

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

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## A PRACTICAL GUIDE

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# Summary of Recommendations

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Morbidity and Mortality Weekly Report (*MMWR*)

Search

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



Morbidity and Mortality Weekly Report (*MMWR*)

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

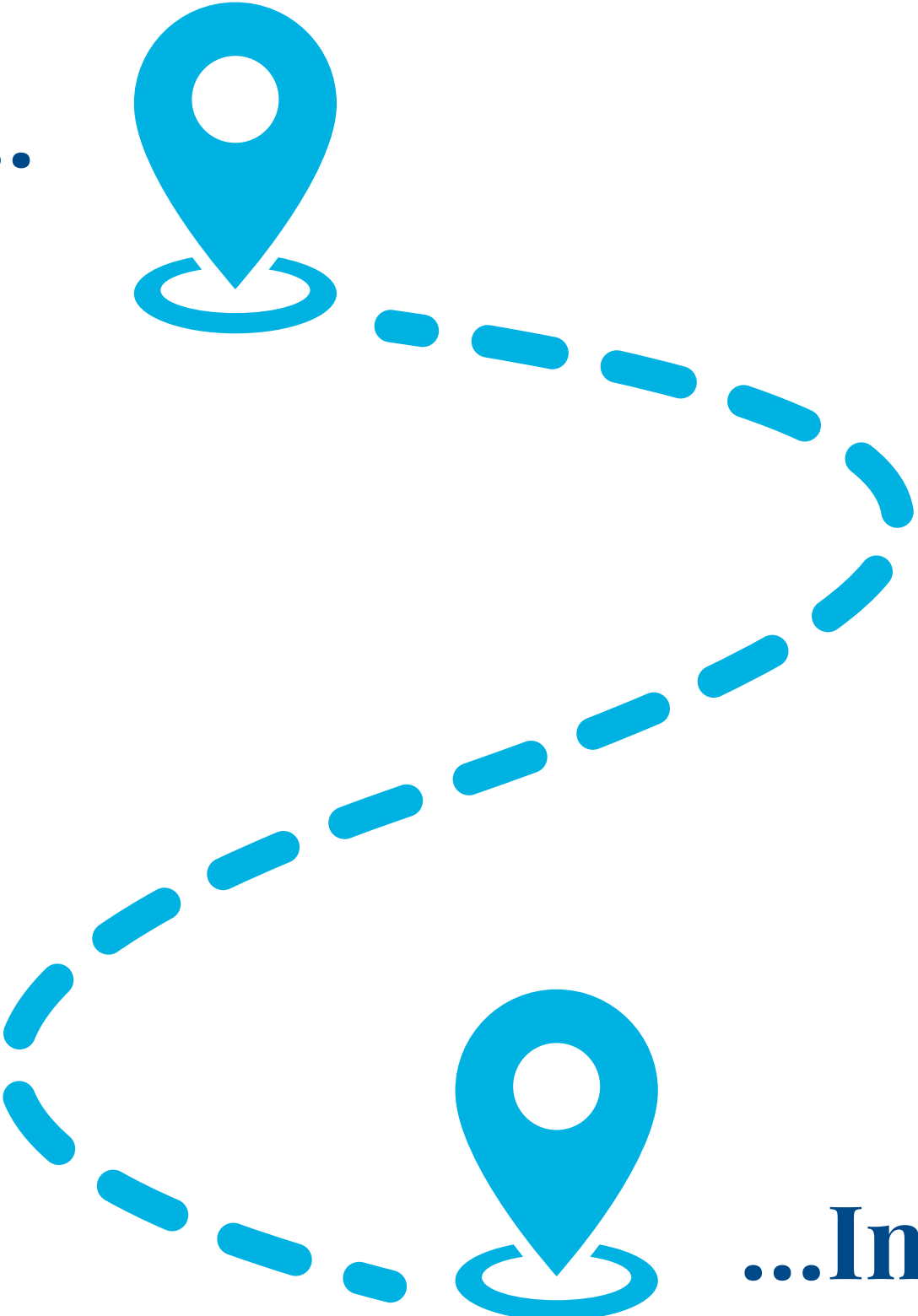
Recommendations and Reports / March 10, 2023 / 72(1);1–25

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

# Purpose

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**Recommendations ...**



**...Implementation.**

# Background

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Beth Israel Deaconess  
Medical Center

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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**

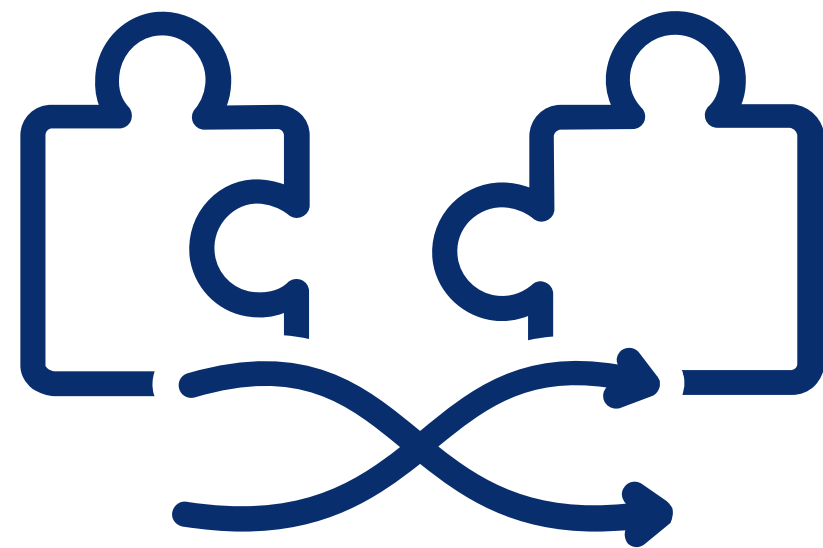


**Limited provider  
awareness and  
confusion around  
interpreting HBV  
serology**



**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 <sup>1,\*</sup>  , Kelly L. Moore <sup>2,3</sup>, David L. Sanders <sup>2</sup>, Michaela Jackson <sup>4</sup>, Chari Cohen <sup>4</sup> , Richard Andrews <sup>5,6</sup> and Camilla S. Graham <sup>7</sup>

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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)



# Suggested EHR Process

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## 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

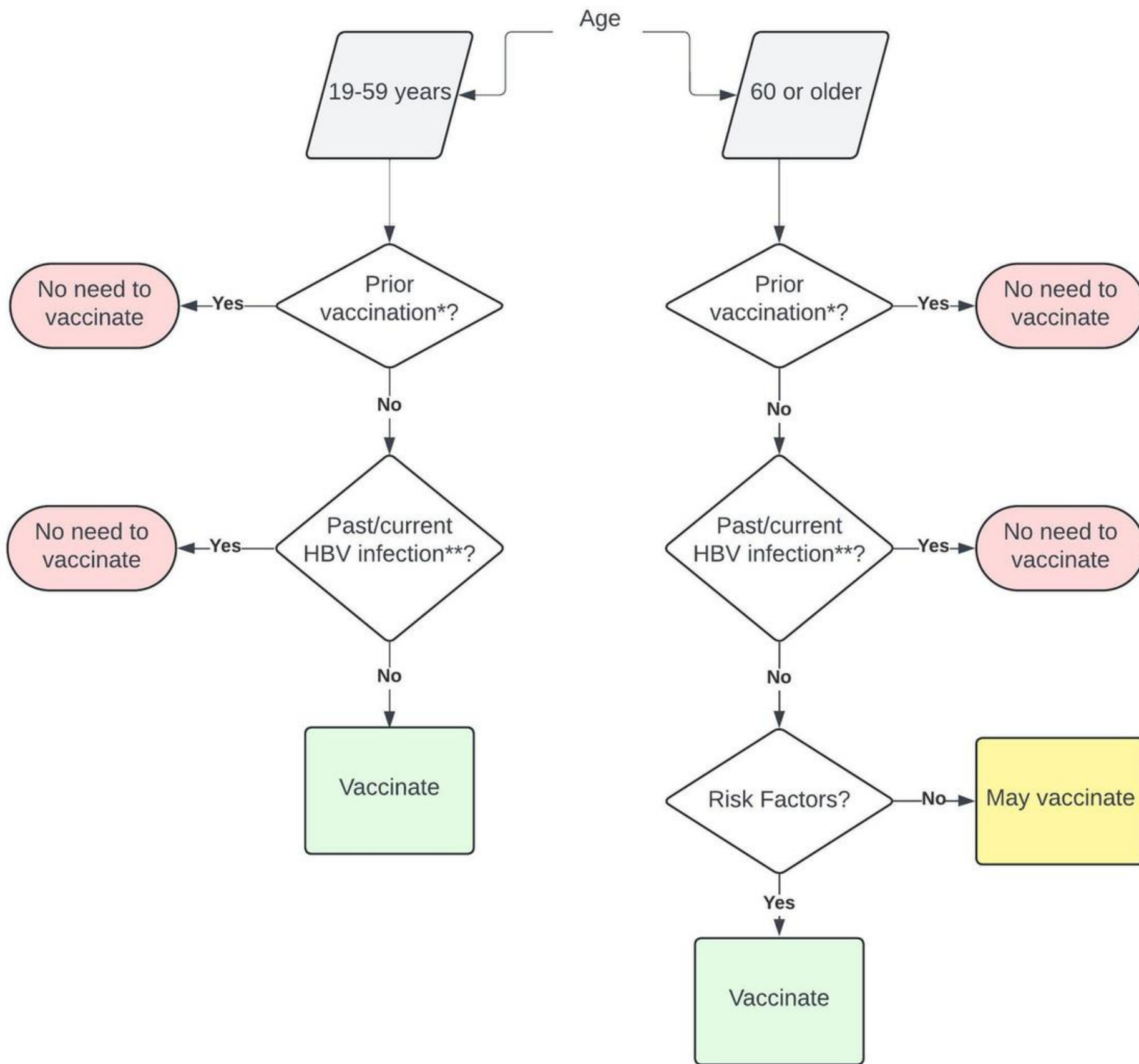
a. Proper vaccine based on population

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

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 <b>documented</b> receipt of full vaccine series and low risk acquisition	YES
+	-	-	False positive	Repeat screening panel in 30 days BEFORE next HBV vaccine given	YES

# 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

# Thank you!

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