

ASSESSMENT OF HEPATITIS C SCREENING STRATEGIES IN DIFFERENT COMMUNITY SETTINGS IN A CANADIAN METROPOLITAN AREA

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Background: It is estimated that over 45% of individuals with chronic hepatitis C virus (HCV) infection in Canada remain undiagnosed. Understanding current rates of HCV diagnosis and linkage to care in different community settings is critical information for developing future screening strategies.

Our aim is to evaluate HCV screening strategies in three different community settings: emergency department (ED), medical walk-in clinic (MC) and community outreach drives (CO).

Methods: We implemented birth cohort (1945-1975) HCV testing in the ED and MC, and universal testing during CO. Community outreach includes shelters, drop-ins, health fairs and addiction clinics. Blood samples in the ED were collected by finger prick on Dried Blood Spot (DBS) collection cards and tested for anti-HCV with reflex to HCV RNA. In the MC and CO, we used anti-HCV point-of-care testing followed by HCV RNA on DBS card. Patients with positive HCV RNA were linked to care.

Results: 6,118 individuals were tested during 1.5 years; 196 (3.2%) were HCV reactive. Seropositivity varied among all three groups: 1.8% (95%CI 1.3%-2.5%) in the ED, 0.4% (95%CI 0.1%-0.9%) in the MC and 5.6% (95%CI 4.8%-6.5%) in the CO. Of Ab positives, 167 (85.2%) underwent HCV RNA testing. 105 (92.1%) out of 114 HCV RNA positives were linked to care. Compared to the general population the HCV prevalence was significantly higher in the CO (5.6% vs. 0.7%; $p < 0.0001$), and in the ED (1.8% vs. 0.7%; $p < 0.0001$). The MC group exhibited similar seropositivity as the general population (0.4% vs. 0.7%; $p = 0.11$).

Conclusion: The HCV prevalence in the CO and ED was significantly higher than the general Canadian population. Using DBS for HCV testing ensured high HCV RNA test uptake. Screening efforts in populations with higher prevalence, such as the ED and outreach programs, resulted in higher yield and good linkage to care.

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