



Impact of ill Food Handlers during a Hepatitis A outbreak



**County of San Diego, Department of Environmental Health
Food and Housing Division**

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County of San Diego Foodborne Outbreak Team

- ▶ Members: DEH, PHS (EPI), PHL
 - ▶ Dept. Environmental Health (FHD)
 - ▶ Public Health Services (PHS) – “Epi” (epi investigations)
 - ▶ Public Health Lab
- ▶ Constant flow of information
- ▶ Meet often and communicate daily (usually)
- ▶ DEH
 - ▶ Investigations and interactions with food facilities
 - ▶ Food handler removal, clearance



III Food Handler Removal, Investigation

- CA Health and Safety Code
- Food handler removal (restrict or exclude)
 - Confirmed communicable disease
 - DEH (excludes, restricts, clears) upon request by PHS “Epi”
- Investigation at facility
- Confirmed illness
 - Worked while symptomatic
 - Food exposures of interest at their place of work



Hep A Outbreak response & Challenges

- ▶ The outbreak seemed to be P2P
 - ▶ Concern that it could become foodborne

Challenges

- ▶ Lack of disinfection protocol – very little experience
 - ▶ Nothing out there for this, for this industry
- ▶ Confirmed ill food handlers (24 – over course of outbreak)
 - ▶ Very little experience
 - ▶ Years since last HAV food handler!
 - ▶ Public notification possible



San Diego County Solutions

Challenge for DEH: “Lack of disinfection protocol”

Actions:

1. Identified research: adequate chlorine disinfection concentrations
 - ▶ published in 1990 in the Applied and Environmental Microbiology Journal
2. Developed disinfection protocol for permitted facilities
 - ▶ Specific concentration contact time
 - ▶ Important section on vomiting/diarrhea clean up
 - ▶ 6 languages
3. Quickly distributed to over 14,000 food facilities (plus growers/farmers, hazmat, public pools)
 - ▶ Email (Gov dev.), website & during inspections

Sanitation: Disinfection Guide

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County of San Diego Department of Environmental Health 5500 Overland Ave. #100 San Diego, CA 92123 858-505-6814

For more information on Hepatitis A or to report individuals with vomiting, diarrhea or fever associated with food consumption, contact:
 Email: goldemilony.fhd@csdcounty.ca.gov
 Phone: (858) 505-6814
 Website: www.csdcounty.org



HEPATITIS A DISINFECTION GUIDELINES

Hepatitis A is a liver infection caused by the Hepatitis A virus. Highly contagious, the Hepatitis A virus is usually transmitted by the fecal-oral route, either through person-to-person contact or consumption of contaminated food or water. Contamination can occur when infected persons do not wash their hands properly after going to the bathroom and then touch other objects or food items. Surfaces that are frequently touched should be cleaned and sanitized often.

- Toilet Room Surfaces
- Kitchen Surfaces
- Doorknobs
- Recreation Equipment
- Light Switch Plates
- Phones
- Computer Keyboards
- Railings
- High Chairs
- Tables and Chairs
- Wheelchairs and Walkers
- Remote Controls

Effective Disinfection for Surfaces Exposed to Hepatitis A

Chlorine Bleach: Mix and use the chlorine solution promptly. Allow 1 minute of contact time and then rinse with water.

- 5000 ppm 1 and 2/3 cups bleach in 1 gallon water. Use for stainless steel, food/mouth contact items, tile floors, nonporous surfaces, counters, sinks and toilets.

Other Disinfectants:

To determine if a product is effective against Hepatitis A, review the product label or product specification sheet and ensure it states "effective against Hepatitis A" or "effective against Feline Calicivirus". You may also search the product name in the Environmental Protection Agency's registered product database at:

<https://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1>

Specific Cleaning Methods

Wear Gloves and Protect Your Clothing

Hard Surfaces
 Disinfect surface with bleach, or other approved disinfectant, ensuring the correct contact time is being met. If the surface is in a food preparation area, make sure to rinse with water after. For surfaces that are combed or damaged by bleach, use another product that is effective against Hepatitis A.



Steps to Clean Spills of Vomit or Feces

- Put on personal protective equipment, including two sets of gloves, masks and gowns.
- Block-off area immediately.
- Clean up visible debris using disposable absorbent material (paper towels or other type of disposable cloths) and minimize aerosols.
- Discard soiled items carefully in an impervious plastic bag.
- Thoroughly clean affected area
- Disinfect area and objects surrounding the contamination with an appropriate disinfectant effective against Hepatitis A. See box to the left "Effective Disinfectants" for 5000 ppm sanitizing solution.
- Take off outer set of gloves, gown and mask, in that order, and discard before exiting contaminated clean-up area.
- Place discarded PPE in an impervious plastic bag.
- Wearing the inner set of gloves, transport bag to a secure trash container; do not allow the bag to come into contact with clothing.
- Always wash your hands after handling any contaminated material, trash or waste.

Proper Handling

- Use chemicals in well-ventilated areas.
- Avoid contact between incompatible chemicals.
- Prevent chemical contact with food during cleaning.
- Handle contaminated material as little as possible and with minimal agitation to reduce aerosols.
- Manage waste safely and dispose in a secure trash container.

Preventing the Spread of Illness

- ✓ All food employees must practice diligent handwashing and good personal hygiene (see below for handwashing procedures).
- ✓ Use utensils or gloves to eliminate bare hand contact with ready-to-eat food.
- ✓ Thoroughly and continuously disinfect the facility and food areas using the guidelines at the reverse of this document.

Handwashing

- ✓ Food employees shall thoroughly wash their hands and arms with soap and warm water for at least 20 seconds; thoroughly rinse with clean running water and properly dry their hands and arms.
- ✓ Ensure handwashing signs are posted in the appropriate locations.

Employees shall wash their hands in all of the following instances:

- Immediately before engaging in food preparations, including working with non-prepackaged food, clean equipment and utensils, and unwrapped single-use food containers and utensils.
- After touching bare human body parts other than clean hands and clean, exposed portions of arms.
- After using the toilet room.
- After caring for, or handling any animal allowed in a food facility.
- After coughing, sneezing, using a handkerchief or disposable tissue, using tobacco, eating or drinking.
- After handling soiled equipment or utensils.
- Before putting on disposable gloves to start working with food.
- During food preparation, as often as necessary to remove dirt and contamination; and when changing tasks to prevent cross-contamination.
- When switching between working with raw food and working with ready-to-eat food.
- Before dispensing or serving food, or handling clean tableware and serving utensils in the food service area.
- After engaging in other activities that contaminate hands.

Employee Health Guidelines

All food employees must be knowledgeable of the relationship between personal health, hygiene and food safety. Information on this topic can be found in the California Retail Food Code, Chapter 3 Article 3 – Employee Health.

The Employees are Responsible for Notifying the Person in Charge

- Notify the Person in Charge if you have been diagnosed with a Hepatitis A infection. Be advised that employees are also required to report the following: Salmonella, Shigella, ~~Enterobacteriaceae~~ or ~~shiga~~ toxin-producing E. coli, Norovirus, and Entamoeba ~~histolytica~~.
- Remember, you should not work with food or utensils if you are sick with acute gastrointestinal illnesses. **Acute gastrointestinal illness is diarrhea, either alone or with vomiting, fever or abdominal cramps.**

The Person in Charge is Responsible for Meeting the Following Requirements

- **REPORT** to the County of San Diego - Department of Environmental Health (DEH) when a food employee is diagnosed with Hepatitis A. Call (858) 505-6814. Remember that the following illnesses must also be reported: Salmonella, Shigella, ~~Enterobacteriaceae~~ or ~~shiga~~ toxin-producing E. coli, Norovirus, and Entamoeba ~~histolytica~~.
- **REPORT** to the DEH if **two or more people** are sick with acute gastrointestinal illness; call (858) 505-6814. **Acute gastrointestinal illness is diarrhea, either alone or with vomiting, fever or abdominal cramps.**
- **EXCLUDE** a food employee from the food facility if diagnosed with Salmonella, Hepatitis A, Norovirus, Shigella, ~~Enterobacteriaceae~~ or ~~shiga~~ toxin-producing E. coli, or Entamoeba ~~histolytica~~. Only the County of San Diego DEH or the Health and Human Services Agency can clear an excluded employee to return to work.
- **RESTRICT** a food employee from working with exposed food, clean equipment, clean linens, clean utensils and unwrapped single-service articles if food employee is suffering from symptoms of acute gastrointestinal illness or experiencing persistent coughing, sneezing or nasal discharges. Restrictions can be removed by the Person in Charge when the food employee states they no longer have symptoms of illness.

- English
- Spanish
- Farsi
- Tagalog
- Vietnamese
- Arabic

High PPM:
 *highly impacted public facing surfaces for restaurants in impacted areas
 *ill FH



San Diego County Solutions

- ▶ Challenge: Confirmed ill food handlers
 - ▶ 24 over outbreak

Actions:

- ▶ PHS: All other food handlers in each facility offered vaccination – event usually at facility
- ▶ Developed Protocol – Public notification helpful?
 - ▶ Used known algorithm (thank you Dr. M!)
 - ▶ Developed new Field questionnaire
 - ▶ Answered Algorithm questions and others
 - ▶ completeness and consistency
 - ▶ DEH & PHS met to discuss possible action
 - ▶ All within same day

Public Notification – The Algorithm used

IgM antibodies
Vax w/in 2 weeks of exp?
Riskier Foods
Repeated exposures?

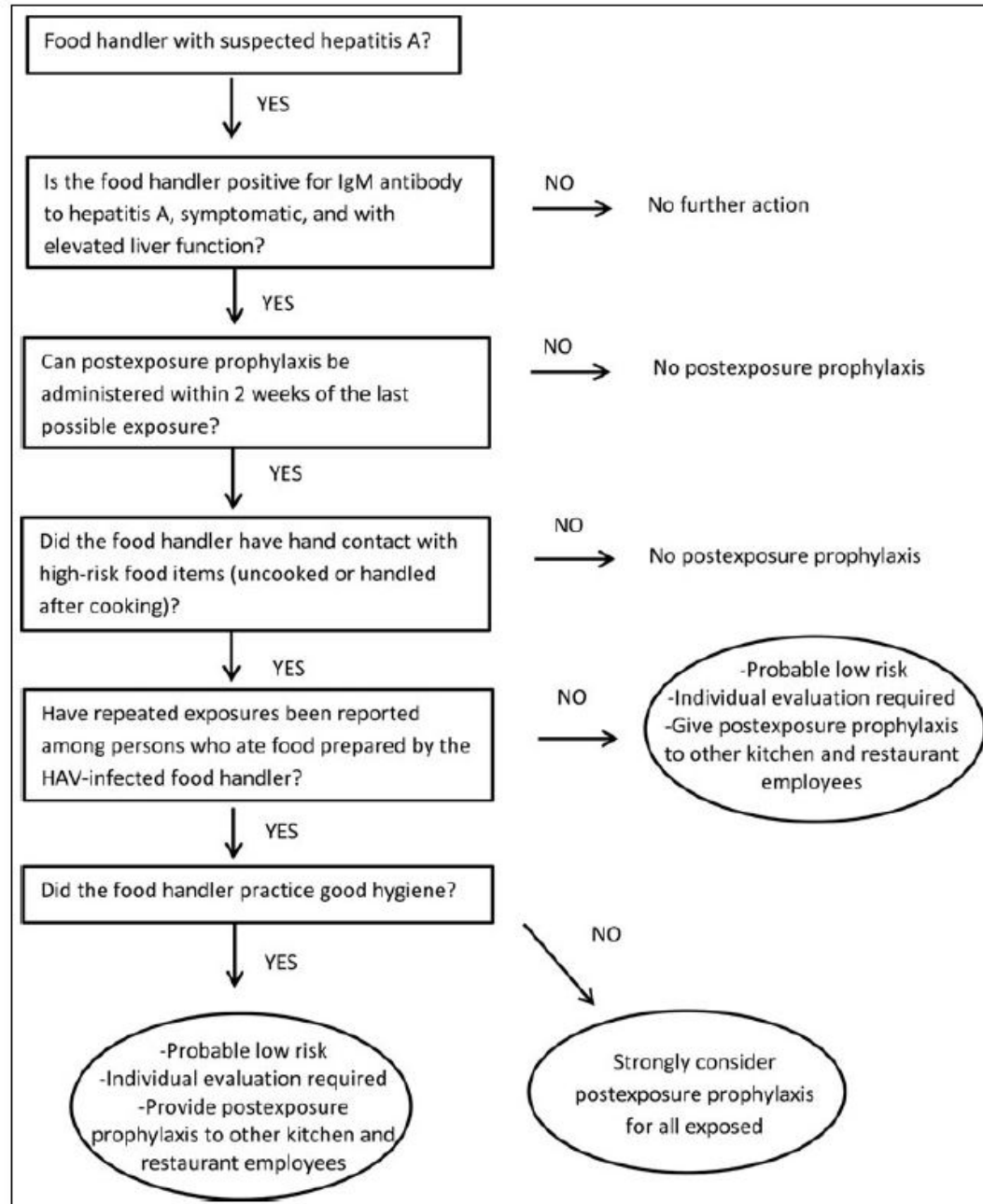


Figure: Algorithm used by NYC Dept. of Health and Mental Health Hygiene to Determine the Need for Hepatitis A Virus Postexposure Prophylaxis of Restaurant Patrons.

Article: “Hepatitis A Cases Among Food Handlers: A Local Health Department Response – New York City, 2013”, Ridpath et al, Journal of Public Health Management and Practice, Vol. 23, No. 6 (November/December 2017), Adapted from Fiore et al and Carl et al.



Field Data Collected

- Contact information for operator
- Obtain employee's **work schedule**
- List all **work duties** of ill employee
- Are **gloves used** in facility? By this employee?
- Is proper **handwashing** observed during inspection?
- List any major violations observed:
- Is food handler training up-to-date?
- Any **other ill food handlers** in last 30 days? If so, names, dates/times worked
- Any reports of **customers illness**?
- Number of daily meals sold per day of week
- Estimated # of repeat customers



Field Data Collected

Restroom specific

- ▶ Do employees **share restroom with customers**?
- ▶ Who is in charge of cleaning the restroom?
- ▶ How often is restroom cleaned and/or stocked?
- ▶ What sanitizer is used when cleaning the restroom?
- ▶ Are procedures and sanitizer sufficient to combat Hep A?
- ▶ If PPE is used to clean restroom, list type:

Public Notification

Hepatitis A Case Reported at Pacific Beach Restaurant



By [Tom Christensen](#), County of San Diego Communications Office

Sep. 15, 2017 | 10:11 AM

San Diego County health officials are advising the public that anyone who may have eaten or had beverages at the World Famous restaurant in Pacific Beach on seven specific dates and times that they may have been exposed to a person with the hepatitis A virus.

Afterwards: confirmed case 1 of several exposures...



Questions?

Contact:

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Desk phone: 858-505-6814