Hepatitis C (HCV) is a significant public health issue. Chronic HCV accounts for 57% of hepatic cirrhosis cases and 78% of hepatocellular carcinoma worldwide, which cumulatively cause 1.4 million deaths annually.

The diagnostic and direct-acting antiviral (DAAs) for HCV have revolutionized the treatability of the disease, with sustained virologic responses (i.e., cure) exceeding 95%.

Our data elucidates that a large patient population with untreated HCV regularly presents to the ED. Quantifying and assessing the disease burden of patients presenting to the ED may reveal the potential for effective interventions. In this study, the primary outcome is to assess the number and demographics of patients presenting to the ED to serve as a site to identify individuals with untreated HCV and link them to care.

The secondary outcome is a characterization of reasons and times for ED visits and subsequent HCV treatment rates among this cohort of individuals.

Methods

We used a retrospective cohort study design to query the electronic medical record to generate a cohort of patients who visited the Denver Health ED between 2019-2021 with recently detectable HCV RNA as documented in the electronic medical record. Our secondary outcome is a characterization of reasons and times for ED visits and subsequent HCV treatment rates among this cohort of individuals.

Our data reflects the high burden of Hepatitis C in the baby boomer generation (those born between 1945-1965), with an upward trend in affected young adults due to IV drug use in the ongoing opioid epidemic.

Our data shows that marginalized communities of color are over-represented, which similarly reflects demographic trends studied in other parts of the country. Additionally, this cohort of individuals is largely underserved, with a majority on Medicaid and almost one-third experiencing homelessness.

This emphasizes that marginalized and underserved communities are lacking indicated health care services—while having been tested previously for HCV, these individuals have not sought out treatment, potentially due to adverse social determinants of health or lack of awareness given an initially asymptomatic disease process.

Our data elucidates that a large patient population with untreated HCV regularly presents to the Emergency Department, highlighting the need for pathways to treatment from the ED.

Potential pathways to treatment may include linkage to care models, automatic EMR flags, and a forwarded message to a PCP, or even prescribing HCV treatment from the ED given recent phasing out of prior authorizations.

Results

27.58% of persons with previously diagnosed but untreated HCV were seen in the Denver Health ED from 2019-2021.

74% of individuals with previously diagnosed but untreated HCV were seen in the Denver Health ED between 2019-2021 on Medicaid.

75.51% of those who were previously diagnosed but untreated HCV were on Medicaid.

4.1% of those who were previously diagnosed but untreated HCV were African American.

4.1% of those who were previously diagnosed but untreated HCV were Hispanic.

4.1% of those who were previously diagnosed but untreated HCV were White DAE.

4.1% of those who were previously diagnosed but untreated HCV were White.

4.1% of those who were previously diagnosed but untreated HCV were Native American, Alaskan Native, Native Hawaiian, or Other.

4.1% of those who were previously diagnosed but untreated HCV were Asian.

4.1% of those who were previously diagnosed but untreated HCV were of another race.

4.1% of those who were previously diagnosed but untreated HCV were Latinx.

4.1% of those who were previously diagnosed but untreated HCV were未知.

1,563 unique individuals with previously diagnosed but untreated HCV were seen in the Denver Health ED from 2019-2021.

Most Common Chief Complaints

Alcohol Intoxication 24%
Abdominal Pain 18%
Drug Problem 11%
Alcohol Use/Abuse 10%

Discussion

Our data reflects the high burden of Hepatitis C in the baby boomer generation (those born between 1945-1965), with an upward trend in affected young adults due to IV drug use in the ongoing opioid epidemic.

Our data shows that marginalized communities of color are over-represented, which similarly reflects demographic trends studied in other parts of the country. Additionally, this cohort of individuals is largely underserved, with a majority on Medicaid and almost one-third experiencing homelessness.

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Our data elucidates that a large patient population with untreated HCV regularly presents to the Emergency Department, highlighting the need for pathways to treatment from the ED.

Potential pathways to treatment may include linkage to care models, automatic EMR flags in the ED, after-visit summary resources, a system-wide HCV treatment coordinator, a forwarded message to a PCP, or even prescribing HCV treatment from the ED given recent phasing out of prior authorizations.