

### 2201. Prevalence of Hepatitis C in Adults Presenting to Emergency Departments in a Large Hospital System in Texas

Samuel Prater, MD<sup>1</sup>; Gilhen Rodriguez, MD<sup>2</sup>; Pam Green, RN<sup>3</sup>; Gloria P. Heresi, MD<sup>2</sup>; James R. Murphy, PhD<sup>2</sup> and James McCarthy, MD<sup>1</sup>; <sup>1</sup>Emergency Medicine, UT Medical School Houston, Houston, Texas, <sup>2</sup>Pediatric Infectious Diseases, University of Texas McGovern Medical School, Houston, Texas, <sup>3</sup>UT Medical School Houston, Houston, Texas

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**Background.** Hepatitis C is a chronic life-threatening disease which is curable. However, ~60% of Hep C-infected individuals are unaware of their infection status. The majority of Hep C has been documented in baby boomers (born 1946–1965; PMID:22895429).

**Methods.** Prospective case study of adults presenting to the Emergency Departments (EDs) of a large not for profit hospital system in the Houston, Texas area. Adults presenting between March 2013 and October 2016 were eligible for testing for antibody to Hep C (Gilead).

**Results.** Over the 3.5 years study, 8,159 patients presenting to nine participating EDs in the Houston, Texas region were screened for Hep C. There were 744 (10.0%) individuals found positive. Prevalence of Hep C by testing ED ranged from 4.0 to 13.7% ( $P < 0.001$ ) and males (11.8%) were significantly ( $P < 0.001$ ) more frequently positive than females (6.6%). When parsed by age categories; individuals born before 1946 (3.8% Hep C positive) had a significantly lower ( $P < 0.001$ ) prevalence of Hep C than cohorts born between 1946 and 1965 (9.6%+) or after 1965 (9.2%+).

**Conclusion.** Hep C is prevalent in adult patients presenting to EDs in the Houston, Texas region. The 10% Hep C positivity rate is similar to that found (11.6%) in another Gulf state, Alabama (PMID: 26611776). Our findings differ in that prevalence in individuals born after 1965 was as high as that for baby boomers.

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### 2202. The Hepatitis C Virus Cascade of Care at Stony Brook University Hospital: Risk Factors for Linkage to Care

Audun Lier, MD, MPH<sup>1</sup>; Kalie Smith, BS<sup>2</sup>; Silvia Bronson, MS<sup>3</sup>; Teresa Khoo, MD<sup>4</sup>; Kerim Odekon, MD<sup>1</sup>; Ruth Abeles, MD, MS<sup>5</sup>; Pruthvi Patel, MD<sup>5</sup>; Gerald Kelly, MD<sup>5</sup>; Mathew Tharakan, MD<sup>6</sup>; Manal Soliman, MD, MBA<sup>7</sup>; Bettina C. Fries, MD, FIDSA<sup>5</sup> and Luis A. Marcos, MD, MPH<sup>3</sup>; <sup>1</sup>Internal Medicine, Stony Brook University Hospital, Stony Brook, New York, <sup>2</sup>Infectious Diseases, Stony Brook University Hospital, Stony Brook, New York, <sup>3</sup>Stony Brook University Hospital, Stony Brook, New York, <sup>4</sup>Infectious Disease, Stony Brook University Hospital, Stony Brook, New York, <sup>5</sup>Stony Brook University, Stony Brook, New York, <sup>6</sup>General Medicine Division, Stony Brook University Hospital, Stony Brook, New York, <sup>7</sup>Family Poulation and Preventive Medicine, Stony Brook University Hospital, Stony Brook, New York

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**Background.** Huge efforts are being made to screen high-risk populations for Hepatitis C virus (HCV) infection, however linkage to care (LTC) rates remain low. The aim of this study was to assess the factors affecting LTC among HCV positives in a major tertiary academic medical center in eastern New York.

**Methods.** A retrospective chart review was performed on all patients with ICD-9 or 10 diagnostic codes for HCV positive antibody over a period of 2 years (2016–2017) at Stony Brook Medicine. Data were collected for HCV RNA, LTC, demographics, type of insurance, employment status, psychiatric diagnosis, comorbidities, HIV or HBV coinfections, substance use disorder, and level of fibrosis. Univariate and multivariate analyses were performed to find associated factors with LTC.

**Results.** A total of 600 cases (62.6% male; 74% White; median age: 59 years) had a positive HCV antibody, 264 (44.4%) had a positive follow-up HCV RNA test and 138 (52.2%) were LTC. The average time for LTC was 1.5 months (50 days; interquartile range 21–121). In the univariate analysis, the following factors were significantly associated with LTC: older age (OR 1.022), having medicaid (OR 0.421), people who inject drugs (PWID) (OR 0.216), cocaine and marijuana use (OR 0.457), polysubstance use (OR 0.311), having a primary care provider (OR 2.290) and being a baby boomer (OR 1.718). The vast majority of patients came from three zip codes within south central Suffolk County, coinciding with the highest prevalence of heroin use.

**Conclusion.** In this population insurance type, younger age and substance use (injection drugs, marijuana, cocaine, polysubstance) were associated with lower odds of LTC. Having a primary care provider and being a baby boomer were the only two independent risk factors associated with increased odds of LTC. Due to an increased number of HCV cases in younger populations, particularly PWID, further outreach efforts are urgently needed to spread HCV screening awareness and increase testing in high prevalence areas.

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### 2203. Risk Factors for Hepatitis C in Western Africa: An Observational Study in a STI Clinic

Eda Akyar, MPH<sup>1</sup>; Nallely Mora, MD, MPH<sup>2</sup>; Amy Luke, PhD<sup>2</sup>; Jennifer Layden, MD, PhD<sup>3</sup>; Richard Phillips, MD<sup>4</sup>; Thomas Agyarko-Poku, MD<sup>5</sup>; Dorcas Owusu, MS<sup>6</sup>; Helena A-Siaw, MS<sup>6</sup> and Ronald Nahass, MD, FIDSA, FSHEA<sup>4</sup>; <sup>1</sup>Stritch School of Medicine, Loyola University Chicago, Maywood, Illinois, <sup>2</sup>Department of Public

Health Sciences, Loyola University Chicago, Maywood, Illinois, <sup>3</sup>Illinois Department of Public Health, Chicago, Illinois, <sup>4</sup>Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, <sup>5</sup>Suntreso Government Hospital, Ghana Health Service, Kumasi, Ghana, <sup>6</sup>ID Care, Inc., Hillsborough, New Jersey

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**Background.** The pattern of hepatitis C virus (HCV) transmission routes in sub-Saharan Africa (SSA) has not been previously well characterized. A recent meta-analysis reported a general population HCV prevalence of 5.4% and HIV co-infection prevalence of 3.6% in SSA, with considerable regional variation.

**Methods.** A cross-sectional study was performed in Kumasi, Ghana. Subjects were recruited from patients attending an STI clinic at a government-supported health center. Subjects completed a survey emphasizing known risk factors for HCV, including sexual behaviors, to capture potential routes of exposure. Surveys were administered in Twi, the local language, with the assistance of trained interpreters. Blood samples were collected and tested for HCV antibodies using DiaSpot Anti-HCV Rapid Screen Tests (USA). Data were analyzed using univariate analysis and logistic regression using SAS 9.4.

**Results.** Of the total 312 subjects, 15 were HCV positive (prevalence 4.8%). The HIV-HCV co-infection prevalence was 5.5%. After adjusting for age and sex, statistically significant associated risk factors for HCV infection ( $P < 0.05$ ) include no/low level of education vs. tertiary (OR 5.0), northern region of birth vs. central region (OR 7.3), and traditional body scarring (OR 4.1). Rough sexual practices, ie dry sex, sores, were also explored and were associated with HCV infection ( $P = 0.02$ ). Post-hoc stratified analysis of HIV-infected individuals ( $n = 201$ ) was performed to identify risk factors among those with HCV co-infection. Significant risk factors ( $P < 0.05$ ) in this sub-population include northern region of origin (OR 12.4) and traditional scars or marks (OR 4.6).

**Conclusion.** Two risk factors for HCV infection, ie region of birth and traditional scarring, were significant in both the total clinic population and HIV co-infected individuals suggesting cultural practices are contributing to an increased risk of infection. Among HCV positive individuals, rough sexual practices were significant risk factors; whereas, IV-drug abuse was not. While HCV treatment exists, it is not currently available in West Africa; therefore, it is critical to identify risk factors to best target education programs and screening of populations to limit disease spread.

**Disclosures.** All authors: No reported disclosures.

### 2204. In HCV-Infected Patients, Internalized Stigma, but not Experienced Stigma, Is Correlated with Psychological State and Health-Related Quality of Life: Baseline Data from the PROP UP Study

Michael Gelman, MD, PhD<sup>1,2</sup>; Norbert Bräu, MD, MBA<sup>1,3</sup>; Donna Evon, PhD<sup>4</sup> and The PROP UP Study Group; <sup>1</sup>Infectious Diseases Section, James J Peters Veteran Affairs Medical Center, Bronx, New York, <sup>2</sup>Division of Infectious Diseases, Icahn Mount Sinai School of Medicine, New York, New York, <sup>3</sup>Divisions of Infectious Diseases and Liver Disease, Icahn Mount Sinai School of Medicine, New York, New York, <sup>4</sup>Division of Gastroenterology and Hepatology, University of North Carolina, Chapel Hill, North Carolina

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**Background.** Chronic viral infections often give rise to stigma, whether experienced from others and society or internalized as feelings of shame or embarrassment. Stigma in turn may influence psychological state and health-related quality of life (HRQOL). Stigma in hepatitis C virus (HCV) infection has been studied qualitatively. However, a quantitative analysis of experienced stigma (ExpSt) and internalized stigma (IntSt) in people with chronic HCV infection has not yet been reported.

**Methods.** The SSCI-8 scale, also known as the NeuroQOL-Stigma, is an eight-item patient reported outcome (PRO) instrument validated in the NIH PROMIS collaboration. Of the SSCI-8 items, six are associated with ExpSt and 2 with IntSt. The SSCI-8 was administered to 1,602 participants with HCV infection at the baseline visit of the PROP UP Study, an investigation of PRO before, during, and after HCV therapy. The subscores (ExpSt and IntSt) were each examined for association with demographic factors (DF: age, birth sex, race, educational level, household income, marital status, and employment status). Multivariate linear regression, adjusting for DF, was used to evaluate correlation of ExpSt and IntSt to PRO measures tapping mental health constructs (depression, anxiety, anger, fatigue, and sleep disturbance) and overall HCV-specific HRQOL (the HCV-PRO scale).

**Results.** Of the 1,602 participants receiving the baseline survey, 1,300 answered all eight stigma items; of this subset, less than 10 had missing data for any other individual question studied. IntSt items were endorsed more frequently (55.8% at least 1 of 2) than ExpSt items (38.8% at least 1 of 6;  $P < 0.001$ ). In multivariable analyses, ExpSt was independently correlated with age, marital status, and employment status; and IntSt with all DF except education. After adjusting for DF, IntSt, but not ExpSt, independently predicted depression ( $\beta = 2.2$ ), anxiety ( $\beta = 2.1$ ), anger ( $\beta = 1.9$ ), fatigue ( $\beta = 2.0$ ), sleep disturbance ( $\beta = 1.6$ ), and HRQOL ( $\beta = -6.1$ ; all  $P < 0.001$ ).

**Conclusion.** In persons living with HCV, IntSt (but not ExpSt) is correlated with multiple PRO measures of psychological state and HRQOL.

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**2205. Mandatory Infectious Diseases or Hepatology Consult to Improve HCV Linkage to Care in the Inpatient Setting**

Marinela Ingilizova, MD<sup>1</sup>; Dagan Coppock, MD<sup>1</sup>; Zsafia Szep, MD<sup>1</sup>; Kevin D’Mello, MD<sup>2</sup>; Anna Kesaris, Research Assistant<sup>1</sup>; Tiffany Scott, Research Assistant<sup>1</sup>; Taneesa Franks, Research assistant<sup>1</sup>; Edgar Chou, MD<sup>2</sup> and Dong Heun Lee, MD<sup>1</sup>; <sup>1</sup>Division of Infectious Diseases and HIV Medicine, Drexel University College of Medicine, Philadelphia, Pennsylvania, <sup>2</sup>Department of Medicine, Drexel University College of Medicine, Philadelphia, Pennsylvania

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**Background.** At Hahnemann University Hospital, the prevalence of hepatitis C virus (HCV) infection is close to 17%, which is much higher than the estimated 2% prevalence in the United States general population. However, linkage to care from an inpatient setting is historically lower than for those diagnosed with HCV infection in the outpatient setting. In the era of effective HCV treatment, improving linkage to care is an essential step to cure HCV infection. Here we describe the impact of mandatory HCV consults on the success of linkage to care.

**Methods.** We performed a retrospective observational study of HCV patients who tested positive for HCV from July 2017 to December 2017 and were born between 1945 and 1965 at Hahnemann University Hospital, Philadelphia, PA. Once a patient was identified as having chronic HCV infection, either the Infectious Disease or Hepatology team evaluated the patient and an HCV navigator facilitated linkage to care. We defined linkage as a patient subsequently being seen at the Outpatient Hepatology Clinic or Infectious Disease Clinic within 3 months of discharge from the hospital.

**Results.** Among 524 Baby Boomers tested, 106 (20%) had positive HCV antibody tests. Sixty-nine (65%) had chronic HCV infection and 7(9%) were already linked to care. Among 62 patients, 24 (39%) had an infectious disease (ID) or Hepatology consult. Patients who were seen by a consultant were more likely to be linked to care within 3 months (50% vs. Twenty-two%,  $P = 0.016$ ). One of the main barriers that a consultant did not see a patient was that confirmatory HCV viral load result was not available at the time of discharge. If the viral load was available prior to discharge, a patient was more likely seen by a consultant. (54% vs. 7%,  $P < 0.0001$ )

**Conclusion.** Mandatory HCV consults in the inpatient setting improved linkage to care for HCV-infected patients. One of the main barriers of HCV mandatory consults was HCV viral load result not being available at the time of discharge. In the era of effective direct-acting antiviral treatment, mandatory HCV consults should be implemented to improve the rate of linkage to care. Early routine lab testing for HCV antibody during a hospitalization and timely availability of results will be crucial to the success of such an intervention.

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**2206. In a Non-urban Hepatitis C Cohort, Linkage to an Infectious Diseases Clinic with Embedded Services Is Associated with Better Outcomes Than Linkage to a Gastroenterology HCV Clinic Without These Services for Those with Substance Abuse**

Jacqueline Sherbuk, MD<sup>1</sup>; Kathleen Mcmanus, MD, MSCR<sup>1</sup>; Elizabeth Rogawski, PhD, MSPH<sup>2</sup>; Terry Knick, RN, MPH<sup>1</sup>; Zachary Henry, MD<sup>3</sup> and Rebecca Dillingham, MD, MPH<sup>1</sup>; <sup>1</sup>Division of Infectious Diseases and International Health, University of Virginia, Charlottesville, Virginia, <sup>2</sup>University of Virginia, Charlottesville, Virginia, <sup>3</sup>Division of Gastroenterology and Hepatology, University of Virginia, Charlottesville, Virginia

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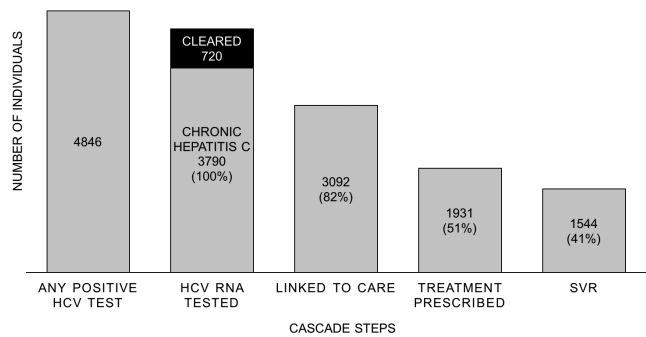
**Background.** Hepatitis C virus (HCV) infection is now curable for most individuals and national goals for elimination have been established. Transmission remains ongoing, particularly in non-urban regions affected by the opioid epidemic. To reach elimination goals, barriers to treatment must be identified with a priority placed on those with substance abuse.

**Methods.** In this retrospective cohort study of all individuals with chronic HCV from 2010 to 2016 at a large medical center serving a predominately non-urban population, we identified patient and clinic characteristics associated with our primary outcome, sustained virologic response (SVR). We performed a subgroup analysis for those with documented substance abuse.

**Results.** SVR was achieved in 1,544 (41%) of 3,790 people with chronic HCV (Figure 1). In a multivariate Poisson regression model adjusted for patient demographics and year of diagnosis, SVR was less likely in those with substance abuse (IRR 0.8, 95% CI 0.7–0.9). In the subgroup analysis of those with substance abuse ( $N = 682$ ), SVR rates were higher in those linked to the infectious diseases clinic, which has embedded support services, than in those linked to gastroenterology, which does not (IRR 1.4, 95% CI 1.1–1.9) (table). Higher SVR rates were driven by an increased rate of medication prescribing in those linked to infectious diseases (IRR 1.3, 95% CI 1.1–1.6) (Figure 2).

**Conclusion.** Those with substance abuse, a high priority population for treatment of HCV, had better outcomes when receiving care in a clinic with embedded support services.

**Figure 1.** Hepatitis C cascade of care.

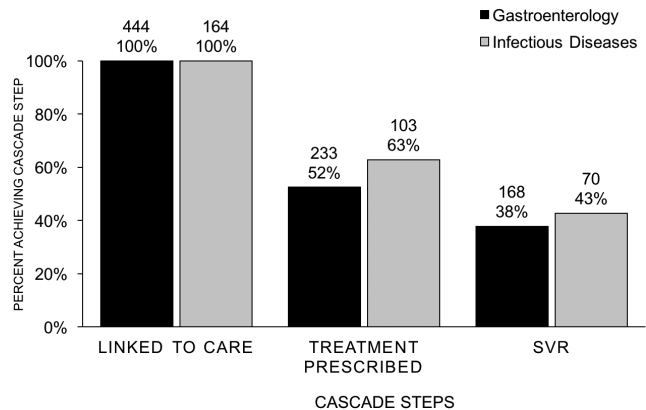


**Table.** Factors Associated with SVR in a Multivariable Poisson Regression Model Among Those with Substance Abuse Linked to Care ( $N = 458$ )

	Incidence Rate Ratio* (95% CI)	P
Hepatitis C clinic		
Gastroenterology	1 (ref)	-
Infectious diseases	1.4 (1.1–1.9)	0.01
Diagnosis characteristics		
Outpatient diagnosis	1.5 (1.1–2.1)	0.01

\* Incidence rate ratios are adjusted for patient demographics (age, sex, race, proximity to medical center, financial status, insurance type), diagnosis year and comorbidities (cirrhosis, hepatocellular carcinoma, HIV, hepatitis B) in addition to variables shown in table above.

**Figure 2.** HCV cascade of care for those with substance abuse linked to care.



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**2207. Barriers to HCV Treatment in a Safety-Net Hospital System**

Sabhi Gull, MD<sup>1</sup>; Lisa Quirk, MS, MPH<sup>2</sup>; Jennifer McBryde, PA-C<sup>2</sup>; Nicole Rich, MD<sup>3</sup>; Amit Singal, MD<sup>4</sup> and Mamta K Jain, MD, MPH<sup>5,6</sup>; <sup>1</sup>UT Southwestern, Dallas, Texas, <sup>2</sup>Clinical Sciences, UT Southwestern Medical Center, Dallas, Texas, <sup>3</sup>Internal Medicine, UT Southwestern Medical Center, Dallas, Texas, <sup>4</sup>Internal Medicine, University of Texas Southwestern, Dallas, Texas, <sup>5</sup>Parkland Health and Hospital System, Dallas, Texas, <sup>6</sup>Internal Medicine, Division of Infectious Diseases, University of Texas Southwestern Medical Center, Dallas, Texas

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**Background.** In 2016, we implemented a hepatitis C (HCV) screening program for baby boomers (BB) born between 1945 and 1965) using a best practice alert (BPA) in the electronic medical record and patient navigation (PN) in our safety-net hospital system. We now examine barriers to HCV treatment among those who received PN for linkage to care (LTC).

**Methods.** The BPA prompts providers to order a HCV antibody (Ab) for any unscreened BB who has an outpatient appointment. Those with HCV Ab+ with a confirmatory RNA receive telephone navigation, using a pre-defined script, if LTC did not occur within 2 months of RNA testing. After LTC, a person was considered as untreated if HCV treatment had not occurred within 1 year of initial visit. Insured