

Acute Hepatitis A Outbreak: An Update

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Kentucky Public Health
Prevent. Promote. Protect.



Disclosures

- Jonathan Ballard MD has no financial relationships with commercial interests to disclose.



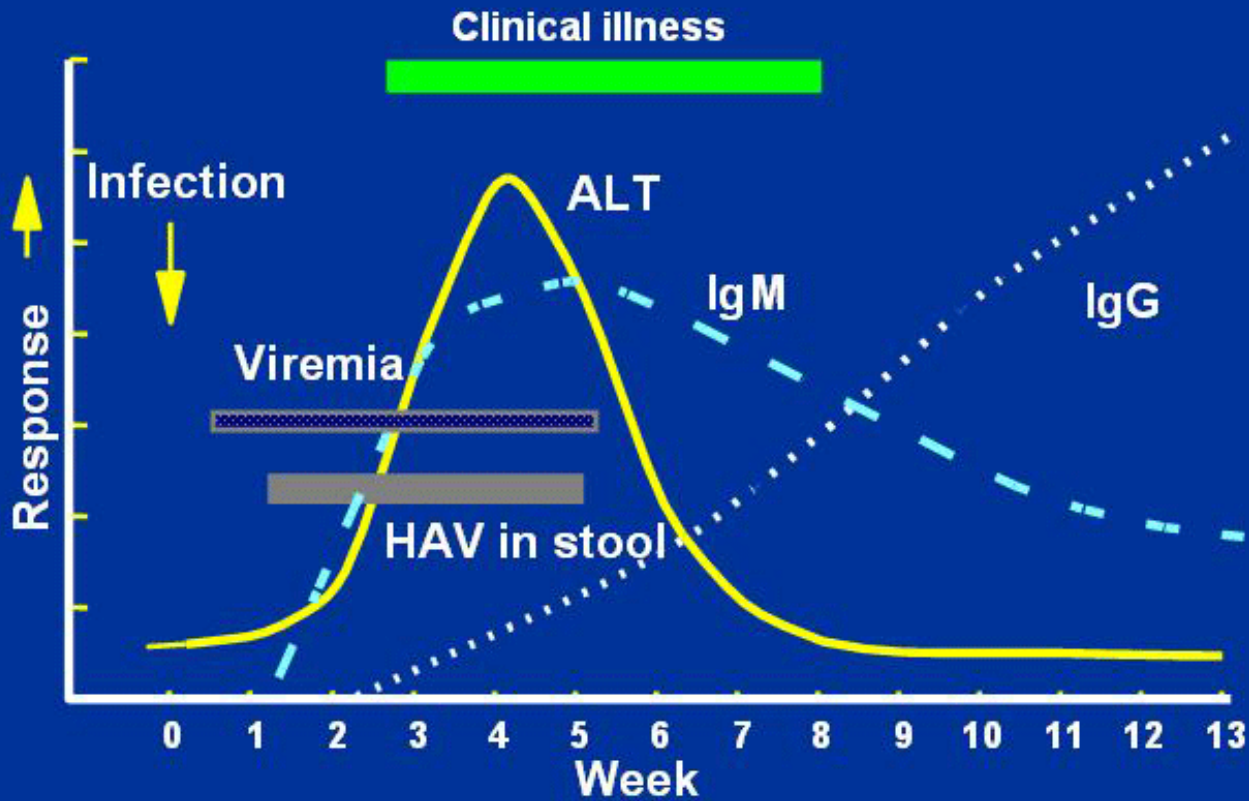
Acute Hepatitis A Outbreak

- Multi-County Outbreak in Kentucky
- Declared on November 21st, 2017
- Initially 31 Cases statewide in 2017
(Average KY cases – 20 per year)
- Majority of Cases in Jefferson County

What is Hepatitis A?

- Acute Hepatitis A: Acute illness caused by Hepatitis A virus with 1) discrete onset of symptoms (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain) and 2) jaundice, or elevated serum alanine aminotransferase (ALT) or aspartate aminotransferase (AST) levels.
- **Case Criteria**
Immunoglobulin M (IgM) antibody positive to hepatitis A virus or “Epi-linked” to know Hep A case with acute hepatitis diagnosis
- **Primarily Fecal-Oral Mode of Transmission**

EVENTS IN HEPATITIS A VIRUS INFECTION



Characteristics of Acute Hepatitis A Infections

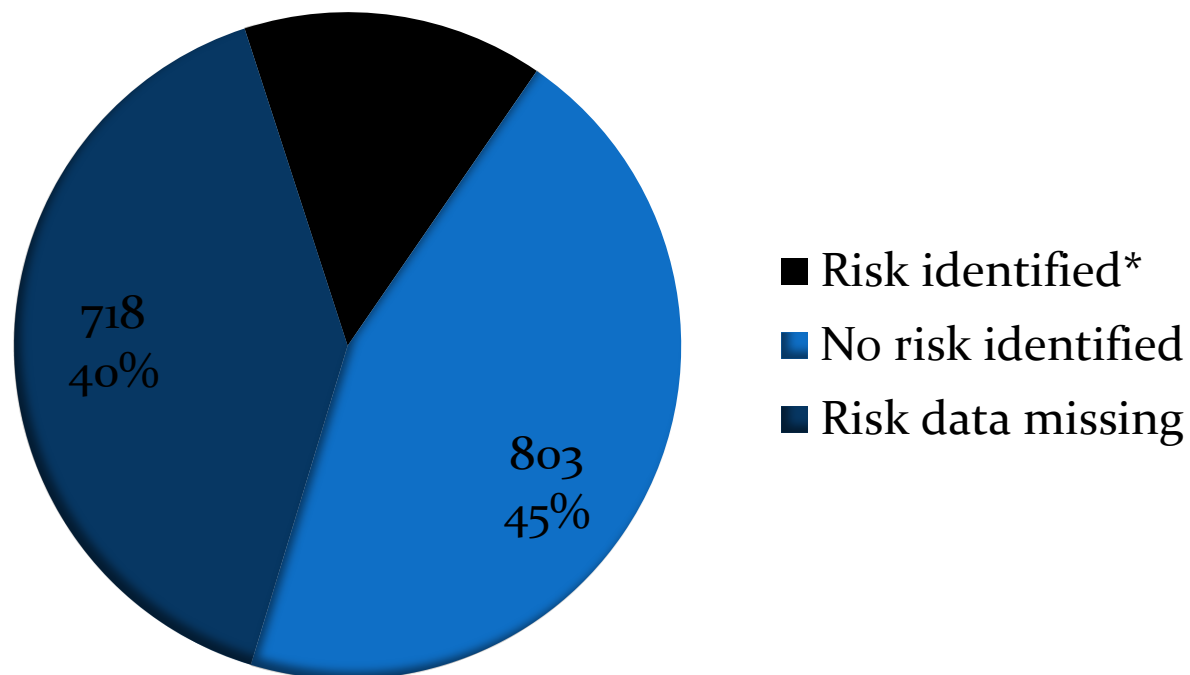
- Fever, jaundice, abdominal pain, vomiting, fatigue, dark urine, grey-colored stools
- About one-half of acute hepatitis A cases reported to CDC required hospitalization
- Death as the result of hepatitis A was reported in about 1%
(1 person out of every 100 persons infected)

Source: CDC Surveillance for Viral Hepatitis – United States, 2015.

<https://www.cdc.gov/hepatitis/statistics/2015surveillance/commentary.htm>

Accessed on 12/3/17.

Figure 1: Availability of risk exposures/behaviors associated with acute hepatitis A — United States, 2013



* Includes case reports indicating the presence of at least one of the following risks 2–6 weeks prior to onset of acute, symptomatic hepatitis A: 1) having traveled to hepatitis A-endemic regions of Mexico, South/Central America, Africa, Asia/South Pacific, or the Middle East; 2) having sexual/household or other contact with suspected/confirmed hepatitis A patient; 3) being a child/employee in day care center/nursery/preschool or having had contact with such persons; 4) being involved in a foodborne/waterborne outbreak; 5) being a man who has sex with men; and 6) using injection drugs.

Source: National Notifiable Diseases Surveillance System (NNDSS)

Risk Factors for Acute Hepatitis A

- Recent travel to or live in a country where the virus is common
- Men who have sex with men
- Drug Use (Injection and Non-Injection Drug Use)
- Close contact or sexual contact with someone with acute hepatitis A
- Clotting disorder such as hemophilia
- Homelessness

Sources:

CDC Hepatitis A Questions and Answers for Health Professionals

<https://www.cdc.gov/hepatitis/hav/havfaq.htm>

Accessed on 12/3/17.

CDC 2017 – Outbreaks of hepatitis A in multiple states among people who are homeless and people who use drugs

<https://www.cdc.gov/hepatitis/outbreaks/2017March-HepatitisA.htm>

Accessed on 12/3/17.

2017 Acute Hepatitis A Outbreaks

- [California](#)
- Case Count (as of November 10): 649
- Hospitalizations: 417
- Deaths: 21

- [Michigan](#)
- Case Count (as of November 15): 509
- Hospitalizations: 426
- Deaths: 20

- [Utah](#)
- Case Count (as of November 13): 75
- Hospitalizations: 44
- Deaths: 0

Source: CDC 2017 – Outbreaks of hepatitis A in multiple states among people who are homeless and people who use drugs.

<https://www.cdc.gov/hepatitis/outbreaks/2017March-HepatitisA.htm>

Accessed on 12/3/17

2017 Kentucky Acute Hepatitis A Outbreak

County of Residence	Total (count)	Percentage (%)
Jefferson	32	69.6
Anderson	1	2.2
Barren	1	2.2
Bullitt	1	2.2
Fayette	1	2.2
Christian	1	2.2
Hardin	2	4.3
Henry	1	2.2
Hopkins	1	2.2
Leslie	1	2.2
Madison	1	2.2
Mason	1	2.2
McCracken	1	2.2
Shelby	1	2.2
KY total	46	100

Case Counts as of 12/6/17.

2017 Kentucky Acute Hepatitis A Outbreak

Age	Total (Count)	Percentage (%)
0-9	2	4.3
10-19	0	0
20-29	5	10.9
30-39	16	34.8
40-49	10	21.7
50-59	4	8.7
60-69	3	6.5
70-79	4	8.7
80-89	2	4.3
90 and above	0	0

Case Counts as of 12/6/17.

2017 Kentucky Acute Hepatitis A Outbreak

Sex	Total (Count)	Percentage (%)
Female	20	43.5
Male	26	56.5

35 Hospitalizations

Risk Factor	Total (count)
Homelessness	15
Interactions with homeless	3
Drug use	22
MSM	3

Case Counts as of 12/6/17.

Genotype Testing: Linkage to Genotypes associated with San Diego California 2017 Outbreak

Testing status	Count
Genotype 1B-CA Cluster A	5
CDC Results Pending	3

DPH 2017 Acute Hepatitis A Outbreak Response

- Declaration of outbreak on 11/21/17
- Partner with Louisville Metro Department of Public Health and Wellness (LMPHW) for response in Jefferson Co.
- Enhanced Surveillance and Supplemental Questionnaires
- Activation of the State Health Operations Center to coordinate response
- Submitted a vaccination plan that enabled CDC to allocate 500 doses of adult Hep A vaccine (317 funded vaccine) for high risk populations
- Communications outreach to at risk population
- Provided written materials to local health departments and other partners about Clinical Advisory, Food Safety Document for Shelters, FAQs for shelters, “WashMe” hand washing posters



KDPH 2017 Acute Hepatitis A Outbreak Response Kentucky Hepatitis Surveillance:

- Communication with Hospitals
- Enhanced Laboratory Testing
- Daily Hepatitis A Outbreak Meetings at KDPH
- Weekly SHOC meetings
- Conference Call with California Department for Public Health
- Weekly Meetings with CDC Division of Viral Hepatitis
- Communication with high risk populations

Vaccination Recommendations

- All Children 1-18 per immunization schedule
School entry requirement starting 7/1/2018
- All High Risk Individuals
 - Men who have sex with men
 - Drug Use (Injection and Non-Injection Drug Use)
 - Homeless
 - Persons traveling to countries with high rates of hepatitis A
 - Persons with Chronic liver disease
- Exposed persons to someone with known Acute Hepatitis A are also recommended to receive Post-Exposure Prophylaxis (PEP)
 - Age-appropriate hepatitis A vaccination and immune globulin (IG)