



U.S. Immigration
and Customs
Enforcement

ICE Health Service Corps (IHSC)
Enforcement and Removal Operations
U.S. Immigration and Customs Enforcement

Infectious Disease Public Health Actions Guide: Management of Hepatitis

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Effective Date: June 7, 2019

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Foreword

This *Infectious Disease Public Health Actions Guide: Management of Hepatitis* supplements the following IHSC directive:

- IHSC directive: 05-06, *Infectious Disease Public Health Actions*.

This guide explains concepts, assigns responsibilities, and details procedures for public health actions for the management of hepatitis A, hepatitis B, hepatitis C and hepatitis E in IHSC-staffed medical clinics.

The intended audience is IHSC-staffed medical clinics supporting health care operations in ICE-owned or contracted detention facilities.

I. Overview

A. Purpose

This guide assists health staff implement public health actions to manage cases of hepatitis A, hepatitis B, hepatitis C and hepatitis E in facilities with IHSC-staffed medical clinics. These actions help control and limit the spread of viral hepatitis.

B. Responsibilities

Health Services Administrator (HSA), Field Healthcare Program Manager (FHPM), and Infection Prevention Officer (IPO)

- Responsible for ensuring implementation and oversight of Public Health, Safety, and Preparedness (PHSP) Unit activities in the medical and dental clinics, including public health actions for the management of hepatitis.
- Serve as a key liaison between the medical clinic and PHSP Unit staff.
- Facilitate completion of information requests related to public health actions for the management of hepatitis.

Medical Providers

- Oversee the clinical management of detainees diagnosed with viral hepatitis.
- Report patients with hepatitis to the health department in accordance with applicable local and state laws.

Health Staff

- Implement infection prevention and control measures to prevent transmission of viral hepatitis in IHSC-staffed medical clinics in accordance with applicable guidelines.
- Maintain knowledge about infection prevention and control measures applicable to work duties.

- Report hepatitis to the health department in accordance with applicable local and state laws.

Public Health, Safety, and Preparedness Unit Staff

- Provide clinical guidance on activities related to public health actions for the management of hepatitis.

IHSC Infectious Disease Consultant and Infectious Disease Advanced Practice Provider

- Provide technical guidance related to clinical management and public health actions for the management of hepatitis.

C. About Viral Hepatitis

Viral hepatitis is an inflammation of the liver caused by one of five hepatitis viruses, referred to as type A, B, C, D or E. Hepatitis A, hepatitis B, hepatitis C and hepatitis E are covered in this guide. There are variations in the epidemiology, prevention, diagnosis and treatment for each type of viral hepatitis. See the Centers for Disease Control and Prevention (CDC) [*The ABCs of Hepatitis Fact Sheet*](#) and the [viral hepatitis website](#) for information and resources.

D. Acronyms

ACIP – Advisory Committee on Immunization Practices

AI – Airborne Infection Isolation (room)

BBP – Bloodborne pathogen

CDC – United States Centers for Disease Control and Prevention

ECP – Exposure control plan

HAV – Hepatitis A Virus

HBV – Hepatitis B Virus

HCV – Hepatitis C Virus

HEV – Hepatitis E Virus

IDSA – Infectious Diseases Society of America

IG – Immune globulin

PEP – Post-exposure prophylaxis

PPE – Personal protective equipment

E. Definitions with Expanded Information

Blood-borne pathogens – Microorganisms that are present in human blood and can cause disease in humans, such as the hepatitis B virus and human immunodeficiency virus (HIV).

Contagious – When a disease can be transmitted from one living being to another through direct or indirect contact; communicable; infectious; usually microorganisms.

Exposure – The condition of being subjected to something (e.g., noise, dust, chemicals, radiation, infectious agents) that could have an adverse health effect.

Exposure incident – Eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials

Hepatitis – Inflammation of the liver; also refers to a group of viral infections that affect the liver.

Hepatitis A – Hepatitis caused by hepatitis A virus (HAV), a double-stranded DNA virus.

Hepatitis B – Injury to liver cells caused by hepatitis B virus (HBV), a double-stranded DNA virus.

Hepatitis C – Hepatitis caused by the hepatitis C virus (HCV).

Hepatitis E – A serious liver disease caused by the hepatitis E virus (HEV).

Immune globulin – Sterile preparation of antibodies (immunoglobulins) made from pooled human plasma that contains anti-HAV or anti-HBV and provides protection against hepatitis A or hepatitis B.

Infection – Invasion and growth of an infectious microorganism, such as a bacterium or virus, in the body. Infection can also refer to the disease caused by the infectious microorganism.

Infection control – Institutional procedures and policies for monitoring and attempting to control the transmission of communicable diseases.

Infectious disease public health actions – a broad range of public health activities and interventions to promote and protect health, and prevent or mitigate infectious disease transmission.

Other potentially infectious material (OPIM) – OPIM includes: 1) semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; 2) unfixed tissue or organ (other than intact skin) from a human (living or dead); 3) HIV- containing cell or tissue cultures, organ cultures, and HIV or HBV-containing culture medium or other solutions; and 4) blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Outbreak – The occurrence of more cases of disease, injury, or other health condition than expected in a given area or among a specific group of persons during a specific period.

Personal protective equipment (PPE) – Equipment that protects a person from hazardous exposures such as chemicals, dust, noise, radiation, infectious diseases and includes respirators, gloves, mask, goggles, gowns, face shields, ear plugs, hard hats, and steel toe boots.

Post-exposure prophylaxis – Short-term treatment started as soon as possible after high-risk exposure to an infectious agent, such as HIV, HBV, or HAV. The purpose of post-exposure prophylaxis (PEP) is to reduce the risk of infection after such an exposure.

Standard precautions – Infection prevention practices, including hand hygiene, that apply to all patients regardless of infectious status. Standard precautions are a combination and expansion of universal precautions and body substance isolation, based on the principle that all blood, body fluids, secretions, excretions (except sweat), non-intact skin, and mucous membranes contain transmissible infectious agents. Standard precautions include hand hygiene, and depending on the anticipated

exposure, use of gloves, gown, mask, eye protection, or face shield. Equipment or items in the patient environment likely to have been contaminated with infectious fluids must be handled in a manner to prevent transmission of infectious agents, (e.g., wear gloves for handling, contain heavily soiled equipment, properly clean and disinfect or sterilize reusable equipment before use on another patient).

Surveillance – The timely, continuous, systematic collection, analysis and interpretation of health-related data for informing urgent and routine public health activities, including public health interventions; contact and outbreak investigations; evidence-based decision making; and planning, implementation, and evaluation of public health practices.

Transmission – Any mode or mechanism by which an infectious agent is spread to a susceptible host.

Transmission-based precautions – Precautions that provide additional protections beyond standard precautions to interrupt the transmission of pathogens.

Vaccine – A suspension containing antigenic molecules derived from a microorganism, given to stimulate an immune response to an infectious disease.

II. Hepatitis A

A. About Hepatitis A

Hepatitis A is an acute liver disease caused by the hepatitis A virus (HAV), lasting from a few weeks to several months. The route of HAV transmission is fecal-oral through person-to-person contact or ingestion of contaminated food or drink. For more information, reference [CDC's hepatitis A information for health professionals](#).

B. Clinical Management

A medical provider oversees the clinical management of detainees diagnosed with hepatitis A. For clinical guidance reference [CDC's hepatitis A professional resources](#).

C. Infection Prevention and Control Measures

All health staff should routinely implement infection prevention and control measures to limit and control the spread of hepatitis A. Health staff should recommend to the facility administrator, or designee, excluding detainees diagnosed with acute hepatitis A from

food service for at least two weeks after all symptoms resolve. Health staff should also provide education regarding good hand hygiene practices to the detainee. For more information reference the IHSC directive 05-02, *Occupational Health; 05-02-G-01, Occupational Health Guide: Bloodborne Pathogens and Other Potentially Infectious Materials; 05-02, Occupational Health Guide: Personal Protective Equipment* located in the IHSC policy library; the 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings; and CDC Guidelines for Viral Hepatitis Surveillance and Case Management.

Medical providers should consider administering urgent post-exposure prophylaxis (PEP) to detainees, hepatitis A vaccine, or immune globulin (IG), during a contact or outbreak investigation at the discretion of the clinical director (CD) or designee. Medical providers should refer to the following CDC guidance regarding the appropriate administration of PEP: Update: Prevention of Hepatitis A After Exposure to Hepatitis A Virus and in International Travelers. Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP) and Hepatitis A ACIP Vaccine Recommendations.

III. Hepatitis B

A. About Hepatitis B

Hepatitis B is a liver disease caused by the hepatitis B virus (HBV) that ranges in severity from a mild illness lasting a few weeks (acute), to a long-term illness (chronic) that can lead to liver disease and/or liver cancer. HBV is transmitted by contact with infectious blood, semen, and other body fluids from having sex with an infected person, sharing contaminated needles, or it is transmitted from an infected mother to her newborn. There has also been documented child-to-child transmission from cuts and saliva. For more information reference CDC's hepatitis B information.

B. Clinical Management

A medical provider oversees the clinical management of detainees diagnosed with viral hepatitis. For clinical guidance reference CDC's hepatitis B information and professional resources.

C. Infection Prevention and Control Measures

Health staff implement the exposure control plan (ECP) to limit and control the spread of bloodborne pathogens (BBP) and other potentially infectious materials (OPIM), including hepatitis B. For more information reference the IHSC directive

05-02, *Occupational Health*; 05-02-G-01, *Occupational Health Guide: Bloodborne Pathogens and Other Potentially Infectious Materials*; 05-02, *Occupational Health Guide: Personal Protective Equipment*; and the 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. If a BBP exposure incident occurs among health staff, health staff should follow post-exposure procedures outlined in 05-02-G-04, *Occupational Health Guide: Workforce Health*.

A medical provider must administer PEP to detainees exposed to the hepatitis B virus as soon as possible, and no longer than 24 hours after exposure. The CD, or designee, should consider administering the hepatitis B vaccine or IG to detainees during an outbreak or contact investigation to control transmission. Medical providers should refer to the following CDC guidelines regarding the appropriate administration of PEP available at CDC's hepatitis B information, post-exposure prophylaxis page and Hepatitis B ACIP Vaccine Recommendations. For urgent consultation, consider calling the PEpline: <http://nccc.ucsf.edu/clinician-consultation/pep-post-exposure-prophylaxis/>.

IV. Hepatitis C

A. About Hepatitis C

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV) that can be an acute illness or chronic condition. HCV infection can lead to cirrhosis of the liver and liver cancer. HCV is transmitted by contact with the blood of an infected person, from mother to child, or by receipt of an infected organ. For more information see CDC's hepatitis C information.

B. Clinical Management

A medical provider oversees the clinical management of detainees diagnosed with hepatitis C. For clinical guidelines see CDC's hepatitis C information and professional resources and the Infectious Diseases Society of America (IDSA) hepatitis C website.

C. Infection Prevention and Control Measures

Health staff should implement the ECP to prevent the transmission of hepatitis C. For more information reference the IHSC directive 05-02, *Occupational Health*; 05-02-G-01, *Occupational Health Guide: Bloodborne Pathogens and Other Potentially Infectious Materials*; 05-02-G-02, *Occupational Health Guide: Personal Protective Equipment*; and the 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.

There is no vaccine for hepatitis C. Health staff should follow post-exposure procedures outlined in 05-02-G-04, *Occupational Health Guide* located in the IHSC policy library: Workforce Health for bloodborne pathogen exposures among health staff. For detailed guidance, health staff should refer to CDC's recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. For urgent consultations, consider calling the PEPline: <http://nccc.ucsf.edu/clinician-consultation/pep-post-exposure-prophylaxis/>.

V. Hepatitis E

A. About Hepatitis E

Hepatitis E is a liver disease caused by the hepatitis E virus (HEV), similar to HAV, but poses unique risk to pregnant females (case fatality rate of ~10-30%, depending on trimester). The route of HEV transmission is fecal-oral through person-to-person contact or ingestion of contaminated food or drink. For more information reference CDC's hepatitis E information.

B. Clinical Management

A medical provider should oversee the clinical management of detainees diagnosed with hepatitis E.

C. Infection Prevention and Control Measures

All health staff should routinely implement infection prevention and control measures to limit and control the spread of hepatitis E. Health care staff should recommend to the facility administrator or designee, to exclude detainees diagnosed with acute hepatitis E from food service for at least two weeks after all symptoms resolve. Health staff should also provide education regarding good hand hygiene practices to detainee's diagnosed with hepatitis E. For more information reference the IHSC directive 05-02, *Occupational Health*; 05-02-G-01, *Occupational Health Guide: Bloodborne Pathogens and Other Potentially Infectious Materials*; 05-02-G-02, *Occupational Health Guide: Personal Protective Equipment*; the 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, and CDC's hepatitis E information.

VI. Surveillance and Reporting

A. Surveillance

Surveillance, defined as the ongoing, systematic collection, analysis, and interpretation of health data for purposes of improving health and safety, is an important public health function.

The Public Health, Safety, and Preparedness (PHSP) Unit staff monitor the number of detainees diagnosed with hepatitis at IHSC-staffed medical clinics using the electronic health record reporting tools. To ensure the accuracy of information, it is important that medical providers use the appropriate ICD codes for viral hepatitis infection. For more information refer to 05-06-G-03, *Infectious Disease Public Health Actions Guide: Surveillance and Reporting* located in the [IHSC policy library](#).

B. Reporting

Medical providers that diagnose new cases of hepatitis are required to report specific case information to the local or state health department in accordance with local and state laws. For more information refer to the 05-06-G-03, *Infectious Disease Public Health Actions Guide: Surveillance and Reporting*.

VII. Contact and Outbreak Investigations

The FHPM, IPO, HSA, or designee, should consider implementing contact and outbreak investigations if a known exposure occurs (e.g., foodborne or fecal-oral exposure to acute HAV or HEV, tattooing, intimate contact), there is an increase in the number of cases of hepatitis, or there is more than the baseline expected occurrence at a facility or among a specific group of persons during a specified period of time. The FHPM, IPO, HSA, or designee, should consider implementing and recommending to the facility administrator, or designee, enhanced infection control measures and precautions to limit and control the transmission of hepatitis. Examples of enhanced infection control measures may include isolation, cohorting, administration of PEP and enhanced surveillance depending on the transmission route of the hepatitis virus in question. Refer to 05-06-G-01, *Infectious Disease Public Health Actions Guide: Contact and Outbreak Investigations*; 05-06-G-02, *Infectious Disease Public Health Actions Guide: Isolation and Management of Detainees Exposed to Infectious Organisms*; and 05-02-G-01, *Occupational Health Guide: Blood Borne Pathogens and Other Potentially Infectious Materials* for specific guidance regarding these public health actions located in the [IHSC policy library](#). Refer also to the [CDC viral hepatitis](#)

outbreaks health care investigation guide for information specific to viral hepatitis outbreaks.

VIII. Program Monitoring

PHSP Unit staff monitor hepatitis information using the electronic health record reporting tools. PHSP Unit staff periodically request information from health staff to monitor public health actions for the management of hepatitis at IHSC-staffed medical clinics. The HSA, FHPM, and IPO should facilitate prompt completion of information requests.

IX. Training and Education

A. Health Staff

The HSA or designee should ensure that orientation and annual training that includes isolation and social distancing principles is implemented and documented in accordance with IHSC directive 01-04, *Medical Education and Development* located in the IHSC policy library.

B. Detainees

Medical providers educate detainees diagnosed with hepatitis about transmission, risk factors, infection prevention and control measures, and PEP, if applicable.

X. Privacy and Recordkeeping

Please refer to IHSC directive 05-06, *Infectious Disease Public Health Actions* for guidance on complying with privacy and recordkeeping procedures located in the IHSC policy library.

XI. References and Resources

1. CDC viral hepatitis website
2. CDC Prevention and Control of Infections with Hepatitis Viruses in Correctional Settings, 2003
3. CDC Hepatitis C & Incarceration Fact Sheet

4. CDC The ABCs of Hepatitis Fact Sheet
5. CDC Hepatitis A Patient Education Resources
6. CDC Hepatitis B Patient Education Resources
7. CDC Hepatitis C Patient Education Resources
8. Fiore, Anthony. Hepatitis A Transmitted by Food. Clinical Infectious Diseases, 2004. Vol. 38, 705-715