workers aimed at identifying and addressing the socioeconomic barriers among our underserved HCV-infected population. We present the characteristics of HCV patients enrolled in the program as well as assess the sustained viral response rates (SVR) among patients treated for HCV infection between October 2014 and January 2017. May 10, 2017 was the date of last recorded SVR for patients who completed their DAA treatment.

Results. Up to May 10, 2017, the program included 317 patients with HCV infection. The mean age of patients was 59 years (SD = 8). Around 68% of the cohort were males and 89% were African Americans. Of 317 patients, 61% had Medicaid only, 14% had Medicare only and 18% had Medicare and Medicaid. The 2 most common modes of HCV transmission among our cohort was IV drug use (60%) and male to male sex (11%). Most of the patients had genotype 1a (62%) and approximately 37% of them were co-infected with HIV. One-hundred and sixty patients (51%) received or started treatment with DAA; ledipasvir/sofosbuvir being the most commonly prescribed regimen (126/160, 79%). Among 109 HCV infected patients who were expected to finish their DAA treatment 12 weeks before the date of last recorded SVR, 107 (98%) completed treatment. SVR was achieved in 100 % of patients who completed their treatment.

Conclusion. Despite the state Medicaid restrictions, the high DAA costs, and the challenging socioeconomic status of our population, our program was able to achieve impressive SVR rates comparable to other HCV management programs in the US.

Disclosures. All authors: No reported disclosures.

541. Improving Hepatitis C Screening Rates in Primary Care
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Background. Hepatitis C virus (HCV) is the most common chronic blood-borne pathogen in the US. It is the leading cause of complications from chronic liver disease and is the most common indication for liver transplants among US adults. National guidelines recommend one-time birth cohort based screening for adults born from 1945 to 1965 regardless of risk factors for blood-borne infections. A magnitude assessment of infectious disease outpatients demonstrated a birth cohort based screening rate of 38%. Prior quality improvement projects at other institutions have resulted in significant improvements in screening rates, with up to 90% of eligible individuals being screened. We aim to increase HCV screening by 20% amongst Primary Care Internal Medicine (PCIM) patients born from 1945 to 1965 at Mayo Clinic Rochester over a 6 month period.

Methods. The baseline screening rate over a 2-year period (January 1, 2015-December 31, 2016) was extracted from medical records. An anonymous online survey was created and sent to PCIM providers to assess their comfort with screening guideline recommendations and current perceived practices, as well as perform a stakeholder analysis to identify current barriers to screening. A reminder email was sent 3 weeks after the initial invitation.

Results. The baseline screening rate was 6% (769 of 12,269 eligible visits). We attained a 30% (17/57) survey response rate after 4 weeks. Only 6% (1/17) reported screening all patients based on guideline recommendations. We found that 35% of providers are unsure who is eligible for screening. The majority (56%) cited not remembering to discuss screening, and only 18% felt very confident with their understanding of the guidelines. Other reasons for not screening per Figure 1. All providers stated they would screen more patients if there was a screening prompt, and 71% felt that providers needed more education.

Conclusion. Based on the results we implemented an electronic medical record tool to prompt providers to order HCV screening on patients eligible by birth cohort, who had not been previously screened, and did not have known HCV infection. Education was provided via a divisional newsletter. We are currently collecting data to analyze screening rates 6 months after implementation of our intervention.

Figure 1

542. Impact of Insurance and Treatment Regimens on HCV Outcome: Long-term Follow-up Study
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Session: 59. Hepatitis B and C in Varied Settings Thursday, October 5, 2017: 12:30 PM

Background. Directly acting agents (DAA) have revolutionized the treatment of Hepatitis C infection. However the access to appropriate drugs has been a barrier to therapy. Our objective of this study was to find the impact of insurance type and treatment regimen on outcome in patients with hepatitis C.

Methods. We have maintained a database of patients with HCV infection who were seen at our outpatient infectious disease clinic. We conducted a retrospective review of 160 patients who have been following since 2005-2006. In addition to baseline data, we also collected data on treatment status, regimens, outcome, insurance and reasons for no treatment. Statistical analyses included chi-square tests for categorical variables and ANOVA for numerical variables. This study was approved by the institutional review board.

Results. Of the 160 charts reviewed, we had complete records of 40 patients who had a median follow-up period of 12 years. Among them 75% of the patients had HCV genotype 1 (1 or 1b). Liver biopsy was available only for 50% patients which showed 32.5% had early stage (0–2) and 27.5% had late stage (3–4) fibrosis. Most of the patients (17) were treated with older therapies (peg-interferon alpha with or without boceprevir or telaprevir) and 7 with newer DAA combinations, whereas 16 patients did not receive treatment. All patients with private insurance received treatment where as large proportion with public aid did not (100% vs. 57%, P = 0.002).

Total 19 of 28 treated patients achieved a sustained viral response beyond 2 years. All 7 patients who received newer DAAs were cured. Among the 16 patients who did not receive antiviral treatment, 5 (30%) had a poor outcome including liver cirrhosis (1), hepatocellular carcinoma (2 HCC), and death (2) compared with only 2 patients (1 cirrhosis, 1 HCC) in treated group (P < 0.001). None of the patients in treated group died.

Conclusion. In this study, patients who did not have access to appropriate antiviral therapy had worse outcome. The main determinant for poor access to treatment was the type of insurance. It is important to improve access to treatment for all patients with HCV infection which can reduce the rate of progression to advanced liver disease and mortality.

Disclosures. All authors: No reported disclosures.

543. Salvage Therapy in Cancer Patients With Hepatitis C Infection Failing Direct-Acting Antivirals: A Prospective Study
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Background. Direct-acting antivirals (DAAs) are commonly used in Hepatitis C (HCV) infected cancer patients. While treatment failure in these patients is rare, little information exists regarding antiviral salvage therapy. We evaluated the treatment outcomes of this patient population.

Methods. Cancer patients who received initial DAAs (01/2014-06/2016) were analyzed for viral relapse, defined as reappearance of HCV RNA in serum after discontinuation of DAAs. We evaluated safety and efficacy of salvage. RAS (resistance-associated substitutions) to NS5A/B and NS3 were identified using commercially available assays (population sequencing).

Results. Of 160 patients enrolled in a prospective observational study, 15 (15/160; 9%) experienced treatment failure. Of these, 7 received salvage therapy (715; 47%) (Table). The majority of patients were men (86%), cirrhosis (57%), and had solid tumors (71%). Ultimately 3/7 (43%) patients achieved sustained virologic response (SVR). Of the 4 patients who failed first salvage treatment, 3 (75%) had RASs prior to such therapy, 3 (75%) had HCC, and 1 (25%) underwent second salvage. None of the patients experienced grade 3/4 adverse events.

Conclusion. HCV relapse after DAAs is rare in cancer patients, but the efficacy of salvage is suboptimal. More effective rescue therapies are needed.

Disclosures. All authors: No reported disclosures.
544. Retreatment of Chronic HCV Infection after Second Generation DAA Failure in Patients in the NJ VA Healthcare System
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Session: 59. Hepatitis B and C in Varied Settings
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Background. Prevention of Hepatitis C virus (HCV) infection and its associated health complications are a national priority. To achieve optimal health outcomes, people with HCV must receive the diagnosis, link to and retain in care and receive treatment. Despite recent progress in increasing capacity and improving access to care for patients with HCV in the United States, there continues to be a need to improve Hepatitis C care especially in primary care settings. This study sought to assess HCV care in a resident-run primary care clinic of a community hospital.
Methods. Retrospective study of active patients ≥18 years with a diagnosis of Hepatitis C. The electronic medical record (EMR) at 2 outpatient medicine clinics at a community hospital in Rhode Island. Patients were identified by searching the following diagnoses in the EMR: “chronic hepatitis C,” “chronic hepatitis C without coma,” “chronic hepatitis C with coma,” “reactive HCV serology,” “hepatocellular carcinoma.” Patients with HIV coinfection were excluded as these patients are usually referred to a specialty clinic outside the hospital’s network.
Results. Of 12,482 outpatients, 306 had a diagnosis of Hepatitis C. One hundred and fifty-nine (54%) of these patients had HCV RNA detected indicating chronic infection, 51 (17%) patients had reactive HCV antibodies and undetected HCV RNA indicating past infection, and 84 (29%) patients had positive serology to HCV but lacked HCV RNA testing. Obesity was associated with not having HCV RNA checked (OR 2.9, 95% CI 1.66-5.24). No differences observed for other variables although patients with a history of alcohol use and those who had a referral for HCV treatment but were referred elsewhere (21%) were more likely to have HCV RNA tested (P = 0.08). The prevalence of confirmed chronic hepatitis C was 1.6%. Twenty-three (21%) patients with chronic hepatitis C had cirrhosis and 5 had hepatocellular carcinoma however only a minority of them (11%) had received or were receiving direct acting antivirals. Hepatitis B vaccination in HCV infected patients was low (39%).
Conclusion. A significant proportion of patients with reactive serology to HCV in our primary care clinics miss the critical step of having HCV RNA checked. Other medical conditions such as obesity may take priority over HCV care. Implementation of HCV targeted interventions could improve HCV care in primary care.
Disclosures. All authors: No reported disclosures.

546. Direct-acting Antivirals Induce Lymphoproliferative Disease Response in HCV-infected Patients: A Prospective Case Series
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Thursday, October 5, 2017: 12:30 PM
Background. Hepatitis C virus (HCV) infection is associated with the development of B-cell Non-Hodgkin lymphoma (NHL). Several studies report regression of indolent NHL in HCV-infected patients treated with interferon (IFN)-containing therapy without chemotherapy. We are describing, herein, the oncologic response of patients with such cancers treated with only direct antiviral agents (DAAs).
Methods. Patients with HCV-associated NHL seen at MD Anderson Cancer Center (6/2014 to 6/2017) and treated with DAAs were followed and those with indolent NHL treated with DAAs were further analyzed. DAA regimens were administered according to guidelines for HCV-infected patients without cancer. Efficacy was calculated on the basis of achieving sustained virologic response 12 weeks (SVR12) after end of treatment (EOT). NHL status was evaluated at the time of DAAs initiation and response was prospectively analyzed at 6 months after EOT using WHO criteria.