Viral Hepatitis Research Highlights from CROI 2019

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By: Corinna Dan, R.N., M.P.H., Viral Hepatitis Policy Advisor, Office of HIV/AIDS and Infectious Disease Policy, U.S. Department of Health and Human Services

Summary:
New researcher findings on hepatitis C were among the scientific developments discussed at the 2019 Conference on Retroviruses and Opportunistic Infections. Over 80 abstracts presented at the 2019 Conference on Retroviruses and Opportunistic Infections (CROI) last month in Seattle addressed aspects of viral hepatitis. This continued a trend of the growing interest in viral hepatitis reflected on the agenda at this annual gathering of basic, translational, and clinical scientists from around the world who share the latest studies in the ongoing battle against HIV, AIDS, and related infectious diseases.

Among the highlights of the hepatitis-related presentations were the following:

- **Significant decline in hepatitis C among HIV-positive gay men in London in DAA era.** Researchers presented findings from a five-year (2013-2018) retrospective cohort study from three London HIV clinics that showed a significant decline in new hepatitis C virus (HCV) infections among gay men living with HIV after direct-acting antivirals (DAAs) became available and cured HCV infection in a relatively short period of time. Regular HCV screening in this population also increased over time in this population and the time to start HCV treatment after diagnosis fell from 40 months at the start of the study (pre-DAAs) to three months at the end. New cases of HCV infection among HIV-positive gay and bisexual men seen at the three clinics declined by nearly 70% since 2015, the researchers reported. The reduction suggests a treatment-as-prevention effect and offers encouragement for the possibility of “micro-elimination” of HCV among defined populations if both treatment and risk reduction activities are scaled up. Read the conference abstract. View a webcast of the conference presentation.

- **Pilot study finds HCV treatment in pregnancy effective, prevents perinatal transmission.** As a result of rising rates of HCV infection among pregnant women in the United States (due to the opioid crisis), perinatal transmission of HCV is a growing concern. At Magee-Womens Hospital in Pittsburgh, in recent years they have seen a doubling in HCV prevalence among pregnant women, with about 2% (~200) of women delivering babies each year who have been diagnosed with HCV infection. Since HCV is perinatally transmitted about 5.8% of the time, the hospital was delivering 10 infants per year with HCV. But there was no published data on the safety or efficacy of HCV treatment with DAAs in pregnancy. So researchers at Magee conducted an open-label, phase 1 study in which nine pregnant women with chronic genotype 1 HCV infection were enrolled between 23-24 weeks of gestation and began a 12-week course of ledipasvir/sofosbuvir. Researchers reported that eight of the pregnant women achieved sustained viral response prior to delivery and one patient was still in follow-up. They also reported that the response to ledipasvir/sofosbuvir was similar to the viral response observed in non-pregnant individuals without any safety concerns identified. And, importantly, all of the women delivered healthy babies who are all HCV-negative to date. This small pilot study suggests that HCV cure during pregnancy may be an effective option to prevent perinatal HCV transmission. However, larger studies are needed to confirm the safety and efficacy of HCV treatment in pregnancy before this strategy can be recommended. The study was supported, in part, by NIH’s National Institute of Child Health and Human Development. Read the study abstract. View the webcast of the study presentation.
Findings from ongoing research such as these are important to inform our national response to viral hepatitis. They can help inform and focus clinical practice, policy, and additional research as well as pave the way for both vaccines and improved therapies. We are grateful for the contributions of our partners in the research community and look forward to continued collaborations as we all work to put the United States on the path toward elimination of the public health threats of hepatitis B and C.