TITLE: CHARACTERIZING RISK FACTORS AND INVESTIGATING TESTING AT BIRTH FOR CONGENITAL HEPATITIS C VIRUS INFECTION

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HRRC: 20-402
Category: Original completed research

Background: Hepatitis C virus (HCV) globally leads blood-borne infections with an increase associated with the opioid epidemic. Recommendations call for testing of HCV-exposed infants via antibody screens or RNA testing after 18 and 2 months of age, respectively, but studies show low compliance. We hypothesize that many women with HCV do not receive proper screening during pregnancy resulting in infant-care gaps. We seek to identify factors associated with suboptimal pediatric HCV screening.

Methods: A retrospective chart review was completed using data from Tricore Laboratories. We assessed the yearly proportion of HCV in pregnant women who were tested from 2014-2019 at UNMH, characterized demographic/health information, and identified their infants and HCV testing status. We compared demographics of mothers and infants with HCV testing to those without to assess if any portend a greater probability of follow-up care for infants.

Results: From 2014-2019, 14709 women delivered at UNMH; 63% (n=9310) received HCV testing. Of these, 139 (1.5%) were antibody positive; 107 mother-infant pairs were included in our analysis. Only 29 infants (27%) had antibody testing and 1 infant received viral load testing. One child was antibody and viral load positive. The majority of these infants (n=81) were initially discharged to their birth-parent regardless of testing status. Mean infant gestational age, gravida/parity, liver enzyme levels, time between initial positivity of mother and birth, and maternal viral load did not differ significantly. However, urine positivity for opioid replacement therapy (ORT; methadone or buprenorphine) approached significance (p=0.08) for mothers with tested infants.

Conclusions: The number of pregnant women being tested dramatically increased throughout the study period. However, the percentage of children being tested was notably low. When mothers were on ORT at the time of delivery, their infants were more likely to have been tested presumably due to the mothers' involvement in a program.