

Hepatitis C Screening of Infants

Hepatitis C virus (HCV) infections are extremely common in the United States and rates of new infections are increasing. In particular, as the incidence of pregnant women with HCV increases, there is a concern that infants with this exposure risk often are missed as such infants are not being followed for infection (although guidelines exist). The authors of this study performed a retrospective cohort study of mothers and their infants using Medicaid data from Tennessee. These mother-infant dyads from 2005 to 2015 included mothers from 15 to 44 years of age who were enrolled in Medicaid 30 days before delivery. Their infants also had to be enrolled in Medicaid within 30 days with continued enrollment until 2 years of age. HCV testing on these children was complete if data demonstrated the presence of HCV antibody, HCV RNA, or HCV genotype testing. Besides determining if these infants were getting appropriate HCV testing, the authors also determined if national guidelines were being followed, specifically HCV antibody testing performed at or after 18 months of age or HCV RNA testing performed at or after 2 months of age.

During the study period, 384,837 mother-infant dyads were enrolled in the Tennessee Medicaid program, and 4072 of these mothers had HCV during pregnancy. Significant risk factors for HCV positivity during pregnancy included being white, tobacco use, co-positivity with hepatitis B virus, and co-positivity with HIV. Infants born to mothers with HCV positivity had a significantly lower birthweight, were more likely to be small for gestational age (SGA), and were more likely to have a history of neonatal ICU (NICU) admission. The prevalence of infants with exposure to HCV increased significantly throughout the study with 5.1 infants exposed to HCV per 1000 live births in 2005 and 22.7 infants exposed to HCV per 1000 live births in 2015 with 92.9% of the mothers

of these children being white. Only 946 infants (23%) exposed to HCV had HCV testing in the first 2 years of life, and 354 of these infants (41%) had testing per recommended national guidelines. Infants exposed to HCV and who underwent testing were significantly more likely to have mothers who used tobacco and to have mothers with HIV co-infection. Infants who had HCV exposure and who had testing that followed recommended national guidelines were significantly more likely to be white, have an urban residence, have a history of maternal tobacco use, have a history of maternal HIV co-infection, have lower birth weight, have a history of SGA, have a history of NICU admission, and have more well child checks. Infants who were exposed to HCV and who were African American or who lived in rural areas next to metropolitan areas were significantly less likely to have HCV testing. In addition, infants exposed to HCV with a higher gestational age and born to mothers with a greater number of prior births had a lower rate of HCV testing.

This study demonstrates that correct testing for HCV infants is not adequate in Tennessee, and these findings may be similar to other regions in the United States. African American children and children who lived in rural regions were less likely to undergo adequate screening, suggesting that public health measures are needed nationally to ensure appropriate and timely testing.

Lopata S, McNeer E, Dudley J, Wester C, Cooper W, Carlucci J, Espinosa C, Dupont W, Patrick S. Hepatitis C testing among perinatally exposed infants. *Pediatrics*. 2020, 145: e20192482; DOI: <https://doi.org/10.1542/peds.2019-2482>

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