

A DRIED BLOOD SPOT VERSUS PHLEBOTOMY APPROACH TO HEPATITIS C SCREENING IN OUTREACH SETTINGS: A PRAGMATIC COMPARISON COHORT STUDY

Authors:

Seaman A,^{1,3} Rizzo M,³ Stack E².

¹ Department of Medicine, Section of Addiction Medicine, Oregon Health & Science University, ² Comagine Health, Portland, Oregon, USA; Portland, Oregon, USA; ⁴ Hepatitis C Elimination Program, Central City Concern, Portland, Oregon, USA.

Background:

Hepatitis C (HCV) elimination requires testing and treating populations disengaged from healthcare systems. Several HCV screening platforms exist, though current data are insufficient to guide best practices for screening in non-traditional environments. We designed a pragmatic, prospective cohort study to assess whether screening completion, treatment initiation, and sustained virologic response (SVR12) differ when using a dried blood spot (DBS) or phlebotomy approach in outreach settings, with or without rapid point of care (POC) antibody testing.

Methods:

Between July, 2020 and March 2023, outreach workers offered screening to individuals at risk for HCV in 4 non-traditional environments: supportive-housing, street-outreach, opioid treatment programs, and medically supported withdrawal centers in Portland, Oregon. Participants ≥ 18 years old with last screening >3 months prior were offered DBS versus phlebotomy +/- POC for screening and confirmatory testing. The primary outcome was HCV screening/confirmatory testing completion (defined as a negative antibody or positive antibody with completed PCR testing) using multiple logistic regression and an intention-to-treat framework. Secondary outcomes include assessing movement along the care cascade to SVR12 using ordinal logistic regression modeling.

Results:

Of 2080 individuals approached, 1921 assented to screening, 1439/1550 (93%) by DBS and 482/530 (91%) by phlebotomy. The majority were male (62%) and White (79%). 1253/1550 (79%) in the DBS pathway and 276/530 (52%) in phlebotomy completed testing. As of March 2023, 89/178 (50%) PCR positive in the DBS track and 67/90 (74%) PCR positive in the phlebotomy track initiated treatment. Data lock anticipated September 2023, with pending ordinal logistic regression analysis.

Conclusion:

A DBS approach increased screening and confirmation testing, but uncertainty remains as to whether this increases overall short-term cure rates. These data suggest DBS is a valuable tool for HCV diagnosis with more research needed exploring lowering barriers to treatment initiation and SVR12 completion among individuals screened by DBS.

Disclosure of Interest Statement:

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