Risk factors for failed linkage to Hepatitis C care

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OBJECTIVES

- To identify the risk factors limiting patients with Hepatitis C (HCV) from attending their first clinic visit

BACKGROUND

- About half of patients with known HCV are actively engaged in care[1-4]
- Risk factors for lack of successful treatment of HCV include alcohol use, drug use history, and unstable housing[5-6]
- Risk factors for not keeping first appointment for HCV evaluation are not firmly established, and may be useful to identify in order to adjust linkage protocols

METHODS

- Study Design: retrospective chart review
- Site: Single site - Center for Infectious Diseases outpatient clinic
- Time period: Jan 1, 2017 – Dec 31, 2017
- Studied Population:
  - Adults with either positive HCV antibody or RNA test or diagnosis of HCV infection on problem list; AND
  - Appointment for HCV evaluation scheduled in 2017; AND
  - No appointment for HCV evaluation attended Jan 1, 2017 through June 31, 2018
- Variables: age, sex, race, insurance (accepted vs. not accepted at the clinic), HCV antibody and RNA results, and risk factors that may impair outpatient HCV linkage.
  - Risk factors included: substance use, alcohol use, mental health history, inadequate transportation, housing insecurity, and history of medication nonadherence.
- Statistics:
  - Descriptive, chi-square, and Fisher exact tests were performed
  - All data analysis was conducted using SAS version 3.71 and Excel

Between 52 and 85% of un-linked HCV positive patients had major barriers to care, including **substance or alcohol use, mental illness, lack of adequate transportation or housing, or known nonadherence**.

Table 1: Participant characteristics

Characteristic	n (%)
Female	72 (45)
Mean Age	48.6 ± 1.1
Black	98 (61)
White	60 (37)
Accepted insurance	122 (76)

Table 2: Site of HCV testing

Risk factors	n (%)
Inpatient	151 (94)
Outpatient	6 (4)
ED	3 (2)
Unknown	1 (1)

Table 3: Risk factors

Risk factors	n (%)
Substance use	137 (85)
Mental health history	115 (71)
Transportation difficulties	106 (66)
Housing insecurity	98 (61)
Medical nonadherence	98 (61)
Alcohol use	84 (52)

RESULTS

- 161 patients did not keep their HCV clinic appointment
- HCV testing
  - HCV antibody testing completed in 98%
  - HCV PCR testing completed in 97%
- Seven patients (4%) died by the end of 2017
  - Patients who were still alive by the end of 2017 were more likely to have an insurance accepted at the ID clinic compared to those without an accepting insurance (98% vs. 90%, p 0.06)

CONCLUSION

- Significant barriers are present among patients with HCV who were not successfully linked to a scheduled HCV appointment.
- Linkage programs should take social determinants of health into account and address them as able to potentially increase likelihood of successful linkage
- Most of un-kept appointments were in those tested in the inpatient setting, where HCV diagnosis likely would have been unrelated to their presenting illness
- Linkage programs should also analyze success rates associated with different points of entry into HCV testing and care

Next Steps

- Patients with HCV should be provided additional support as appropriate to address the social determinants of health that may limit their linkage to HCV care.
- Further investigation into the association between type of health insurance and HCV

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