



# Hepatitis A Update

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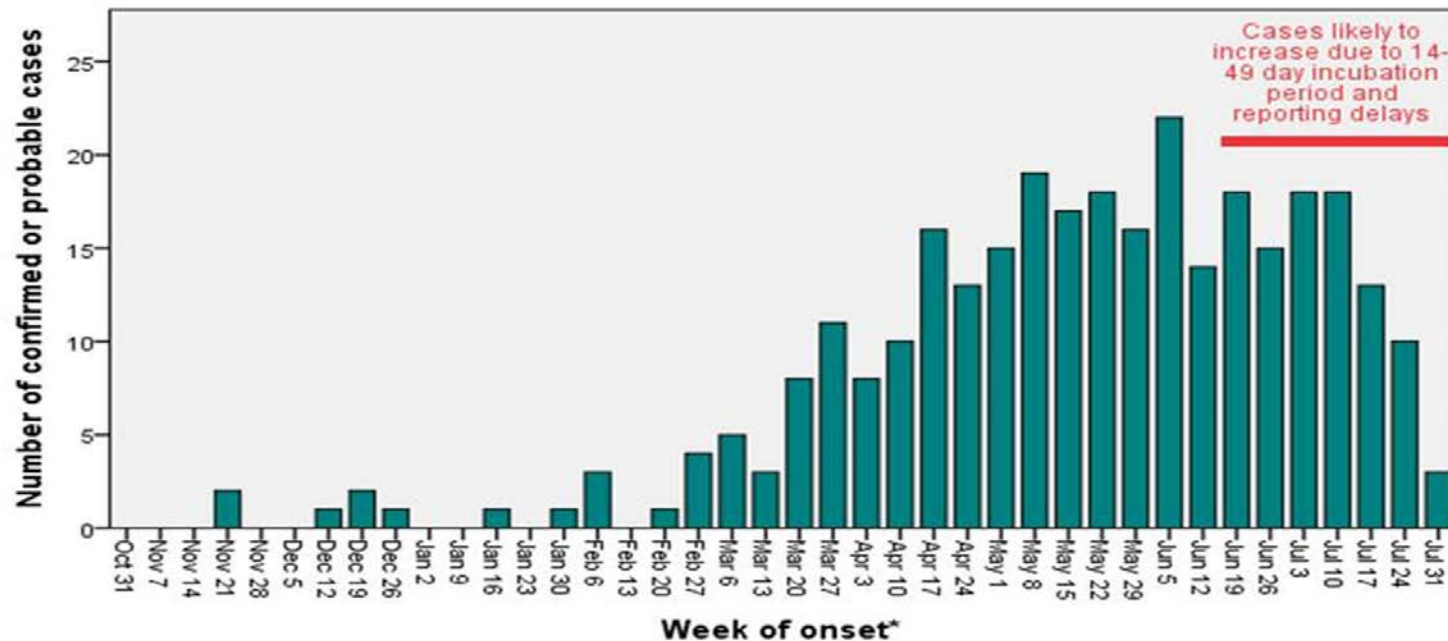
# San Diego Hepatitis A Outbreak

- 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:	Ethnicity (check one): <input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic / Non-Latino																																																													
First Name and Middle Name (or initial):	Birthdate (MM/DD/YYYY):	Age:	Race (check one):																																																												
Address (Street and number):		City/Town:	<input type="checkbox"/> White <input type="checkbox"/> African American / Black <input type="checkbox"/> Native American / Alaskan Native <input type="checkbox"/> Other <input type="checkbox"/> Asian / Pacific Islander <input type="checkbox"/> Asian-Indian <input type="checkbox"/> Japanese <input type="checkbox"/> Cambodian <input type="checkbox"/> Korean <input type="checkbox"/> Chinese <input type="checkbox"/> Laotian <input type="checkbox"/> Filipino <input type="checkbox"/> Samoan <input type="checkbox"/> Hawaiian																																																												
Home Telephone Number:	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female	Pregnant? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Risk Factors / Suspected Exposure Type: (check all that apply)																																																												
Work Telephone Number:	Estimated Delivery Date:	Patient's Occupation or Setting: <input type="checkbox"/> Day Care <input type="checkbox"/> Correctional Facility <input type="checkbox"/> Food Service (Explain: _____) <input type="checkbox"/> Health Care <input type="checkbox"/> School <input type="checkbox"/> Other (Explain: _____)	<input type="checkbox"/> Blood transfusion <input type="checkbox"/> Needle or blood exposure <input type="checkbox"/> Child care <input type="checkbox"/> Recreational water exposure <input type="checkbox"/> Food / drink <input type="checkbox"/> Foreign travel <input type="checkbox"/> Sexual activity <input type="checkbox"/> Household exposure <input type="checkbox"/> Unknown <input type="checkbox"/> Other _____																																																												
Date of Onset (MM/DD/YYYY):	Health Care Provider:	Date of Diagnosis (MM/DD/YYYY):	Type of diagnostic specimen: (check all that apply)																																																												
Date of Hospitalization (MM/DD/YYYY):	Health Care Facility:	Date of Death (MM/DD/YYYY):	<input type="checkbox"/> Blood <input type="checkbox"/> CSF <input type="checkbox"/> Stool <input type="checkbox"/> Urine <input type="checkbox"/> Clinical <input type="checkbox"/> No test <input type="checkbox"/> Other _____																																																												
Date of Death (MM/DD/YYYY):	Address:	Submitted by:	<p><b>DO NOT</b> 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 <a href="http://www.publichealth.lacounty.gov/hiv/index.htm">www.publichealth.lacounty.gov/hiv/index.htm</a></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 <a href="http://www.publichealth.lacounty.gov/tb/index.htm">www.publichealth.lacounty.gov/tb/index.htm</a> 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 <a href="http://www.publichealth.lacounty.gov/std/index.htm">www.publichealth.lacounty.gov/std/index.htm</a></p>																																																												
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# 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 to take drugs

#### 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 7/01/17

## 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 drinks 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
- Grey stools
- Joint pain
- Yellowing of the 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 is 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

Los Angeles County Department of Public Health  
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 (excremento) 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
- tiene contacto sexual con alguien que tiene hepatitis A

### 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. La mayoría de las personas que contraen hepatitis A se recuperan completamente y no presentan daño permanente en el hígado. Es importante acudir a un médico si presenta síntomas de la hepatitis A.

### 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

**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

Informational Third-Sheets  
English/Spanish