



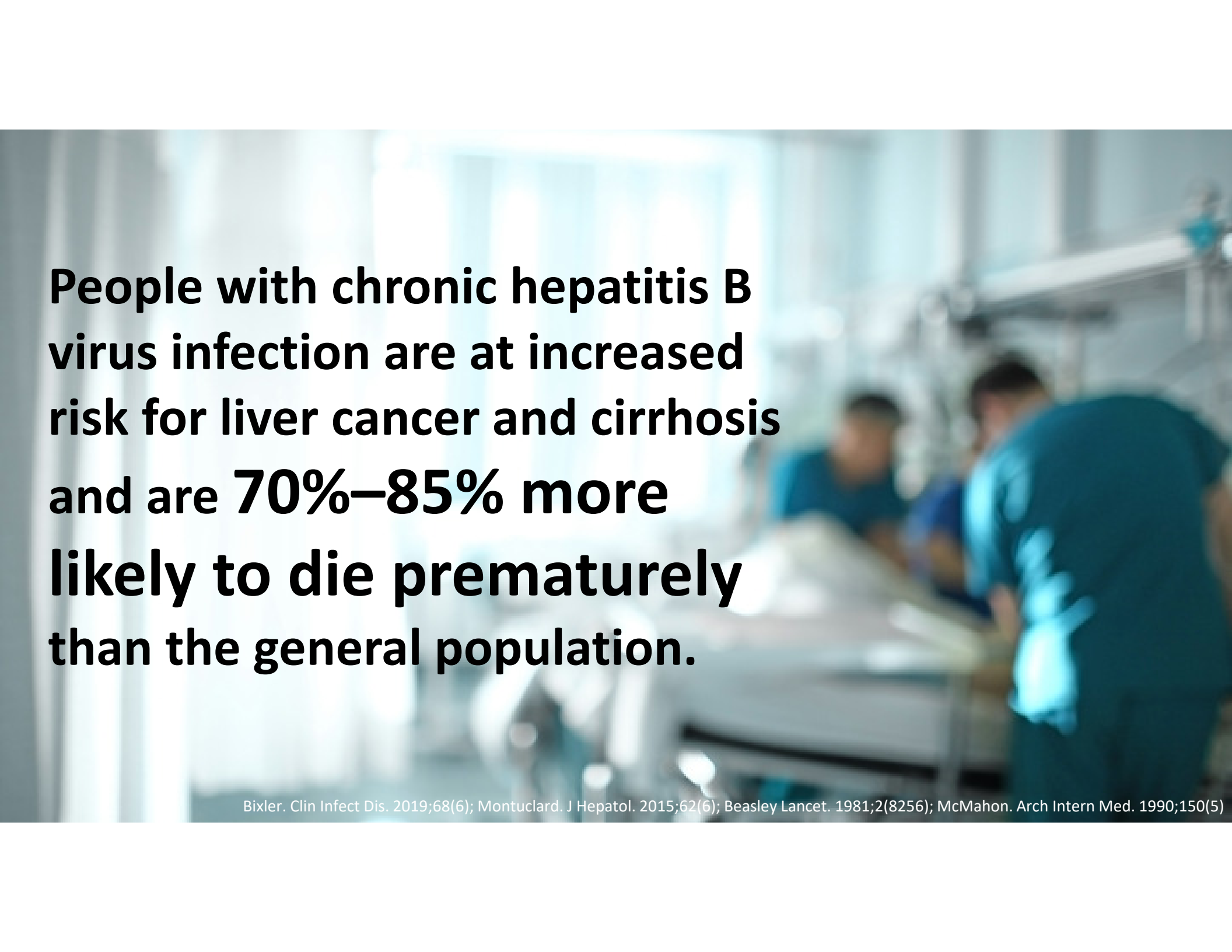
CDC Recommendations for Hepatitis B Screening and Testing

Erin Conners, PhD

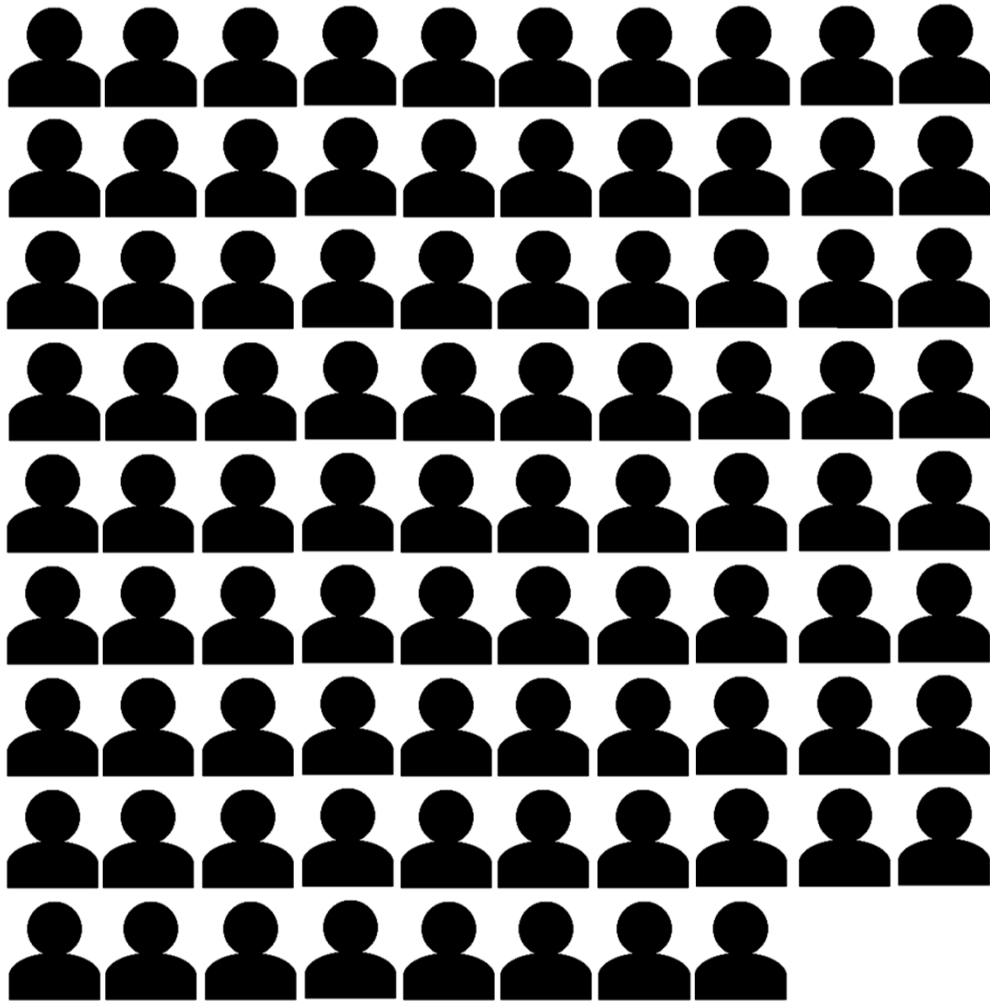
Division of Viral Hepatitis

Hepatitis B Foundation Webinar

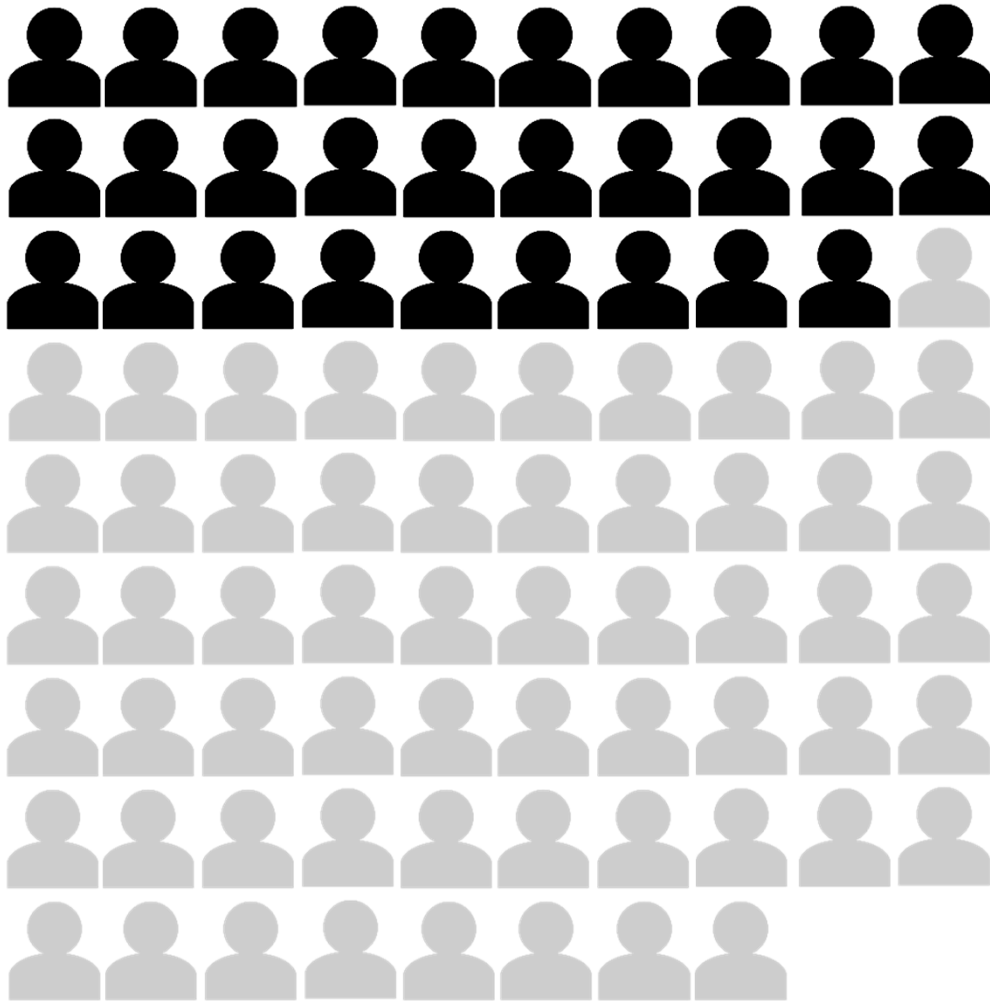
March 27, 2023

A blurred background image of a hospital or clinical setting. In the foreground, a person in a teal scrub top is seen from the back, looking towards a patient on a gurney. Other medical staff in teal scrubs are visible in the background, working around the patient. The scene is brightly lit, likely by overhead medical lights.

People with chronic hepatitis B virus infection are at increased risk for liver cancer and cirrhosis and are 70%–85% more likely to die prematurely than the general population.



There are
880,000
people living with
hepatitis B in the
U.S.



**34% are aware
of their infection**

Limitations of current risk-based testing approach



Over 2/3 of reported acute cases were either missing risk data or reported no identified risk

A diverse group of smiling people of various ages and ethnicities. The group includes a young woman with a large afro, a man with a beard, a woman with long blonde hair, and an older man with white hair. They are all smiling and looking towards the camera. A semi-transparent teal banner is overlaid on the bottom half of the image, containing white text.

NEW: Screening is recommended for all adults aged ≥ 18 years at least once in a lifetime



UNCHANGED: Screening is recommended for all pregnant persons during each pregnancy, preferably in the first trimester, regardless of vaccination status or history of testing

Screening Tests

HBsAg

Anti-HBs

Total anti-HBc

Interpretation of hepatitis B serologic test results

Clinical State	HBsAg	Anti-HBs	Total Anti-HBc	Action
Acute infection	Positive	Negative	Positive (IgM positive)	Link to hepatitis B care
Chronic infection	Positive	Negative	Positive (IgM negative)	Link to hepatitis B care
Resolved infection	Negative	Positive	Positive	Counsel
Immune from vaccination	Negative	Positive	Negative	Reassure if history of HepB vaccine series completion
Susceptible, never infected	Negative	Negative	Negative	Offer HepB vaccine if no history of HepB vaccine series completion
Isolated core antibody positive	Negative	Negative	Positive	Consult with specialist

Testing recommendations

- **History of risk for HBV infection (all ages)**
 - susceptible during the period of risk


- **Periodic testing for susceptible persons (all ages)**
 - ongoing risk, while risk persists





NEW: Anyone who requests hepatitis B testing should receive it, regardless of disclosure of risk.

Rationale for Universal Screening

- ✓ **HBV infection has substantial morbidity and mortality**
 - ✓ **Chronic infection can be detected before the development of severe liver disease using reliable and inexpensive screening tests**
 - ✓ **Treatment for chronic HBV infection can reduce morbidity and mortality**
 - ✓ **Reduce risk of transmission**
 - ✓ **Cost-effective**
 - ✓ **Screening can identify people who are at risk for reactivation**
 - ✓ **Screening might identify people who would benefit from vaccination**
- 

2022 ACIP Recommendations Adult HepB Vaccination



- **The following groups *should* receive hepatitis B vaccines:**
 - Adults aged 19 - 59 years
 - Adults aged ≥ 60 years with risk factors for hepatitis B
- **The following groups *may* receive hepatitis B vaccines:**
 - Adults aged ≥ 60 years without known risk factors for hepatitis B



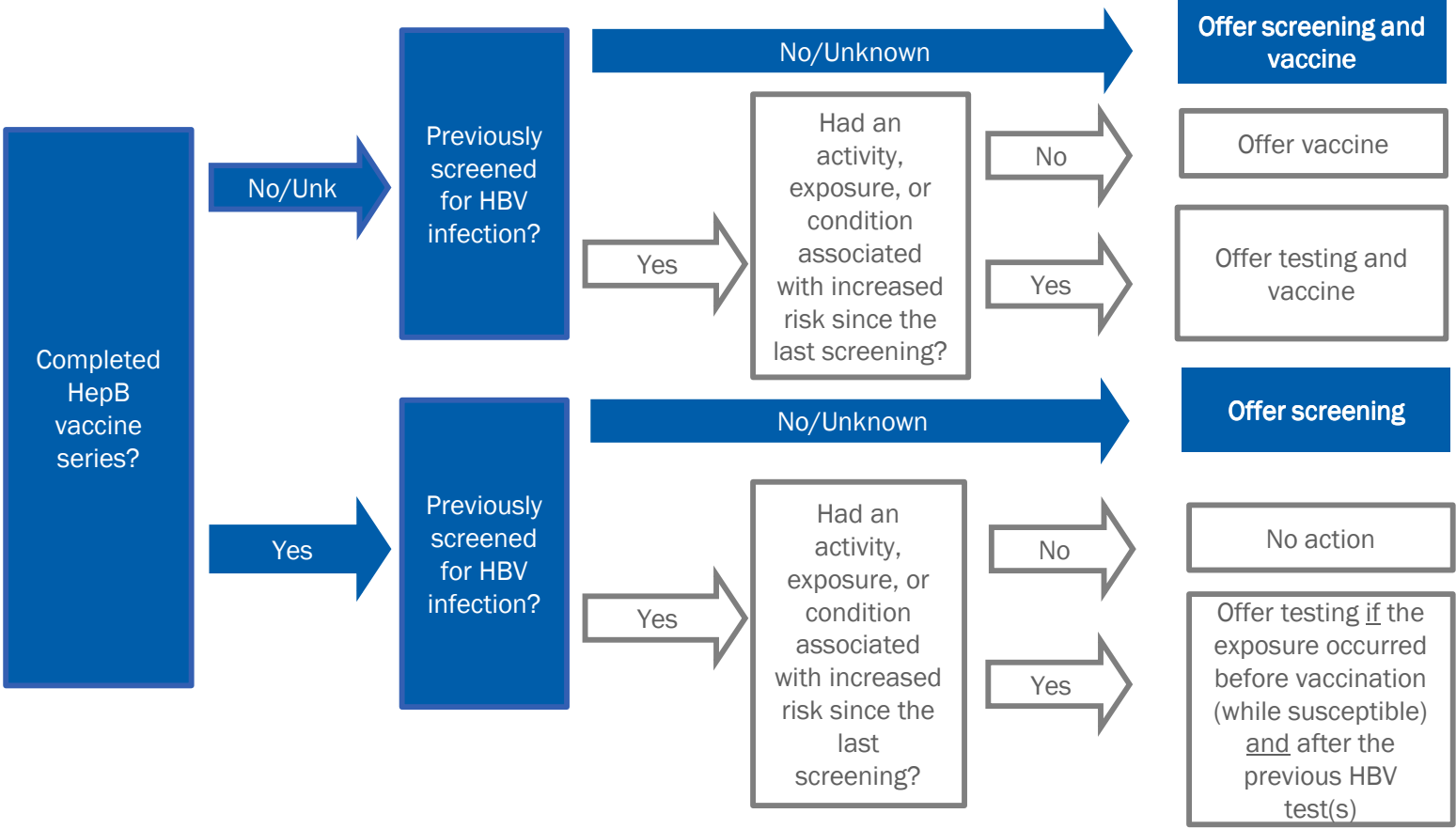
- **Collect blood**
- **Offer vaccine per ACIP**
- **No need to wait for results**
- **Screening should not be a barrier**

What if the provider can't offer screening at the time of Hep B vaccination?

- **Screening should not be a barrier to HepB vaccination**
- **One-time screening with a triple panel should still be offered during future visits, where blood draw is available**
 - cost-effective
- **Transient HBsAg positivity can occur within 30 days after vaccination**

Incorporating hepatitis B screening into a clinic workflow

Nonpregnant adults ≥ 18 years without a known history of HBV infection

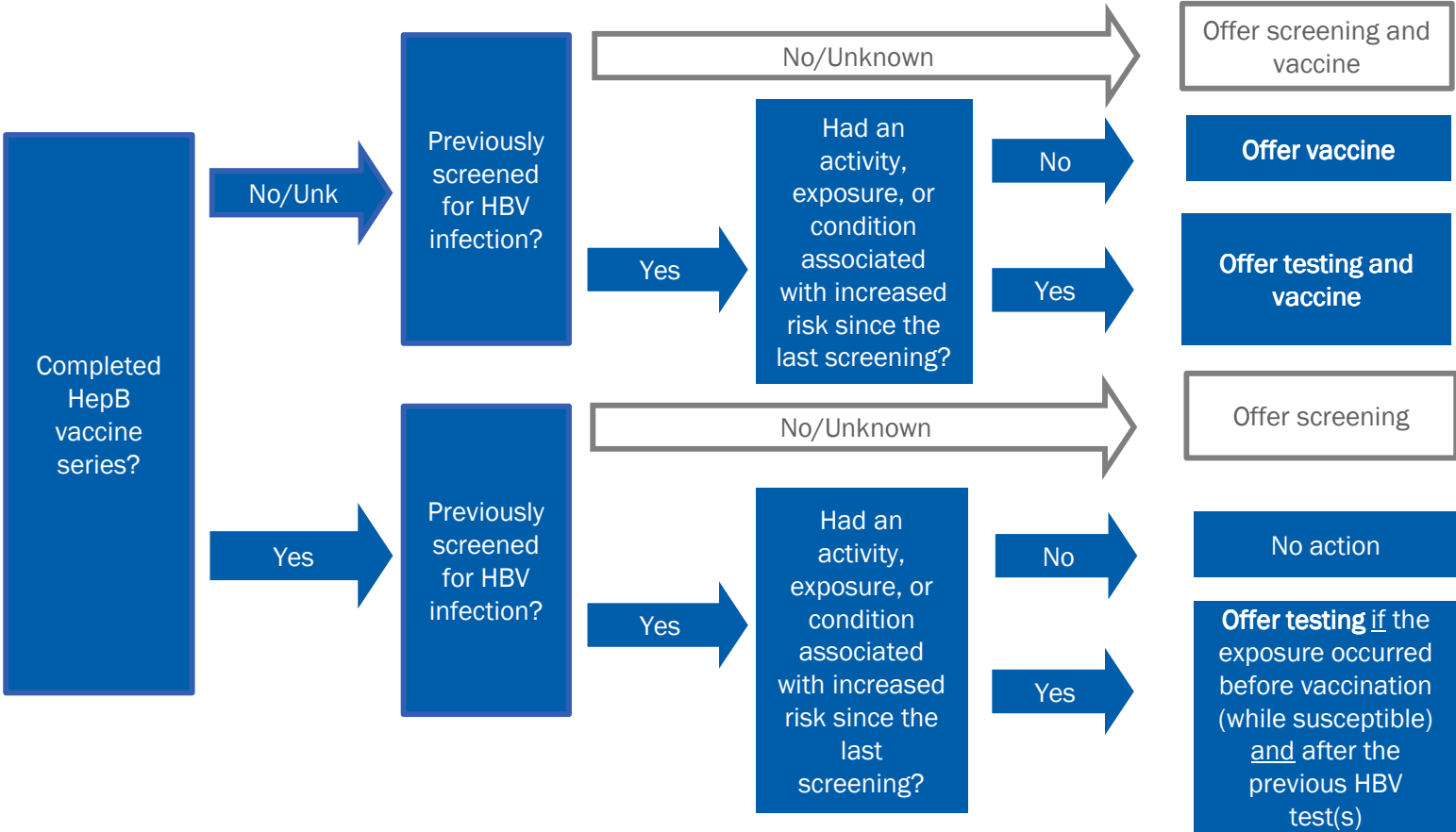


The following people have an increased risk for HBV infection and are recommended for periodic testing:

- infants born to hepatitis B surface antigen (HBsAg)-positive pregnant people
- people born in regions with hepatitis B prevalence >2%
- U.S.-born people not vaccinated as infants whose parents were born in regions with hepatitis B prevalence >8%
- people with current or past IDU
- **people currently or formerly incarcerated in a jail, prison, or other detention setting [New recommendation]**
- people with HIV infection
- **people with current or past hepatitis C virus infection [New recommendation]**
- men who have sex with men
- **people with current or past sexually transmitted infections (STIs) or multiple sex partners [New recommendation]**
- current or former household contacts of people with known HBV infection
- needle-sharing or sexual contacts of people with known HBV infection
- persons on maintenance dialysis, including in-center or home hemodialysis and peritoneal dialysis, or who are predialysis
- people with elevated alanine aminotransferase (ALT) or aspartate aminotransferase (AST) levels of unknown origin

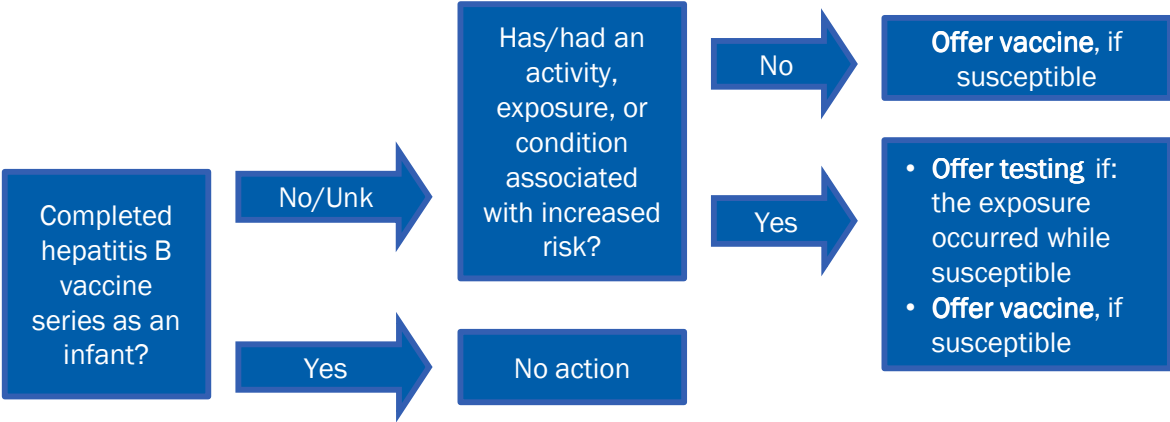
Incorporating hepatitis B testing into a clinic workflow

Nonpregnant adults ≥ 18 years without a known history of HBV infection



Incorporating hepatitis B screening and testing into a clinic workflow

Children and adolescents 1–17 years without a known history of hepatitis B virus infection



Clinical Considerations

- **Frequency of periodic testing a shared decision**
 - individual risk factors, immune status
- **Multiple sex partners**
 - insufficient evidence
 - number of partners, type of sex, timing of last test
- **Clinical benefits of screening ≥ 80 years of age**

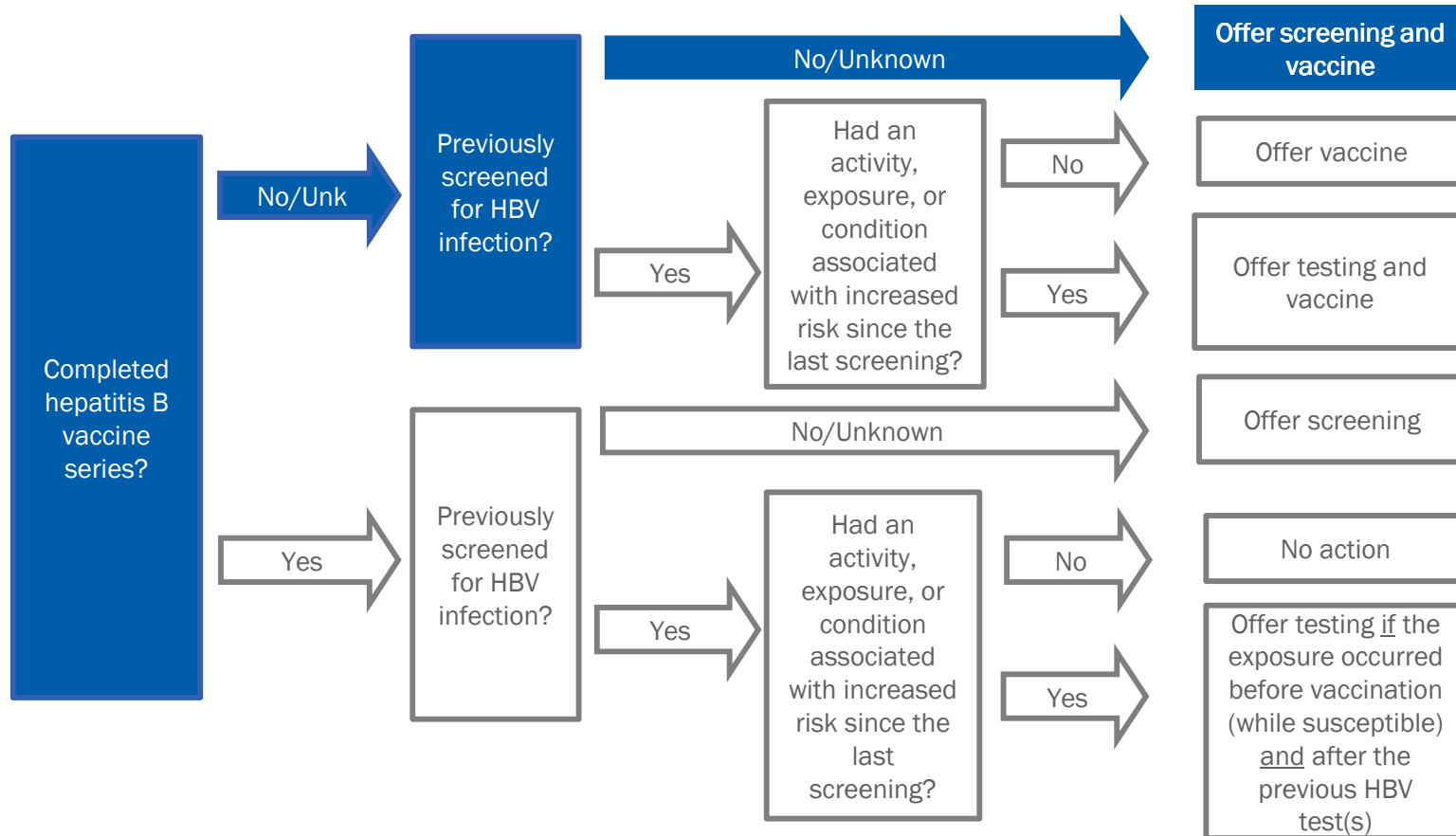
Hypothetical Clinical Scenario

Charlie, 42yo

- History of injection drug use, doesn't currently use drugs
- Doesn't remember if vaccinated
- No evidence of prior screening

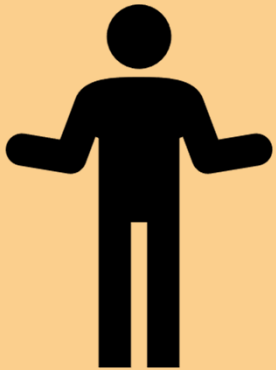


Visit 1



Charlie, 42yo

- History of IDU, doesn't currently use drugs
- Doesn't remember if vaccinated
- No evidence of prior screening

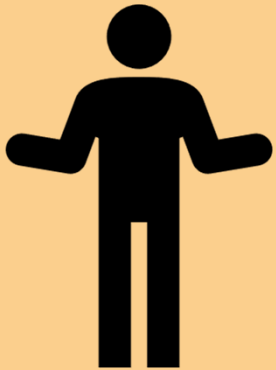


Visit 1

- Draw blood for triple panel prior to vaccination
- Charlie declined vaccination

Charlie, 42yo

- History of IDU, doesn't currently use drugs
- Doesn't remember if vaccinated
- No evidence of prior screening



Visit 1: summary

■ Results:

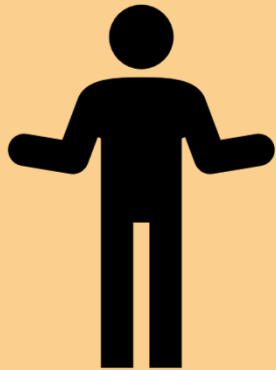
- HBsAg negative
- Total Anti-HBc negative
- Anti-HBs negative

- ### ■ Interpretation: No history of infection, susceptible

Visit 2 (1-year later)

Charlie, 43yo

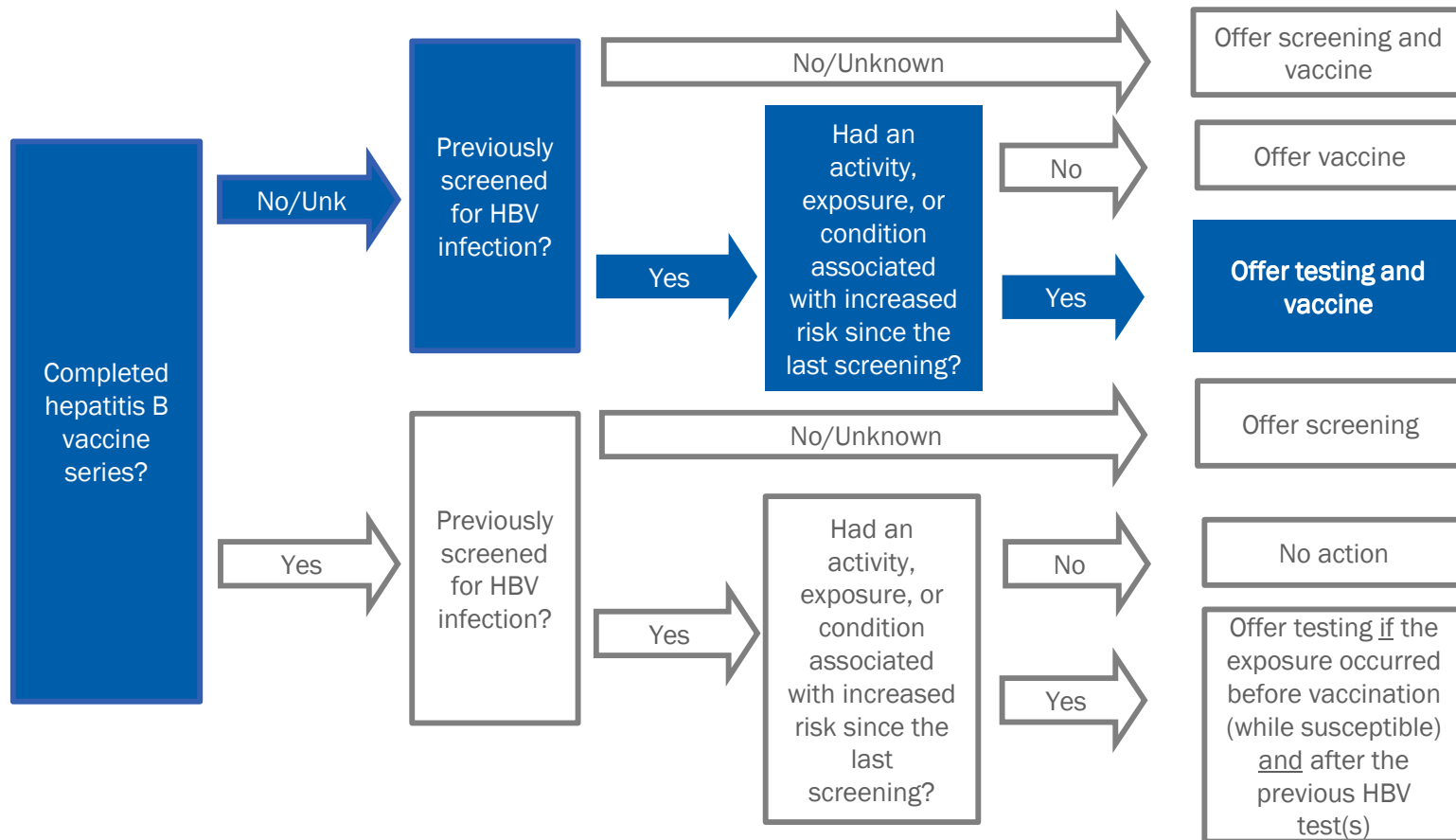
- History of IDU, didn't use drugs in past year
- Reported 4 sexual partners in past year



Visit 2 (1-year later)

Charlie, 43yo

- History of IDU, didn't use drugs in past year
- Reported 4 sexual partners in past year



Visit 2: summary

Charlie, 43yo

- History of IDU, didn't use drugs in past year
- Reported 4 sexual partners in past year



- **Discuss sexual risk**

- decided to test because inconsistent condom usage
- clinical judgement

- **Because previously screened, chose AASLD testing strategy**

- Total anti-HBc, followed by HBsAg and anti-HBs if positive

Visit 2: summary

Charlie, 43yo

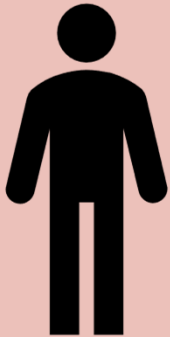
- History of IDU, didn't use drugs in past year
- Reported 4 sexual partners in past year



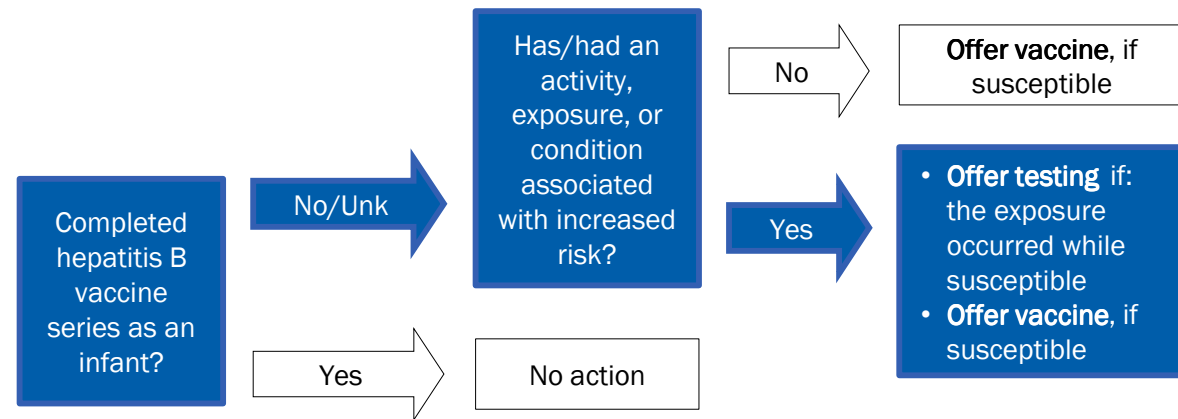
- **Results:**
 - Total anti-HBc negative
- **Interpretation: No history of infection, susceptible**
- **Continue to consider testing at future visits, depending on risk factors**
- **Continue to recommend HepB vaccine at future visits**

Mei, 13

- Immigrated from China 5 years ago
- No hepB vaccine as infant
- Completed hepB series at 8 years old

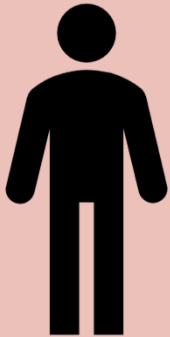


Visit 1



Mei, 13

- Immigrated from China 5 years ago
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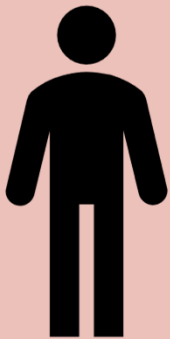


Visit 1

- **Order triple panel for screening**
 - Potential for exposure as infant or young child

Mei, 13


- Immigrated from China 5 years ago
- No hepB vaccine as infant
- Completed hepB series at 8 years old



Visit 1

- **Results:**
 - HBsAg negative
 - Anti-HBc negative
 - Anti-HBs negative
- **Interpretation: No history of infection. Has documented, complete series, no need for additional vaccine.**
 - anti-HBs may wane, but still protected

Other Resources

- **Hepatitis B Online – University of Washington**
 - <https://www.hepatitisb.uw.edu/>
 - Hepatitis B Management: Guidance for the Primary Care Provider
 - **Web MD**
 - [provider self-assessment on current guidance for prevention and management of viral hepatitis](#)
 - **Hepatitis B Foundation**
 - <https://www.hepb.org/>
 - **Immunize.org**
 - https://www.immunize.org/askexperts/experts_hepb.asp
- 

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- David Hutton
- Joshua Salomon
- Samuel So

HepB Vaccine Guidance

- Mark Weng



All adults should know their HBV status and be protected from infection



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

