Delaware and Hepatitis C:

Is it time for universal screening?

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While training to become a physician caring for both children and adults, I relied upon evidence-based recommendations to guide nearly every decision I made: when should a pediatric patient be tested for lead exposure? How often should I screen for hypertension in an adolescent? In which patients should I screen for hepatitis C virus infection (HCV)? During this same time, I learned that I had been unknowingly living with HCV for nearly 26 years. My own experience led me to question this last guideline as I realized how many patients might fall through the gaps of current HCV screening recommendations.

I was in my first year of medical residency training when I was diagnosed with HCV. After an accidental needle stick while performing a procedure, I went to employee health services, only to learn days later that I had HCV – and that it did not originate from that needle stick. My life stopped. In a dimly lit hallway near the end of a long night shift, I stood in silence, feeling numb and scared of what lay ahead. In the weeks and months that followed, I met with a hepatologist, made decisions about treatment that would eventually cure me, and reflected on my medical history to learn how I contracted the infection.

In the summer of 1983, I was born a 27-week premature baby. Over several months in the neonatal intensive care unit (NICU), I had received - among other things - occasional blood transfusions. It was likely through those transfusions (which, until the early 1990s, were not routinely screened for HCV and HIV), that I contracted the virus.

HCV is an infectious disease of the liver. Transmitted through direct contact with blood, it is a silent disease, with most patients living asymptomatically for years. Nearly 50% of patients living with HCV are unaware of their status and less than 10% of patients with known HCV have received successful HCV treatment.¹ The consequences are enormous. According to the Centers for Disease Control and Prevention (CDC), HCV now kills more people in the United States than 60 other infectious diseases combined.² Economically, chronic HCV costs the U.S. healthcare system at least \$10 billion annually.³ And until recently, HCV was the leading cause of liver transplantations.⁴

I was ironically lucky to experience that needle stick. Without it, I could have lived for additional years or decades as the virus silently damaged my liver, potentially causing cirrhosis, hepatocellular carcinoma, and even liver failure.

Across exam rooms and hospital beds throughout Delaware and the country, young adults and babies may face a similar situation, but for an entirely different reason. Although blood is now routinely screened for HCV and other communicable diseases, the epidemic of opioid abuse has placed a new generation at risk for the disease. <u>After over a decade's long decline both locally and nationally, the incidence of new cases of acute HCV began to dramatically increase after 2010, largely due to the explosion of intravenous drug use among young adults.⁵</u>

In Delaware alone, nearly 2,600 HCV cases were reported in 2016, which is likely a significant underestimate. CDC research demonstrates nearly 13 unreported cases for every reported case of HCV annually.^{5,6} Delaware has a higher estimated prevalence of HCV than any of its neighboring states, placing it among the top ten nationally.⁷ Over half of these new cases are in Delawareans under the age of 40.⁶

Currently there are no national or state-based recommendations that endorse universal HCV screening for all adults. National guidelines from the CDC and United States Preventative Services Task Force (USPSTF) call for testing all patients born between 1945 and 1965 and others with identified risk factors for exposure. Unfortunately, these guidelines result in a disjointed approach toward HCV screening, leaving providers to make decisions on a case-by-case basis. This ultimately contributes to delays in HCV diagnosis and increased potential for HCV transmission. Furthermore, with HCV increasingly affecting women of childbearing age, newborns are entering the world already infected and at risk for the long-term consequences of the virus, all because their mothers went undiagnosed during pregnancy.

Critics of universal HCV screening argue that it casts too wide a net or that the financial burden of universal screening outweighs the benefits. Recent studies provide evidence to the contrary, showing that universal 1-time screening either for an all adult cohort or as prenatal screening is both cost effective and improves health outcomes for women diagnosed with HCV infection.^{8–10} With new pan-genotypic direct-acting antiviral (DAA) therapy with treatment courses as short as 8 to 12 weeks and cure rates upwards of 95%, including in children, guidelines regarding HCV testing need to change.

Delaware can lead the way by becoming the first state to endorse or mandate universal HCV screening. With recent changes in 2018 to its state Medicaid restrictions on HCV insurance coverage, Delaware has expanded patient access to HCV treatment. Furthermore, recent precedent exists within the state to conduct universal screening in adults – and in doing so, utilize primary care as an option for patients to concurrently seek HCV treatment.¹¹

As I think back to my own journey with HCV and the patients I see every day affected by the opioid and heroin epidemics, I think of those 26 years that passed while I lived with this silent killer. I know I was lucky – lucky to have the needle stick, lucky to have access to curative treatment, and lucky to have the support of many friends, family, and physicians to help me through my experience. Others in this world should be just as lucky. Ask yourself – should another baby or young adult have to wait 26 years or an entire lifetime to know that they too can be cured? It is time for Delaware – and the country - to adopt universal screening for Hepatitis C.

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