

Conclusion. The HCV care continuum illustrates the stages at which barriers to accessing HCV medical care attenuate successful treatment of patients. The barriers and (mitigating solutions) are as follows: policy-level (e.g., insurance coverage), institutional-level (e.g., HCV RNA reflex testing), provider-level (e.g., EMR prompts), and patient-level (e.g., provision of support services).

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2214. Chronic Hepatitis C: Closing the Gap Towards Eradication—Screening Young Adults vs. Baby Boomers

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Background. Increasing rates of hepatitis C virus (HCV) infection are directly linked to the opioid and intravenous drug (IVD) epidemic. White and rural young adults have been affected disproportionately and most are unaware of their status. However, the CDC recommends HCV screening in persons born between 1945 and 1965 (baby boomers) with screening on others only based on exposures, behaviors, or comorbid conditions. Increased identification of affected individuals is the first step toward eradication of HCV infection

Methods. A prospective, observational study design was employed. We evaluated data collected between May 2016 to December 2017 from adults seen in the primary care, hospital, and emergency department settings at a large urban-based healthcare organization, located in an area with a high prevalence of intravenous (IV) drug use. Descriptive analyses followed by multivariable logistic regression to identify risk factors associations amongst age groups (1. general adult population, ages 18–52 years; 2. baby boomers ages 53–73 years; and 3. elderly age >74 years) were performed.

Results. A total of 59,563 patients were evaluated with a screening antibody. Unadjusted, the general adult population was more likely to have an AB positive screen (7.2% vs. 3.5% and 3.6% respective, P < 0.001), be RNA positive (4.9% vs. 1.7% and 1.5% respective, P < 0.001), and be Hispanic (3.3% vs. 1.1% and 0.8% respective, P < 0.001), while less likely to be a male (16.2% vs. 43.2% and 47.4%, P < 0.001). Adjusted (for pregnancy, gender, race and ethnicity) the general adult population is at increased odds of having an RNA positive test (OR = 4.4, 95% CI 3.7–5.0, P < 0.001) and an AB positive (OR = 2.9, 95% CI 2.2–3.9, P < 0.001), when compared with baby boomers

Conclusion. Efforts should be targeted to increase screening in younger cohorts as HCV is more prevalent in that group age. In areas affected by the opioid epidemic, revision of policies will decrease the gap toward elimination of HCV and universal screening will help to de-stigmatize this infection. Further, cost-efficiency studies will help inform policy makers of the best strategies to reduce transmission and increase linkage to care as next steps toward closing the gap in elimination of HCV infection

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2215. Polymerase Chain Reaction (PCR) for Detection of Vertically Acquired Hepatitis C Virus (HCV) Infection in Early Infancy

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Background. Many children born to HCV-infected mothers in the U.S. never receive recommended anti-HCV antibody (Ab) screening at age \geq 18 months. Earlier testing by HCV-RNA PCR might facilitate increased screening, though prior studies using older PCR assays reported unacceptably low sensitivity of one-time PCR testing in infants. We hypothesized that testing at age 2–6 months using modern blood HCV-RNA PCR platforms with enhanced analytical sensitivity and reliability will adequately detect infected infants.

Methods. Medical records of vertically exposed infants tested for HCV-RNA at age 2–6 months at Nationwide Children's Hospital from January 1, 2008 to December 31, 2017 were reviewed. HCV-RNA tests included qualitative (in-house) and quantitative (ARUP reference lab) Cobas Taqman RT-PCR assays (Roche) with lower limits of detection of 1.2–1.9 log₁₀ IU/mL. Diagnostic performance of early PCR screening was determined using a composite gold standard: (1) infected children had \geq 2 positive PCRs or persistently positive Ab after age 24 months; (2) uninfected children lacked these criteria and required documentation of a negative Ab at a point after age 18 months.

Results. During the study period, 639 vertically exposed infants underwent HCV-RNA testing at age 2–6 months. Of these, 24 (3.8%) tested positive, consistent with prior estimates of the vertical transmission rate. Blood HCV-RNA levels were high at screening (median 6.7 \log_{10} IU/mL, range 5.2–7.8 \log_{10} IU/mL), and confirmatory PCR tests were positive in all who had repeat testing (n = 22). Among 615 infants with negative PCR screening, 444 had reached age \geq 18 months, of whom 144 had undergone Ab testing. Ab tests were negative in 142, while two children had low positive Ab results at 18 months. In both cases, repeat PCR and repeat Ab after age 24 months were negative, suggesting waning maternal Ab rather than true infection. Using the composite gold standard there were 22 true positive, 0 false-positive, 144 true negative, and 0 false negative cases, yielding a sensitivity of 100% (95% CI: 85–100% [Wilson-Brown]).

Conclusion. These findings demonstrate that modern blood HCV-RNA PCR assays have excellent sensitivity for detecting vertically infected infants as early as 2–6 months of age and may improve HCV surveillance given the substantial number of children lost to follow-up prior to 18 months Ab screening.



Figure 1. Follow-up testing among infants screened for HCV-RNA at age 2-6 mo.

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2216. Hepatitis C Treatment Wanted Yet Not Received: Barriers to Receiving HCV Treatment Among People Who Inject Drugs

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Background. To expand hepatitis C (HCV) treatment for people who inject drugs (PWID), programs need to overcome barriers to initiating treatment. We asked HCV-infected PWID about past experiences with HCV care.

Methods. These data are collected from the first 44 participants enrolled in an ongoing study of HCV care for PWID delivered at a syringe services program in New York City. Eligible participants were HCV RNA positive and had injected drugs in the past 90 days. We used a structured interview to ask about prior linkage to HCV treatment and the reasons for not obtaining treatment.