Implementing Adult Hepatitis B Immunization and Screening Using Electronic Health Records:

A PRACTICAL GUIDE

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Summary of Recommendations



Universal Hepatitis B Vaccination in Adults Aged 19–59 Years: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2022

Weekly / April 1, 2022 / 71(13);477–483

- All adults 19-59
- 60+ with risk factors
- Anyone who wants a vaccine



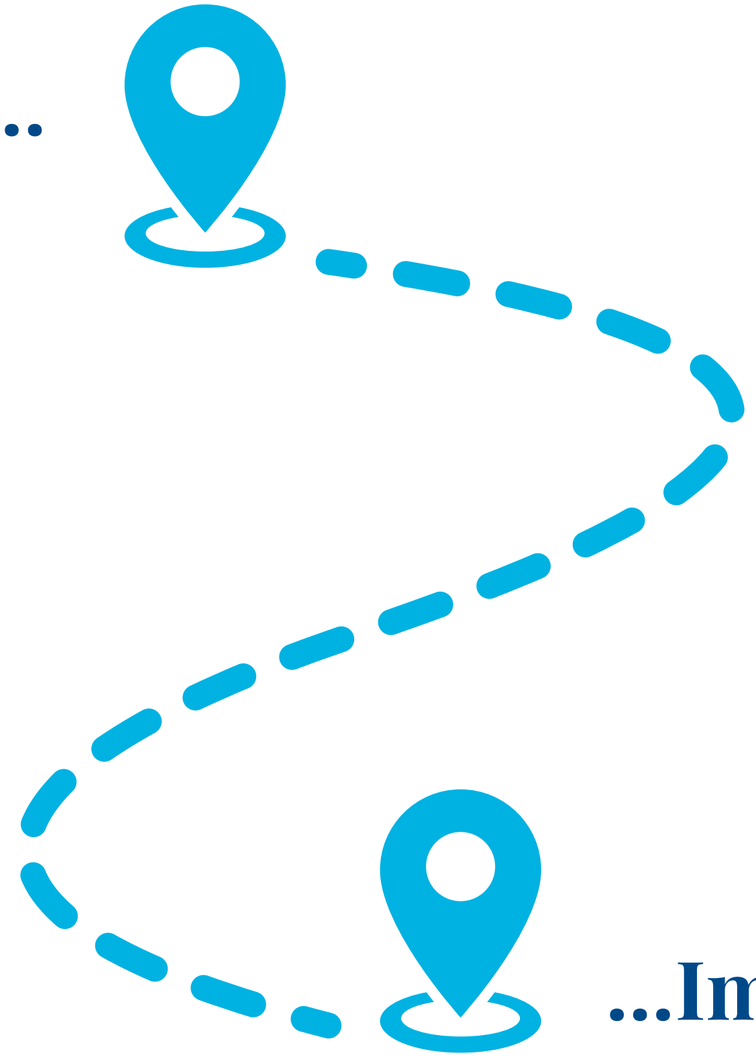
Screening and Testing for Hepatitis B Virus Infection: CDC Recommendations — United States, 2023

Recommendations and Reports / March 10, 2023 / 72(1);1–25

- All adults 18+ at least one time in their life
- All pregnant persons
- Anyone who wants to be tested

Purpose

Recommendations ...



...Implementation.

Background

Immunize.org

HEPATITIS B® FOUNDATION
hepb.org

UNIVERSITY of WASHINGTON

Beth Israel Deaconess Medical Center

HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

Implementation Challenges



Younger adults more likely vaccinated, although screening may show negative anti-HBs



Lack of vaccination records for Hep B series - needed only once for most

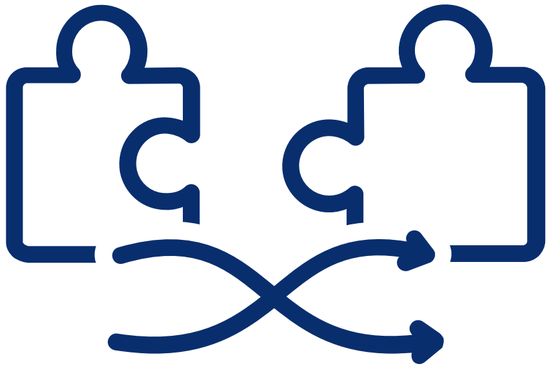


Limited provider awareness and confusion around interpreting HBV serology



Vaccination is covered, but not screening

Biggest Challenge?



Integrating new adult hepatitis B vaccination AND screening recommendations simultaneously

One Practical Solution – EHR Systems

Open Access Viewpoint

Implementing Adult Hepatitis B Immunization and Screening Using Electronic Health Records: A Practical Guide

by H. Nina Kim [1,*], Kelly L. Moore [2,3], David L. Sanders [2], Michaela Jackson [4], Chari Cohen [4], Richard Andrews [5,6] and Camilla S. Graham [7]

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Vaccines **2024**, *12*(5), 536; https://doi.org/10.3390/vaccines12050536

- **Framework for simultaneous implementation, including how to:**
- **Common questions from providers with limited hepatitis B familiarity**

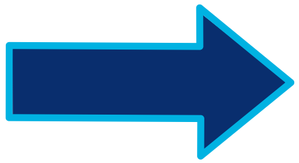
ELECTRONIC HEALTH RECORD FOR HEP B VACCINATION

Doe, Jane **F** **SEP 23, 1987** **My Schedule** **Tasks**

Type Last Entry Type Last Entry

Routine Immunizations

- ☐ Hepatitis A Vaccination
- ☐ HPV Vaccination
- ☐ MenACWY



- ☑ **Hepatitis B Vaccination**
  - ▶ **Engerix-B, Adult Standard Dose (1mL/dose)**
  - ○ Recombivax HB, Adult Standard Dose (1mL/dose) (preferred for pregnancy)
  - ○ Heplisav-B Adult Routine Administration (1mL/dose)
  - ○ Engerix-B, high dose (40mcg - 2 dose) (End stage renal disease, immunocompromised host)

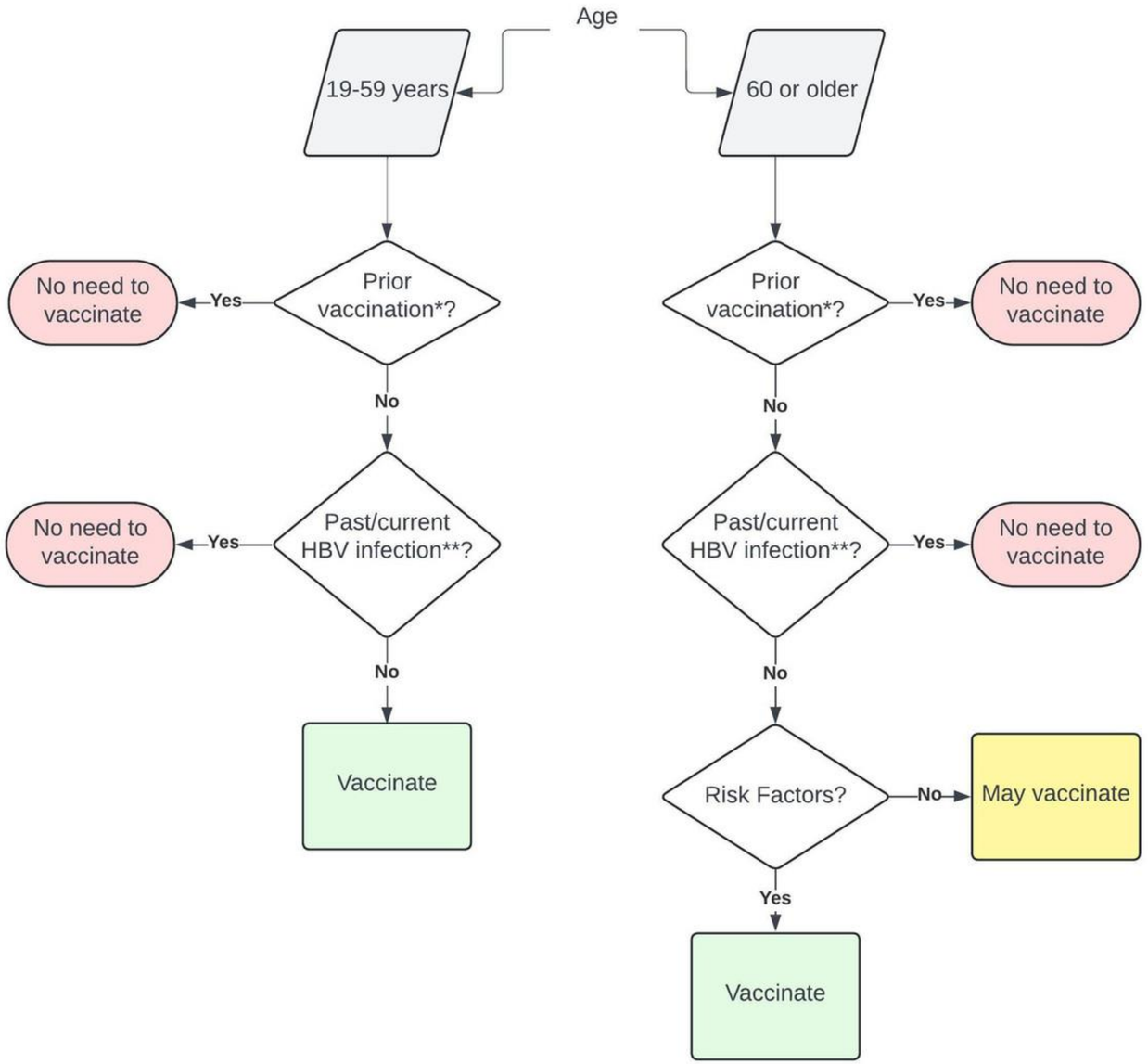
Credit: Camilla Graham, MD, MPH

Suggested EHR Process

1. Identify Eligible Patients/ Triggers
    a. Inclusion/exclusion criteria
    b. Needs to be sourced from somewhere (patient demographics, billing data, test results, etc)

2. Order Sets
    a. Proper vaccine based on population
    b. Bundle all 3 HBV serologic tests into one screening panel

3. Documentation and Follow-Up
    a. Follow up visits
    b. Guidance for results interpretation



Hep B Vaccination Workflow

Kim HN, Moore KL, Sanders DL, Jackson M, Cohen C, Andrews R, Graham CS. Implementing Adult Hepatitis B Immunization and Screening Using Electronic Health Records: A Practical Guide. Vaccines. 2024; 12(5):536. https://doi.org/10.3390/vaccines12050536

HBsAg	Total Anti-HBc	Anti-HBs	Interpretation	Management	Hep B Vaccination
+	+	–/+	Current infection	Refer for management of active HBV *Refer household and sexual contacts for HBV screening and vaccination	NO
–	+	+	Prior infection with immune control	Add “risk of reactivation with immunosuppressive medications” to problem list	NO
–	+	–	Prior infection or Window period or Occult infection or False positive	Refer to GI/ID for evaluation	Probably NO
–	–	+	Immune from prior vaccination	No further action - protected for life from chronic HBV infection	NO
–	–	–	Susceptible	Vaccinate unless **documented** receipt of full vaccine series and low risk acquisition	YES
+	–	–	False positive	Repeat screening panel in 30 days BEFORE next HBV vaccine given	YES

Camilla Graham, MD, MPH : Modified from “Hepatitis B Management: Simplified Guidance for the Primary Care Provider”

Frequently Asked Questions

What Are the Options for the Timing of HBV Screening and Vaccination Initiatives?



Who should receive the EHR prompts or reminders for Hep B vaccination?

Can a health system conduct a Hep B vaccination program without implementing a screening program?

What is Needed for Successful Implementation?

- Broad uptake of catch-up Hep B vaccination of adults
  - EHR prompts can help
- Broad insurance coverage to facilitate integration of CDC universal adult HBV screening recommendation with vaccination
  - USPSTF alignment required
- Greater awareness by public AND providers about the value of Hep B vaccination and screening
- Consistent use of IIS for adult vaccinations to prevent unnecessary revaccination
  - Reduce burden for providers and laboratories

HEPATITIS B FOUNDATION
www.hepb.org

Thank you!

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