2191. Hepatitis A Outbreak in Southeast Michigan: No Longer a Third World Disease
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Background. Hepatitis A (Hep A) is a self-limiting diarrheal illness occurring in underdeveloped countries. August 2016 marked the onset of an outbreak in Southeast Michigan. Our study characterizes the presentation and clinical course of Hep A patients that presented to our healthcare system.

Methods. This study included all Hep A positive cases that presented to Henry Ford Health System from August 2016 to December 2017. Electronic medical records were reviewed for demographics, sexual history, travel history, food exposure, illicit drug use, signs, symptoms and outcomes. Data were also collected on healthcare unit of presentation, screening, and care including emergency department, clinic, inpatient hospitalization, or transfer from another facility. Outcomes included hospitalization, consultations with hepatology and transplant, re-admission, and death.

Results. A total of 166 cases were reviewed; Figure 1 displays the cases per month. The average age was 51 years and 54% were male. The most common symptoms were abdominal pain (47%) and nausea (42.8%). Underlying conditions included illicit drug use (23%), alcohol abuse (22%), and diabetes (18.6%). Three percent of cases traveled outside of the state within 2 weeks prior to diagnosis. Twenty-three percent had history of illicit drug use and 4.2% were food handlers. Table 1 displays the healthcare unit where Hep A serology was ordered. One hundred Twenty-two (73.5%) cases were hospitalized, 44 (26.5%) required ICU admission and seven (4.2%) were readmitted within 30 days. Ninety-two cases (55%) required hospitalization, 25 were evaluated for transplantation and one (0.6%) received a liver transplant. Eighteen (10.8%) patients died, two of which were never hospitalized.

Conclusion. High clinical suspicion is crucial during an outbreak. Most of our cases were diagnosed with Hep A during inpatient admission after presenting with abdominal pain and nausea. In an outbreak setting, consider testing for immunity from history of previous exposure or vaccination. High hospital admission, morbidity and mortality were seen.

Figure 1. Number of cases per month and year.

Table 1. Healthcare Unit Where Hep A Serology Was Ordered

| Admission | Office visit | Lab encounter | ED | Total |
|-----------|--------------|---------------|----|-------|
| 114 (68.6%) | 31 (18.7) | 13 (7.8) | 9 (4.8) | 166 |

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2192. Hepatitis A in Greece 2009–2017: Time for Setting New Priorities
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Background. The aim of this study was to present the epidemiological data and describe the outbreaks of hepatitis A identified over the period 2009–2017 in Greece.

Methods. Cases recorded through the mandatory notification system were classified in accordance with the European case definition. Data were analyzed by population group (general population, Roma, refugees / migrants, travelers to endemic countries, and MSM).

Results. Between 2009 and 2017, 1,072 cases were reported to the Department of Epidemiological Surveillance and Intervention of the Hellenic Center for Disease Control and Prevention. The median annual number of reported cases was 86 (41–277). Reported cases exceeded the expected number in 2013, 2016 and 2017. In 2013 165 cases were reported (three times higher than the mean annual number for 2005–2012). 49% (42%) among Roma. In 2017, three clusters were identified accounting for 50% of reported cases. Genotyping showed that clusters were due to hepatitis A virus subtype IA. In 2016, after the closure of the northern borders of Greece in March, 177 cases were reported among refugees (subgenotype IB, the majority of affected of Syrian origin). In 2017, an outbreak among men having sex with men (MSM) was recorded as part of a European Hep A outbreak. One hundred and seventy-six male cases were recorded (median age: 38 years old, range; 21–55); 81 identified themselves as MSM. Genotyping data showed linkage to identified European clusters (subgenotype IA).

Conclusion. Hepatitis A remains a significant Public Health threat in Greece. Preventive interventions should target populations with low access to healthcare, as well as MSM.

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2193. Disparities in Hepatitis A Virus (HAV) Vaccination Coverage Among Adult Travelers to High-Risk Countries: The Role of Nativity and Race
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Background. While HAV vaccine is recommended for U.S. travelers, vaccination rates among foreign-born adults are lower than U.S.-born adults. Furthermore, some racial minority groups have low HAV vaccination coverage. We aimed to examine the relationship between nativity, race and their interaction as predictors of HAV vaccination status among adult travelers to high-risk countries (HRCs) through analysis of the National Health Interview Survey (NHIS), 2012–2015.

Methods. The study included 44,871 U.S. adult participants in the 2012–2015 NHIS who traveled to countries where HAV is endemic. The main outcome was self-reported HAV vaccination (≥2 doses). Complex survey methods were applied to all models to provide statistical estimates that are representative of U.S. adults. Multivariable logistic regression models adjusting for covariates were fit to examine the association between nativity, race, race-by-nativity (for interaction) and vaccination status.

Results. For adult travelers to HRCs, the prevalence of HAV vaccination among foreign-born adults was lower than all adults 13.05% (95% CI: 12.11%, 14.00%) vs. 16.12% (95% CI: 15.60%, 16.64%). The adjusted odds ratio (AOR) of HAV vaccination for foreign-born adults compared with U.S.-born adults was 0.86 (95% CI: 0.76, 0.98). For Hispanics, the AOR of HAV vaccination was 0.80 (95% CI: 0.70, 0.91) as compared with non-Hispanic-Whites. Furthermore, a significant qualitative interaction between nativity and race was found (P-value < 0.05). Among non-Hispanic Blacks, the adjusted odds of HAV vaccination for foreign-born adults was 12% (95% CI: 1.06, 1.72) times the odds for U.S.-born adults. In contrast, the AORs of vaccination for foreign-born vs. U.S.-born adults were 36% (95% CI: 17%, 51%) and 30% (95% CI: 12%, 44%), lower for Asians and Hispanics, respectively.

Conclusion. The association between nativity and HAV vaccination status differs by race among travelers to HRCs, with U.S.-born non-Hispanic Black and foreign-born Asian and Hispanic adults having lower vaccination odds. Healthcare resources should be focused on these target populations to improve travel vaccination compliance. Nativity and race should be both assessed when analyzing and reporting HAV vaccination statistics for adult travelers.

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2194. Hepatitis B Care Cascade Within the VA Maryland Healthcare System
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Disclosures. All authors: No reported disclosures.
Background. Approximately 730,000 Americans are estimated to have chronic hepatitis B (HBV) infection, but recent studies have identified gaps in HBV care. Our aim is to characterize the HBV care cascade at the Veterans Affairs Maryland Health Care System (VAMHCS).

Methods. We used administrative VA data sources to identify patients enrolled at VAMHCS with a positive hepatitis B surface antigen (HBsAg) result within the VA from October 1, 1999 through February 7, 2018. Non-Veteran employees, Veterans who had died, or those with confirmed resolution of HBV infection were excluded. Chronic HBV infection was defined as a second positive HBsAg result or detectable HBV DNA ≥6 months later, or if included in the medical record. Resolved HBV infection was defined as undetectable HBsAg in someone with previously positive HBsAg.

Results. We identified 159 patients with a history of detectable HBsAg; only 68 (43%) had confirmatory testing to verify chronic HBV infection. Most patients with confirmed HBV (90%) were male, Black (75%), 18 Caucasian, 5% Asian), with a mean age of 62 years (with standard deviation of ±12 years). Among patients with confirmed chronic HBV, 91% were seen by a provider at least once after diagnosis where HBV was discussed and plan, 91% had blood testing, 41% had fibrosis staging (via transient elastography, liver biopsy, or FibroSure), 85% had at least one screening for hepatocellular carcinoma (HCC), 100% had ALT testing at least once, 84% had ALT > upper limit of normal (men 30 U/L, women 19 U/L), 62% had HBeAg testing.

Conclusion. This analysis reveals that within the Veteran population followed at the VAMHCS, less than half of those with initial detectable HBsAg have had confirmatory testing, and while the majority of patients with confirmed chronic HBV were followed by providers for HBV, less than half of patients received recommended fibrosis staging. More than half (62%) received treatment and the majority (84%) have had liver imaging at least once. The cascade of HBV care highlights multiple areas for targeted improvement of the care of Veterans with chronic HBV.

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2195. Effectiveness of a Dual-Test Strategy and Software Modifications for Mitigating and Preventing Hepatitis B Virus (HBV) Exposures in a Dialysis Unit

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Background. Yearly, the number of U.S. patients needing dialysis increases by 5%. Unlike patients infected with Hepatitis C or HIV who require only standard precautions during dialysis, patients with HBV infection must be segregated. Given the prevalence of HBV, first time dialysis patients could be infected with HBV and inadvertentlyodialysed in a non-segregated setting, especially if dialysis is urgent. Following such an event, we sought to minimize subsequent exposure risk to roommates of the exposed patients if/when they seroconvert before their serology and HBV-DNA results were available. The high volume of patients needing dialysis, and limited resources made segregating all exposes for 6 months logistically impossible. We also optimized a widely used electronic medical software program to prevent future incidents.

Methods. An exposure was defined as any non-immune patient concurrently dialysed in the same room (with the index case: n = 4) or dialysed on the same machine that was cleaned (but not bleached and heat treated) immediately after the index patient (vertical; n = 1). All received HBV vaccine and immunoglobulin, and all of the dialysis machines were sequestered, bleached, and heat treated after each dialysis. All patients were monitored for seroconversion (SCV) with weekly HBsAg and DNA. The dialysis position of the vertical exposure was moved to last of the day. Root causes of a patient’s serologic status escaping verification included: (1) having only a single manual verification step; (2) gaps in a popular medical software (Epic Verona, WI); (3) urgent initiation of the first dialysis session; and (4) automatic importing of lab results. A highly visible “HBV” column on the dialysis census and a ‘hardstop’ in electronic ordering were added.

Results. At 1 year follow-up, there were no questions of false-positives, no HBV DNA detections, SCVs, or further incidents.

Conclusion. We used both DNA and HBsAg for monitoring the exposed, because using only DNA would have risked missing an inter-dialysis SCV due to its single manual verification step; (2) gaps in a popular medical software (Epic Verona, WI), all of the dialysis machines were sequestered, bleached, and heat treated after each dialysis. The index patient (vertical; n = 1). All received HBV vaccine and immunoglobulin, and all of the dialysis machines were sequestered, bleached, and heat treated after each dialysis. All patients were monitored for seroconversion (SCV) with weekly HBsAg and DNA. The dialysis position of the vertical exposure was moved to last of the day. Root causes of a patient’s serologic status escaping verification included: (1) having only a single manual verification step; (2) gaps in a popular medical software (Epic Verona, WI); (3) urgent initiation of the first dialysis session; and (4) automatic importing of lab results. A highly visible “HBV” column on the dialysis census and a ‘hardstop’ in electronic ordering were added.

Results. At 1 year follow-up, there were no questions of false-positives, no HBV DNA detections, SCVs, or further incidents.

Conclusion. No reported disclosures.

Disclosures. All authors: No reported disclosures.

2197. Hepatitis B Reactivation in Patients with Malignancies Undergoing Treatment for Hepatitis C Infection with Direct-acting Antivirals

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Background. Hepatitis B virus (HBV) infection is a major public health problem with ~6% of the world population chronically infected. We investigated the effect of depression, anxiety, stigma, and disclosure on health-related quality of life (HRQoL) among people living with chronic HBV infection (CHB) in Dalian city, Liaoning, China.

Methods. Using a cross-sectional study design, 401 subjects with CHB were studied from January 2017 to September 2017. Study measures included Beck depression and anxiety inventory, WHOQOL-BREF, Toronto Chinese HBV Stigma Scale, and a questionnaire, which collected sociodemographic characteristic and disclosure of positive HIV status to sexual partners. The primary outcome was HRQoL score. A linear regression model examined the association between HRQoL and the potential risk factors including stigma, disclosure, depression, anxiety, and socio-demographic factors. Stigma, disclosure, depression, and anxiety are the covariates of interest. Age, sex, education, medical insurance, cirrhosis, other chronic diseases, and years of diagnosis were adjusted in the model.

Results. Majority of participants were males (251, 62.59%), married (37.41%), and completed high and middle school (67%). Four factors of Depression, anxiety, stigma and disclosure had negative association with QOL, physical, psychological, social and environmental domains (P < 0.05) among CHB patients. Depression was the independent factor significant negative associated with HRQoL (P < 0.0001). Patients’ age had a significantly negative association with HRQoL in the psychological domain (P = 0.0083). Patients/education level had a significantly positive association with HRQoL for all four domains.

Conclusion. Our study is the first time to evaluate psychosocial factors affecting the HRQoL among people living with CHB in Dalian. Depression significantly affects the HRQoL among people living with CHB in Dalian, China warranting the urgent need for screening, early diagnosis and implementation and integration of psychological interventions as part of routine care.

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Background. In China, chronic hepatitis B virus (HBV) infection is a major public health problem with ~6% of the world population chronically infected. We investigated the effect of depression, anxiety, stigma, and disclosure on health-related quality of life (HRQoL) among people living with chronic HBV infection (CHB) in Dalian city, Liaoning, China.

Methods. Using a cross-sectional study design, 401 subjects with CHB were studied from January 2017 to September 2017. Study measures included Beck depression and anxiety inventory, WHOQOL-BREF, Toronto Chinese HBV Stigma Scale, and a questionnaire, which collected sociodemographic characteristic and disclosure of positive HIV status to sexual partners. The primary outcome was HRQoL score. A linear regression model examined the association between HRQoL and the potential risk factors including stigma, disclosure, depression, anxiety, and socio-demographic factors. Stigma, disclosure, depression, and anxiety are the covariates of interest. Age, sex, education, medical insurance, cirrhosis, other chronic diseases, and years of diagnosis were adjusted in the model.

Results. Majority of participants were males (251, 62.59%), married (37.41%), and completed high and middle school (67%). Four factors of Depression, anxiety, stigma and disclosure had negative association with QOL, physical, psychological, social and environmental domains (P < 0.05) among CHB patients. Depression was the independent factor significant negative associated with HRQoL (P < 0.0001). Patients’ age had a significantly negative association with HRQoL in the psychological domain (P = 0.0083). Patients/education level had a significantly positive association with HRQoL for all four domains.

Conclusion. Our study is the first time to evaluate psychosocial factors affecting the HRQoL among people living with CHB in Dalian. Depression significantly affects the HRQoL among people living with CHB in Dalian, China warranting the urgent need for screening, early diagnosis and implementation and integration of psychological interventions as part of routine care.

Disclosures. All authors: No reported disclosures.