
What Is the Value of Immunizing Prison Inmates Against Hepatitis B?

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Hepatitis B and Correctional Environments

- Inmates at increased risk for Hepatitis B virus (HBV) infection
- Risk is associated with high-risk drug and sex practices before incarceration
- Incidence of new infections (1–1.5 percent) is 10 times higher than in the general U.S. population

Epidemiology of Hepatitis B in Correctional Settings

- Risk for HBV transmission during incarceration is low
 - Related to behaviors?
 - Injection drug use?
 - Men having sex with men?
 - Tattooing?
 - Fights?
- Risk is as high or higher than for groups recommended for vaccine for occupational reasons
 - Health care workers (1–6 percent/year)
 - Correctional officers (1–2 percent/year)
 - Incarcerated individuals (1–1.5 percent/year)

Strategy to Eliminate HBV Transmission in United States

- Comprehensive plan proposed in 1991 by the Advisory Committee on Immunization Practices (ACIP)
 - 4 components, including high-risk adolescents and adults
 - Surveys find low coverage in high-risk groups
- Identify settings where high-risk individuals can be vaccinated
 - Criminal justice system?

Missed Opportunities for Hepatitis B Vaccination

- Sentinel counties
 - Of acute cases, 20 percent had been incarcerated
 - 18 percent had household or sexual contact with case
- National Survey of Injection Drug Users (IDUs), 45 cities
 - Between 1987 and 1989
 - 17,000 IDUs identified
 - 81 percent report jail or prison

Issues Related to Hepatitis B Vaccine Programs

- Vaccination schedules
 - Altered schedules
 - Value of 1, 2, or 3 doses
- Prevaccination testing for susceptibility
 - Greater than 30 percent prevalence
 - Consequences of test results
- Postvaccination testing serologic response
 - Not recommended
- Prevention of perinatal HBV transmission from female inmates to their infants

Hepatitis B Vaccine Seroconversion Rates (≥ 10 mIU/mL)

After 1 dose
20–50 percent

After 2 doses
85 percent

After 3 doses
Greater than 95 percent

Recommendations—I

- Implement hepatitis B vaccination programs in all correctional facilities
- Make efforts to achieve compliance with the 3-dose vaccine series
- Consider prevaccination screening in populations with an expected prevalence greater than 30 percent
- Integrate with other STD/HIV prevention programs

Recommendations—II

- Need programs to prevent perinatal transmission
- Need close cooperation between public health and criminal justice agencies to develop and implement hepatitis B vaccination programs
 - Staff training
 - Drug treatment centers
 - Followup of released prisoners
 - Treatment or vaccine series completion

Future Needs—Collaborations

- Algorithm for cost analysis
 - Cost associations
- *Healthy People 2010*—Section 2213.6B
 - Hepatitis B vaccine among inmates
 - No baseline data
 - Does a mechanism exist (periodic survey)?