day mortality, readmission, and complications. RESULTS/ANTICIPATED RESULTS: A total of 10,590 surgeries, completed by 669 surgeons at 48 hospitals, met criteria. The 25th percentile for cases per year was 1, the 50th percentile was 1.2, and the 75th percentile was 2.6. After adjusting for patient factors and cumulative surgeon experience, high volume surgeons had the greatest decrease in length of stay (β: −1.65, P<0.001) and mortality risk (OR: 0.27, 95% CI: 0.10-0.71) compared to rare volume surgeons. Low volume surgeons had the greatest cost decrease (β: -$7,300, P<0.001) compared to rare volume surgeons. Medium volume hospitals had statistically lower average costs than rare volume hospitals (β: $−2,862, P = 0.005). There were no other clinically and statistically significant relationships between volume and measured outcomes. DISCUSSION/SIGNIFICANCE OF IMPACT: Almost half of the urologists studied performed an average of one renal cancer case per year. Greater surgeon volume was associated with shorter length of stay and decreased mortality risk. Hospital volume did not have a meaningful relationship to outcomes. Other factors such as tumor, surgeon, and hospital characteristics or case-mix may associate with outcomes and could be confounders.

4354

The Impact of the 2014 Kidney Allocation System on Waitlisting Rates at the Dialysis Facility Level

Taylor Andrew Melanson, Emory University[1], Jennifer Gander[2], and Rachel Patzer[3]
[1]Emory University; [2]Kaiser Permanente Georgia Regional; [3]Emory University School of Medicine

OBJECTIVES/GOALS: The new Kidney Allocation System (KAS) was implemented in 2014 and it is not fully understood how its changes to patient incentives may have impacted dialysis facility waitlisting rates. We examine differences in facility performance and how such differences may have been impacted by this policy change. METHODS/STUDY POPULATION: We used Dialysis Facility Report data from 2011 to 2017 to study waitlisting rates at 3,392 dialysis facilities in the US, using waitlisting counts in the numerator, and the total number of ESRD patients in a facility as the denominator. We examined changes in waitlisting rates over by year at the facility, regional, and national level, and report national trends in waitlisting pre- and post-KAS. Facilities were stratified based on waitlisting rate in 2011 and then we examined whether each facility moved into a higher or lower quartile or stayed in the same quartile in 2017. RESULTS/ANTICIPATED RESULTS: Among n = 3,392 dialysis facilities, the average change in dialysis facility waitlisting rates from 2011 to 2017 was −4.74 percentage points (range -54.4% to 42.3%). Average change in dialysis facility waitlisting rates

https://doi.org/10.1017/cts.2020.435 Published online by Cambridge University Press