Introduction

In 2016 the World Health Organization proclaimed a hepatitis C virus (HCV) elimination goal of a 90% decrease in new infections by 2030. Some providers are facing this prevalent disease through an organization called ‘Project ECHO’, Extension for Community Healthcare Outcomes, with Oklahoma State University Center for Health Sciences. Funded by OSU-CHS and Cherokee Nation Health Services, this collaborative model connects an interdisciplinary team of infectious disease physicians and pharmacists with community providers to discuss treatment for complex medical conditions. This unique resource proved valuable in providing additional care for an uninsured, chronic HCV patient in the Bedlam Longitudinal Clinic. She became the first patient of the Bedlam free clinics to be evaluated by the ECHO team and receive treatment.

Case Presentation

The patient is a 60-year-old female with Hepatitis C diagnosed in 1981 after a blood transfusion secondary to a C-section. She is uninsured and treatment naive.

July 2019: Patient presented to Bedlam-E 7/2/19 with complaints of calf cramping due to her current hypertension medication and was referred to PAL for long term management. At this time, she admitted to unintentional weight loss of 20lbs within 1 year and denied abdominal pain, skin yellowing, nausea, fever. Physical exam was notable for a palpable liver 2-3cm beyond the costal margin, positive fluid wave, and dullness to percussion across lower abdomen. One month later, she was approved for a RUQ ultrasound through St. John Charity Care, however was required to pay a co-pay.

October 2019: Patient returned to clinic for a follow-up visit. She had not obtained the ultrasound due to cost and remained asymptomatic. At this time, it was determined that she might be a suitable candidate for ECHO. They requested repeat lab work, most notable for the AFP level of 9.1, which had increased from 7.5 four months earlier. Patient paid the copay for the RUQ ultrasound in December which was unremarkable; however, the radiologist recommended CT A/P secondary to her history and elevated AFP.

January 2020: Her case was presented to the ECHO team who collaborated to formulate recommendations for continuing her work-up, beginning treatment, and disease monitoring upon treatment completion. Based on their expert recommendations, the patient received a triple phase liver CT scan through the Medical Access Program (MAP) and a pharmaceutical patient assistance program approved free treatment with Epclusa.

Labs and Imaging

<table>
<thead>
<tr>
<th>Date</th>
<th>Test Results</th>
</tr>
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<tbody>
<tr>
<td>7/30/19</td>
<td>AST 143; ALT 135; AFP 7.5; HCV RNA 3,110,000</td>
</tr>
<tr>
<td>11/19/19</td>
<td>AST 82; ALT 100; AFP 9.1 HCV Genotype 1a; HCV RNA 3,310,000; HCV ab reactive 20.00</td>
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<tr>
<td>12/19/19</td>
<td>RUQ US: unremarkable. Radiologist recommends CT A/P</td>
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<tr>
<td>2/19/20</td>
<td>AST 80; ALT 90; AFP 7.5 Triple phase CT abdomen with and without contract: unremarkable</td>
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Treatment

Patient began taking Epclusa 4/2020 which involves one tablet per day for twelve weeks.

Long-term Management

In addition to the triple phase CT abdomen recommended by the ECHO team, they encouraged the following: obtain APRI and FIB4 values and a SVR test after treatment is completed; lifetime hepatocellular carcinoma monitoring every six months by AFP level and liver ultrasound; administration of Hepatitis A and Hepatitis B vaccines; discontinue recreational marijuana use; screen patient and partners for HIV. Patient was in agreement with recommendations.

Discussion

Formulating a treatment plan for HCV affected individuals proves to be difficult. There are currently eleven Direct Acting Antivirals approved for the treatment of HCV; medication regimens can include one drug or a combination of the drugs and are sculpted to account for genotype, comorbidities, drug-drug interactions, and different patient populations. The financial burden of the regimens has been estimated to reach up to $84,000. The use of expert opinion and guidance that Project ECHO supplies is not only crucial to opening the path to treatment for uninsured individuals, but also to ensure a patient is receiving the best possible regimen available to the them. When this patient presented to clinic, she believed HCV treatment would never be an option for her financially. There was an underlying fear she would become decompensated or develop hepatocellular carcinoma for which her risk is high. Without the pro-bono support from the ECHO team and the free medication through the Patient Assistance Program, her opportunity for treatment would have likely been delayed without expert guidance or denied entirely. For the first time in 39 years, this patient will be able to move forward knowing HCV will be her past and not her future.

Conclusion

Lack of access to health care for Hepatitis C remains prevalent in the uninsured community. Clinician awareness to initiatives like Project ECHO is helping to promote and bridge the way to healing among patients despite socioeconomic status.

References

1. Hepatitis. (n.d.). Retrieved May 1, 2020, from https://www.who.int/health-topics/hepatitis#tab=tab_1