



Hepatitis A Update

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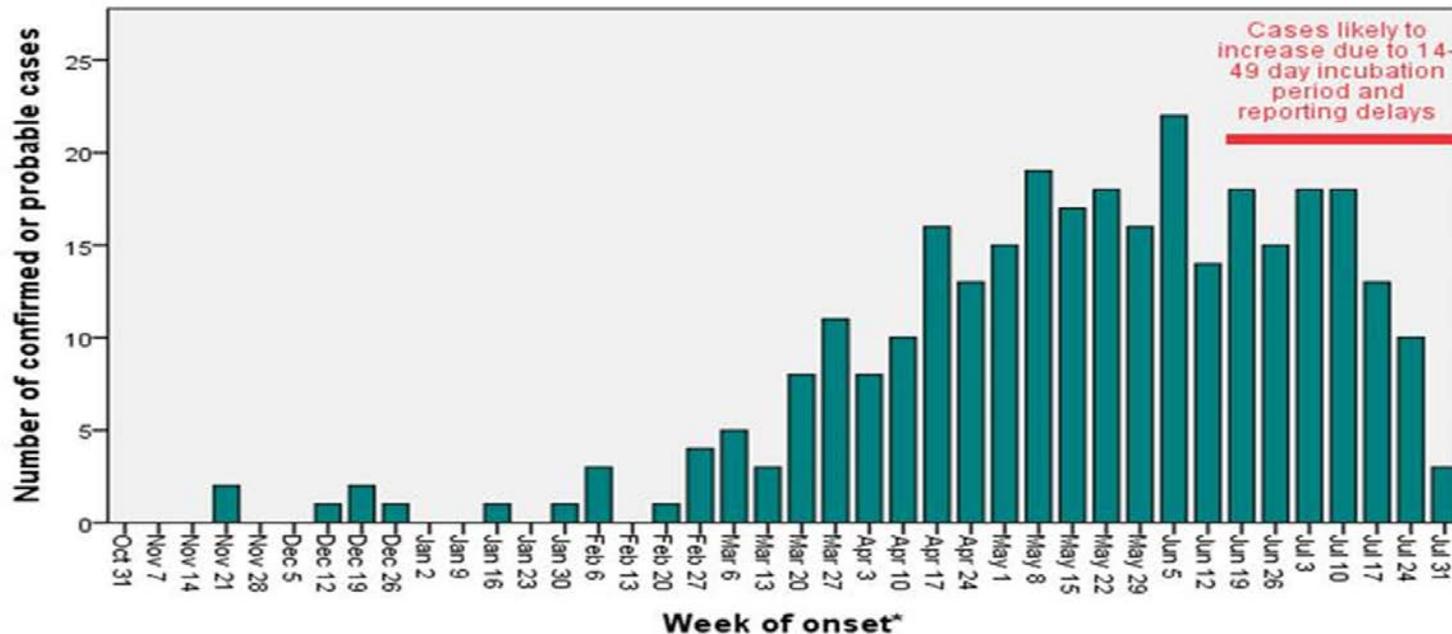
San Diego Hepatitis A Outbreak

- Between Nov. 24, 2016 and Aug. 8, 2017:
 - 312 cases; 215 (69%) hospitalizations; and 10 (3.2%) deaths
 - Most deaths associated with hepatitis C co-infection
- Of those with known status, 78% of cases in homeless and/or illicit drug users (injecting and non-injecting)
- Clusters have occurred among people who used the same service providers or resided in facilities with shared restrooms (SRO hotels, jails, residential drug treatment)
- Cases also have occurred among service providers to the homeless (shelter volunteers, sanitation workers, HCWs)

Epi-Curve of Hepatitis A in San Diego

Outbreak-associated Hepatitis A cases by onset week

11/1/2016–8/3/2017, N = 306*



*Date of specimen collection or report used if onset date unknown; dates may change as information becomes available

Modeling suggests that the outbreak will continue for about 18 more months



Hepatitis A and the Homeless, LA County, July-Aug 2017

- Two LA County (LAC) cases with exposure in San Diego
 - Board and care facility
 - State hospital
 - Cluster includes 3 secondary cases
- Previous LAC experience
 - No cases among homeless in LAC in past 2 years
 - Outbreak among homeless in 2005-6; 48 cases
- Santa Cruz County outbreak: 52 cases since April 2017 in homeless and drug users

Hepatitis A Illness

- Acute infection; ~70% of older children & adults symptomatic
- Symptoms/signs
 - Fever, fatigue, anorexia, abdominal pain, nausea/vomiting
 - Later, dark urine, clay colored stools, jaundice
- Clinical course

Infection



Incubation

Illness



~4 weeks (range 15-50 days)

Weeks to months

Virus in feces



Virus in blood





Diagnosis & Reporting

- Suspect cases based on clinical presentation & epidemiology
- Obtain hepatitis panel
 - IgM test for hepatitis A
 - Hepatitis B (core Ab and surface Ag) & hepatitis C (Ab)
- Report to Public Health
 - Report confirmed and suspect cases
 - Obtain a Confidential Morbidity Report at <http://publichealth.lacounty.gov/acd/reports/CMR-H-794.pdf> and fax to 888-397-3778
 - Don't rely on laboratories to report!
 - CMR reports included additional data

COUNTY OF LOS ANGELES • DEPARTMENT OF PUBLIC HEALTH
MORBIDITY UNIT
CONFIDENTIAL MORBIDITY REPORT

NOTE: This form is not intended for reporting STDs, HIV, AIDS or TB. See comments below.

DISEASE BEING REPORTED:		DISTRICT CODE (Internal use only):																																																													
Patient's Last Name:		Social Security Number:																																																													
First Name and Middle Name (or initial):		Birthdate (MM/DD/YYYY):																																																													
Address (Street and number):		Age:																																																													
City/Town:		State:																																																													
Home Telephone Number:		Zip code:																																																													
Work Telephone Number:		Gender:																																																													
Patient's Occupation or Setting:		Pregnant? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown																																																													
Date of Onset (MM/DD/YYYY):		Estimated Delivery Date:																																																													
Date of Diagnosis (MM/DD/YYYY):		Health Care Provider:																																																													
Date of Hospitalization (MM/DD/YYYY):		Health Care Facility:																																																													
Date of Death (MM/DD/YYYY):		Address:																																																													
Submitted by:		City:																																																													
Date CMR submitted (MM/DD/YYYY):		Telephone:																																																													
		FAX:																																																													
Hepatitis Diagnostic:		Type of Hepatitis Testing (check all that apply):																																																													
<input type="checkbox"/> Hep A, acute <input type="checkbox"/> Hep B, acute <input type="checkbox"/> Hep B, chronic <input type="checkbox"/> Hep C, acute <input type="checkbox"/> Hep C, chronic <input type="checkbox"/> Hep D <input type="checkbox"/> Other Hepatitis		<table border="1"> <thead> <tr> <th></th> <th>Pos.</th> <th>Neg.</th> <th>Pend.</th> <th>Not Done</th> </tr> </thead> <tbody> <tr> <td>anti-HAV IgM</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>HBeAg</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>anti-HBc (total)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>anti-HBc IgM</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>anti-HBs</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>anti-HCV</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="5">- anti-HCV signal to cut off ratio -</td> </tr> <tr> <td>HCV-PCR</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>anti-Delta</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other test</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>specify</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Pos.	Neg.	Pend.	Not Done	anti-HAV IgM					HBeAg					anti-HBc (total)					anti-HBc IgM					anti-HBs					anti-HCV					- anti-HCV signal to cut off ratio -					HCV-PCR					anti-Delta					Other test					specify				
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<p>DO NOT use this form to report HIV/AIDS, chancroid, chlamydia infections, gonorrhea, non-gonococcal urethritis, pelvic inflammatory disease, syphilis, or tuberculosis.</p> <p>For HIV and AIDS report to the HIV Epidemiology Program. Reporting information and forms are available by phone 213-351-8316 or at www.publichealth.lacounty.gov/hiv/index.htm</p> <p>For Pediatric AIDS: report to the Pediatric HIV/AIDS Reporting Program. Reporting information is available by calling 213-351-7319</p> <p>For Tuberculous report cases and suspected cases to the TB Control Program within 24 hours of identification. Reporting information is available by phone 213-744-6160, or at www.publichealth.lacounty.gov/tb/index.htm Fax reports to: 213-744-9306.</p> <p>For STDs: The STDs that are reportable to the STD Program include: chlamydial infections, syphilis, gonorrhea, chancroid, non-gonococcal urethritis (NGU), and pelvic inflammatory disease. Reporting information is www.publichealth.lacounty.gov/std/index.htm</p>																																																															
REMARKS:																																																															
<p>FAX THIS REPORT TO: 888-397-3778</p> <p>For assistance, please call the Morbidity Unit at 888-397-3963, or mail to Morbidity Unit, 213 N. Figueroa St., #117, Los Angeles, CA 90012.</p> <p>HPM (Rev. 01/01)</p> <p>CHANGE 07/05/06, REVISED 07/08/06</p>																																																															

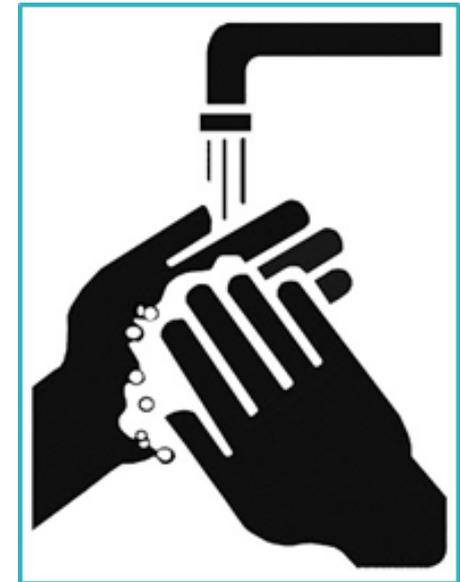


Prevention

- **Post-exposure prophylaxis (PEP)** for contacts of cases
 - Provide PEP within 2 weeks of exposure
 - Vaccination recommended in all persons >1 year old
 - For persons at risk of severe infection add immune globulin
 - **Note: increased dose for IM IG to 0.1 mL/kg**
- **Pre-exposure**
 - Vaccinate persons who are homeless or use drugs
 - First dose highly immunogenic (98% for single Ag vaccine)
 - Free vaccine available from Public Health (see website for time/location of clinics); also covered by Medi-Cal and ADAP
 - Consider vaccination for HCWs and persons who have ongoing close contact with the homeless and drug users
 - Especially those who prepare and serve food

Prevention: Sanitation & Behavior Change

- Emphasize handwashing with soap and water
 - Depending on alcohol concentration & exposure times, hand sanitizer may be less effective
- Environmental cleaning
 - Disinfect bathrooms and surfaces with bleach (1:10 dilution), formulation of quaternary ammonium and HCl (toilet bowl cleaner), or 2% glutaraldehyde
- Reduce risky behaviors
 - Don't share food, drink, eating utensils, smokes, towels, or toothbrushes with other peoples
 - Don't have sex with someone who has hepatitis A



Educational Materials

FAQs
English/Spanish

Hepatitis A

La infección de hepatitis A es causada por un virus (germen) que puede propagarse fácilmente de persona a persona. Puede causar enfermedad hepática (del hígado) que puede ser grave y durar meses.

Hepatitis A

Hepatitis A infection is caused by a virus (germ) that can easily spread from person-to-person. It can cause liver disease that can be severe and last several months. In some cases, people can die because of hepatitis A.

How does Hepatitis A spread?

- Touching objects or eating food that has hepatitis A on them
- Having sex with someone who has hepatitis A
- Sharing needles, pipes or other items that have hepatitis A on them

How can you prevent Hepatitis A?

- Get two shots of Hepatitis A vaccine
- Don't have sex with someone who has hepatitis A
- Use your own towels, toothbrush & utensils
- Don't share food, drinks, or smokes with other people
- Wash hands with soap and water after using the bathroom, and before preparing, serving or eating food

What are the symptoms of Hepatitis A?

Fiebre
 Cansancio
 Náuseas
 Pérdida de apetito
 Ictericidad (amarillamiento de la piel y los ojos)
 Dolor abdominal
 Vómitos
 Orina oscura, heces blancas y diarrea

Call 2-1-1 for more information or to find medical and social services
 Adopted from the County of San Diego Health and Human Services Agency 7/2017

Frequently Asked Questions (FAQ) Hepatitis A

1. What is hepatitis A?

Hepatitis A is a highly contagious (spreads person-to-person) liver disease caused by the hepatitis A virus (germ). Mild cases can last a few weeks while severe cases can last several months.

2. How is hepatitis A spread?

Hepatitis A spreads by putting something in your mouth (object, food, or drink) that has been in contact with the feces (poop) of an infected person. Hepatitis A can be spread by:

- Forgoing to wash your hands after using the bathroom, changing diapers
- Having sexual contact with infected partner(s)
- Consuming food or drink that are contaminated by

3. Who is at risk for hepatitis A?

Anyone can get hepatitis A, but you are at higher risk if you:

- Travel or live in countries where hepatitis A is common
- Live with someone who has hepatitis A
- Use recreational drugs
- Are men who have sex with men
- Have sexual contact with someone who has hepatitis A

4. What are the symptoms of hepatitis A?

Not everyone shows symptoms. If symptoms develop, they appear 2 to 6 weeks after infection. Symptoms can include:

- Fever
- Loss of appetite
- Nausea
- Vomiting
- Stomach pain
- Dark urine (pee)
- Grey stool
- Joint pain
- Yellowing of skin and eyes

5. How is hepatitis A treated?

Treatment includes rest, good nutrition, fluids, and medical monitoring. Some people may need to be hospitalized. No drug or medicine can cure hepatitis A. It's important to see a doctor if you have hepatitis A.

6. How can hepatitis A be prevented?

The best way to prevent hepatitis A is by getting hepatitis A vaccine. A vaccine is given as 2 shots, 6 months apart. The local clinic or doctor. You can also prevent the spread of hepatitis A by:

- Washing hands with soap and warm water
- Before eating or preparing food
- After using the bathroom or changing diapers

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www.publichealth.lacounty.gov

Preguntas frecuentes (FAQ) Hepatitis A

1. ¿Qué es la hepatitis A?

La hepatitis A es una enfermedad del hígado muy contagiosa (se transmite de persona a persona) causada por el virus (germen) de la hepatitis A. Los casos leves pueden durar unas cuantas semanas, mientras que los casos más serios pueden durar varios meses.

2. ¿Cómo se propaga la hepatitis A?

La hepatitis A se propaga cuando una persona pone algo en su boca (objeto, comida o bebida) que ha estado en contacto con las heces (aca) de una persona infectada. La hepatitis A se puede propagar al:

- olvidar lavarse las manos después de ir al baño o de cambiar pañales
- consumir comida o bebidas que están contaminadas con el virus

3. ¿Quiénes están en riesgo de contraer hepatitis A?

Cualquier persona puede contraer hepatitis A, aunque su riesgo es mayor si:

- viaja o vive en países donde la hepatitis A es frecuente
- tiene una enfermedad por transmisión de sangre
- utiliza drogas recreativas
- es un hombre que tiene relaciones sexuales con hombres

4. ¿Cuáles son los síntomas de la hepatitis A?

No todos los casos presentan síntomas. En caso de que se presenten síntomas, normalmente aparecen entre 2 y 6 semanas después de la infección. Algunos síntomas pueden ser:

- fiebre
- cansancio
- pérdida del apetito
- náuseas
- vómito
- dolor estomacal
- orina (pipí) oscura
- heces de color gris
- dolor en las articulaciones
- piel y ojos amarillos

5. ¿Cómo se trata la hepatitis A?

El tratamiento incluye reposo, buena alimentación, líquidos y supervisión médica. Algunas personas pueden requerir hospitalización. No todos los casos presentan síntomas. En caso de que se presenten síntomas, normalmente aparecen entre 2 y 6 semanas después de la infección. Algunos síntomas pueden ser:

6. ¿Cómo se puede prevenir la hepatitis A?

La mejor manera de prevenir la hepatitis A es vacunándose. La vacuna contra la hepatitis A consiste en 2 aplicaciones con 6 meses de separación. La vacuna es segura y efectiva. Visite al consultorio de su médico o llame al 2-1-1 para localizar un médico o clínica local. También puede prevenir la transmisión de la hepatitis A lavándose las manos con jabón y agua caliente:

- antes de comer o preparar alimentos
- Después de ir al baño o cambiar pañales

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www.publichealth.lacounty.gov

¿Quién debe vacunarse?
 • todos los niños de 1 año de edad
 • personas que viajan a países donde la hepatitis A es frecuente
 • familias o cuidadores de niños infectados de países donde la hepatitis A es frecuente
 • hombres que tienen relaciones sexuales con hombres
 • personas que utilizan drogas recreativas
 • personas con infecciones hepáticas crónicas o con hepatitis B o C
 • personas con problemas en las heces de coagulación

Para obtener más información:
 Departamento de Salud Pública del Condado de Los Angeles
<http://www.publichealth.lacounty.gov/acd/Diseases/HepA.htm>
 Departamento de Salud Pública de California
<http://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Imz.aspx>
 Centros para el Control y la Prevención de Enfermedades (CDC, por sus siglas en inglés)
<http://www.cdc.gov/hepatitis/hav/hav.htm>

Departamento de Salud Pública del Condado de Los Angeles
 www.publichealth.lacounty.gov
 CDPH-ACDC-0019-02-03/10/17

Informational Third-Sheets
English/Spanish