Sacramento Collaborative to Advance Testing and Care of Hepatitis B (SCrATCH B)

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Agenda

• Scope of Hepatitis B in Sacramento
• In-Reach
• Out-Reach
• Impact
Sacramento Demographics

County 1.46 million total population
Metro 2.1 million total population

5th highest % by API in a metropolitan area
SCrATCH B: In-Reach
In-Reach Linkage to Care

• Case Manager (Ann Sanchez, RN)
  – 2-year retrospective and prospective quarterly reports of all HBsAg tests
  – Data collected regarding place of birth, etc for purposes of grant
  – Review of all HBsAg Positive
    • New versus prior diagnosis
  – Coordination of Care
    • Follow up testing by PCP versus Referral

• UC Davis Hepatitis B Clinic
  – Hepatologists (Christopher Bowlus, MD & Eric Chak, MD)
  – Case Manager (Sherri Shockley, RN)
  – Pharmacist (Rebecca Hluhanich, PharmD)
Electronic Medical Alerts Increase Screening for Chronic Hepatitis B: A Randomized, Double-Blind, Controlled Trial

Eric Chak¹, Amir Taefi¹, Chin-Shang Li², Moon S. Chen Jr³, Aaron M. Harris⁴, Scott MacDonald⁵, and Christopher Bowlus¹

Abstract

Background: Implementation of screening recommendations for chronic hepatitis B (CHB) among foreign-born persons at risk has been sub-optimal. The use of alerts and reminders in the electronic health record (EHR) has led to increased screening for other common conditions. The aim of our study was to measure the effectiveness of an EHR alert on the implementation of hepatitis B surface antigen (HBsAg) screening of foreign-born Asian and Pacific Islander (API) patients.

Methods: We used a novel technique to identify API patients by self-identified ethnicity, surname, country of origin, and language preference, and who had no record of CHB screening with HBsAg within the EHR. Patients with Medicare and/or Medicaid insurance were excluded due to lack of coverage for routine HBsAg screening at the time of this study.

At-risk API patients were randomized to alert activation in their EHR or not (control).

Results: A total of 2,987 patients met inclusion criteria and were randomized to the alert (n = 1,484) or control group (n = 1,503). In the alert group, 119 patients were tested for HBsAg, compared with 48 in the control group (odds ratio, 2.64; 95% confidence interval, 1.88–3.73; P < 0.001). In the alert group, 4 of 119 (3.4%) tested HBsAg-positive compared with 5 of 48 (10.4%) in the control group (P = 0.12).

Conclusions: An EHR alert significantly increased HBsAg testing among foreign-born APIs.

Impact: Utilization of EHR alerts has the potential to improve implementation of hepatitis B–screening guidelines.

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Introduction

One in four patients with chronic hepatitis B (CHB) will die prematurely from liver cirrhosis, hepatocellular carcinoma (6, 7). Current guidelines from the Centers for Disease Control and Prevention, United States Preventive Services Task Force, and the American Association for the Study of Liver Diseases, recommend annual HBsAg testing for CHB in all patients.
EMR Alert for Hepatitis B Screening

- Novel Algorithm used to identify at-risk ANHPI not yet screened for CHB
  - Contrast to simply filtering by birth cohort for HCV (1945-1965)
- Exclusion:
  - Prior HBsAg
  - HBV diagnosis
  - Medicare/Medicaid // CMS unfortunately did not cover HBsAg at time of study

- Control (n=1503)
  - 48 were tested for HBsAg
- Alert (n=1484)
  - 119 were tested for HBsAg
- Conclusion: EHR alerts significantly increased CHB testing rates
EHR Alert: Conclusions

- EHR Alert: More than Doubles CHB Screening!
- Effect is small though: 8% versus 3.2
- Possible reasons:
  - alert is passively present in the pt’s chart
  - If a pt did not present to their PCP during the study period, the alert would not be seen, and the HBsAg test would not have been ordered.
- EMR did not increase HBsAg positive tests
- To improve screening:
  - Patient navigator
  - Inform patients and PCP (electronic messages, letter, phone calls, MD to MD education)
  - Opt-out CHB screening
- UCD Medicare/Medi-cal patients had the alert activated 2018-09-09
Summary of In-Reach Screening

• Lessons Learned
  – Obtrusive interventions work but are unacceptable to the PCP
  – EMR-based alerts increase screening but several questions remain
  – Implementation of system-wide interventions requires collaboration
    • Multiple partners
      – PCP, IT, Administration, Insurers, Patients
    • Invested in hepatitis B
      – Competing diseases

• Future Plans
  – Continue/Expand EMR Alert
  – Trial Pre-Visit Planners
SCrATCH B: Outreach
Scratch B Community Timeline

**Relationships**
Community presentations, Meet with gatekeepers, Promote & educate

**Training**
Train students and CBO’s on process and procedures

**Logistics**
Venue, advertise, Scheduling, Man Power, Inventory

**Day of**
Mobile Hep B Screening Unit, Translators, Transport

**Follow-up**
Test results, Scheduling, Translation, Tracking, lasting infrastructure
Literature Review

Developing a Framework

Hmong Lay Health Worker

TAAS

SCRATCH B
Outreach and Promotion

Social Media
@UCDPophealth (Twitter)
ucdpophealth (Instagram)

UCD CCC
Calendar and Events

Newspaper
Ethnic Newspapers

Radio
Ethnic Radio

Flyering
CBO's, Shopping Centers, Grocery Stores, etc.

Listservs
CAPITAL, APICC
44 Community Hepatitis B screenings held at 20 different venues
SCrATCH B: Impact
Tangible differences were effected on the individual level

One SCrATCH B participant was a young Buddhist monk who had just recently immigrated from Vietnam. Despite his relatively young age, the monk’s kindness, smiles, and body language implicitly spoke of his significant role in his community. One could see that other participants at our Outreach screening event deferred to his actions as to whether or not they should also be screened that day for hepatitis B. The community respected him, and so as soon as he got screened, everyone else followed. On the way out, he grabbed my hand and thanked us for doing such a good service for the community.

A week later, the results came back – he screened positive. After informing him of the results, he was terrified and asked for further clarification. This monk, who I met at the screening as confident young man, was now asking me whether the severity of this infection would require him to step down from his role as a monk – you can see the sincerity in his concern for the community; he immediate concerns were unselfish. He was more afraid about the safety of the community rather than himself.

As per protocol through our post-testing counseling, we provided him all the relevant information. We reassured him that although, yes, the virus may be infectious through specific means such as blood transmission, it’s difficult and there was no need for him to step down from his role as a Buddhist monk. With a sense of relief, he thanked us. He brought up other concerns such as his lack of confidence in his fluency in English which would in turn make it difficult for him to navigate the complex U.S. healthcare system. Fortunately through the initial work of our grant and past projects, the relationships we had built with local CBOs provided us the infrastructure to connect him to high quality care. He was enrolled as patient to our free clinic at Paul Hom Asian Clinic/VN CARES.
SCrATCH B: Hepatitis B Linkage-to-care continuum

- HBsAg-positive patients: 249
- Number referred to care: 205
- Number attending 1st medical visit: 174
- Number receiving HBV-directed care (HBeAg, DNA, ALT): 158
- Number receiving HCC screening: 176
- Number prescribed antivirals: 50
SCrATCH B Impact

Reported HBV Cases in Sac County

No. Confirmed Cases

Year
2010
2011
2012
2013
2014
2015

UC Davis
Total

Tested Sep 2014 to Dec 2017

UC Davis
Total

1943
62.8%

1147
37.1%
SCrATCH B Thank you Dinner

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