Boston Medical Center has shown that testing for the Hepatitis C Virus (HCV) outside the typical high-risk population can be successfully implemented in an emergency department setting, resulting in more patients being screened, diagnosed and treated who might not have been otherwise. The new study, published in *Academic Emergency Medicine*, is the first report of a large scale emergency department program, which increased the monthly rate of HCV screening by more than 6,000 percent by testing regardless of patients' perceived risk for the disease.

In 2012, the Centers for Disease Control and Prevention endorsed guidance for routine one-time HCV screening for individuals born between 1945 and 1965, as well as the continued targeted testing for drug users and others at high risk for HCV infection. However, that guidance has had little impact on those born after 1965, and since 2011, the steady, significant increase in new HCV infections nationally is attributable to the opioid epidemic and associated injection drug use.

"Our findings indicate that if we had only tested the high risk birth cohort, there would have been 268 missed cases and 155 missed active infections," said Elissa Perkins, MD, MPH, the study's lead author and an emergency medicine physician at Boston Medical Center. "Physicians and patients should consider screening for HCV outside of the typical high-risk groups to ensure appropriate HCV diagnosis."

HCV is a condition that is easily transmissible by contact with blood or through sharing needles with an infected person. Over time, it can cause liver inflammation and lead to liver failure. There are effective treatments available, but many patients are unaware that they have the infection.

The researchers collected data from a three month period, between November 2016 and January 2017, and found that HCV tests were performed in BMC's emergency department on 3,808 patients, an average of 1,269 per month. That was a 6,950 percent increase from the 2015 to 2016 monthly average of 18 HCV screenings per month. Patients had to be at least 13 years old, were already undergoing blood testing for clinical purposes, and gave authorization for HCV antibody and reflex confirmatory RNA tests.

Thirteen percent (504 cases) of the initial HCV tests were positive, and of those, 97 percent (493) had a follow up RNA test performed. Active infections were confirmed positive for 292 cases for an overall HCV positivity rate of almost 8 percent. Of those with an active infection, 155 cases, or 4 percent of all individuals tested, fell outside of the Center for Disease Control and Prevention's birth cohort for increased risk for HCV.

Perkins and her team used a Best Practice Advisory to alert providers in the emergency department about the program and generate order labels. Information technology allowed them to build documentation of verbal informed consent into patients' electronic medical records and make the HCV screening streamlined and efficient for the emergency department staff.

The study also attempted to link patients with active infections to follow up care; appointments were scheduled for 102 patients (approximately 35 percent), and ultimately, 66 patients made a care visit (22 percent of all active infection patients).

"Those 66 patients that were connected to care through our program demonstrate the importance of increasing screening rates for HCV infection," said Perkins.
