



CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
PP160089

Project Title:
PREVENT HCC - through Screening, Vaccination and Treatment of Viral Hepatitis

Award Mechanism:
Evidence-Based Prevention Programs and Services

Principal Investigator:
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Entity:
Baylor College of Medicine

Lay Summary:

Need Texas has the highest incidence rates for hepatocellular carcinoma (HCC) in the U.S. HCC is highly fatal with limited options for cure and therefore prevention is paramount. Our targeted area of Harris County, Texas has an HCC incidence rate of 11.8/ 100,000, which is 1.5-times higher than the U.S overall. Being the most populous county (4.3 million residents), Harris County has the highest frequency of HCC in the state (>500 cases/year). HCC incidence in Harris County is disproportionately higher in Hispanics, Asians and Blacks than whites. Most HCC cases are caused by chronic hepatitis B virus (HBV) and hepatitis C virus (HCV) infections and therefore are preventable. Harris County has high prevalence of HBV (119/ 100,000) and HCV infection (353/ 100,000). Highly efficacious treatments are available that induce remission (for HBV) and cure (for HCV) with dramatic reduction in subsequent risk of HCC. HBV vaccination has >90% efficacy in preventing HBV infection and is inexpensive and widely available.

Our program PREVENT HCC through Screening, Vaccination and Treatment of HBV and HCV (Prevent HCC thru SVT) is focused on The Harris Health System (HHS), an integrated health system of community health centers and hospitals for most of the 1.12 uninsured and underinsured residents in the county. Approximately 400,000 unique patient encounters were recorded at HSS during 2014 of which 55% in outpatient clinics. Major barriers exist for HBV and HCV care; low proportions (in 2014) of screening in HHS for HCV among baby boomers (9%) and HBV (14% Asian patients), HBV vaccination (13% of HBV screen negative) and treatment rates esp. HCV (7%).

Overall Project Strategy The goal of our proposal is to reduce the burden and disparities in HCC caused by HBV or HCV in Harris County by increasing evidence- based primary and secondary preventive services for HCC in the uninsured and underinsured minority populations. We will target several steps including education to Harris County residents and HHS patients and providers, point of care screening for chronic HBV and HCV, followed by automated reflex diagnostic testing, navigator assisted education regarding risk factors to mitigate viral transmission and timely linkage to specialized care for antiviral treatments.

The GOALS are To provide education for high-risk residents of Harris County (both

community residents and Harris Health System [HHS] patients) about risk of hepatocellular carcinoma (HCC), and opportunities for HCC prevention through screening and diagnosis of chronic viral hepatitis (HBV & HCV), prevention and treatment of these infections. Estimated numbers of people reached (100,000) and served (124,680)

To provide education to healthcare professionals at HHS as well as community clinic partners about hepatitis (HBV and HCV) and HCC prevention and management. Estimated numbers of providers reached (300) and served (130)

To implement point of care USPSTF-recommended hepatitis (HBV and HCV) screening and prevention services (HBV vaccination, education) among high-risk patients at HHS. The objectives are to increase by 50% the proportions of HHS patients who complete HBV and or HCV screening among those with any high risk condition as specified by USPSTF recommendations; screen positive patients who get reflex confirmatory, screen positive patients who get educational material about prevention of spread of these viruses; and screen negative patients who receive HBV vaccination. Estimated numbers of HHS patients reached (140,000) and served (120,000)

Improve follow-up including linkage to specialty care for viral treatment consideration among patients with abnormal HBV and HCV screening tests in HHS. Estimated numbers of HHS patients reached and served (1200-1800)

Innovation Our proposed Program (PREVENT HCC – through Screening, Vaccination and Treatment of Viral Hepatitis has several innovative components none of which currently exist • First program in state of Texas to combine high risk and baby boomer screening to cover all conditions specified by USPSTF recommendations for hepatitis screening • Culturally and linguistically appropriate multi-media HBV and HCV education materials • Didactic and interactive multimedia education of a network primary care providers • A point of care automated provider alerts for HBV and HCV screening, reflex diagnostic confirmation and linkage to preventive services • A coordinated HHS referral process by navigators to addresses patient-specific and HHS barriers

Significance and Impact Given high prevalence targeting Harris County through HHS is a high yield approach. The successful implementation of the proposed project will results in a considerable increase in the number of patients screened, diagnosed, educated, vaccinated, treated and controlled or cured for HBV and HCV; result in a reduction in the morbidity and mortality related to chronic liver disease and HCC in Texas.