Module 2 – How do you Recognize a Foodborne Illness?

Module 2
How Do You Recognize a Foodborne Illness?

Module 2 – Learning Objectives

- Describe how to recognize potential foodborne illnesses and outbreaks
- Recognize situations that trigger immediate action
- Create and maintain an illness and product complaint log
- Compare short and long term liability, risks and costs associated with a foodborne illness outbreak or recall
Module 2 – How do you Recognize a Foodborne Illness?

Definitions

- **Foodborne Illness**
  - Illness transmitted to people by food

- **Foodborne Outbreak**
  - Incident in which two or more people experience the same illness after eating the same food

Also warrants further investigation:

- Single case of botulism
- Mushroom poisoning
- Ciguatera or paralytic shellfish poisoning
- Rare disease related to ingestion of food
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Most Commonly Implicated Sources

- Seafood
- Eggs and egg dishes
- Fresh fruits and vegetables
- Beef
- Poultry

New Food Vehicles

Identified in multistate outbreaks since 2006:

- bagged spinach
- carrot juice
- peanut butter
- broccoli powder on snack food
- pot pies/frozen meals
- canned chili
- hot peppers
- raw cookie dough
- frozen berries

National Foodborne Outbreak Surveillance System
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Module Objective #1

Describe how to recognize potential foodborne illnesses and outbreaks

Outbreak Investigation Flow

Disease detection

Need to Investigate?

YES

Outbreak Determination

YES

Outbreak & Epidemiologic Investigation

Laboratory Guidance

Concluding Actions
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How Does it All Start?

- Phone calls
- Comment cards
- Recall notice
- Hotline

Food establishment receives communications from -
Customers, Public Health Agency, Suppliers

Sick persons
Industry

- Public Health Agency notified
- Lab
- Medical facility

Symptoms of Potential Foodborne Illness

Generalized symptoms of infection
- Fever
- Vomiting
- Diarrhea
- Chills, aches
- Nausea
- Headache
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Sources of Contamination

• Contamination: Presence of harmful substances in food
• 3 types of hazards
  • Biological: microorganisms
  • Chemical: pesticides
  • Physical: glass or metal
• Hazards: Can be from both approved & unapproved sources

Pathogens

Microorganisms that cause disease
  • Bacteria
  • Viruses
  • Parasites
  • Molds (fungi)
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Transmission of Pathogens

Transmitted to people from many sources

- Food
- Water/Ice
- People
- Objects

Potential Sources of Illness

- Contaminated equipment
- Poor personal hygiene
- Improper holding temperatures
- Food from unapproved sources
- Improper cooking, cooling
- Infected worker
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Module Objective #2

Recognize situations that trigger immediate action

Reporting Triggers

- 2 or more illnesses associated with the same food
- Illness in a high risk population identified
- Complaints about different products from same manufacturing/retail facility

ACTION: Notify and cooperate with local and state public health agency
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Module Objective #3

Create and maintain an illness and product complaint log

Purpose of Complaint Log

Record complaints in an organized manner

- Binder
- Standard complaint form
- Accessible, secure location

Be aware of legal issues:
Internal & HIPAA
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In Your Establishment…

• Who takes complaints?
• Do you have a standard form?
• Where do the forms go?
• Does anyone review the information for triggers?

If not, STOP here…
let’s chat!
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Industry’s Role…at this point

- Have procedures to collect and share information—both within establishment, the public health agency and others
- Notify and cooperate with appropriate public health agency

Public Health Agency Role

Determines potential public health risk and identifies:

- Times, place and dates of exposure
- Populations that were exposed to the food involved (Population at risk)
- Cases that require immediate response
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Public Health Agency Activities

- Conduct interviews
- Collect food histories (everything ingested over the last 72 hours not just last meal)
- Attempt to gather samples of suspect food
- Follow up on information and other possible ill people

Module Objective #4

Compare short and long term liability, risks and costs associated with a foodborne illness outbreak or recall
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Regulations in Suspected Outbreak

FDA 2013 Food Code

“permit holder shall IMMEDIATELY discontinue operations and notify regulatory authority of onset of an apparent foodborne illness outbreak”

Short / Long Term Liability Risks

- Increased fees- legal, insurance, consultants
- Increased surveillance by regulatory authority, stricter health inspections
- Possible permanent closure of business
- Loss of customers
- Loss of sales
- Loss of reputation
Module 2 – How do you Recognize a Foodborne Illness?

Summary - Module 2

<table>
<thead>
<tr>
<th>Role</th>
<th>Recognizing a Foodborne Illness</th>
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<tbody>
<tr>
<td>Epidemiology</td>
<td>Verifies diagnosis and determines whether cases are associated; searches for additional cases and conducts interviews; determines whether an outbreak has occurred.</td>
</tr>
<tr>
<td>Laboratory</td>
<td>Helps verify diagnosis and determine whether cases are associated.</td>
</tr>
<tr>
<td>EH/Food Regulatory</td>
<td>Helps verify diagnosis and determine whether cases are associated; helps search for additional cases; conducts facility interviews and collects samples; can conduct case interviews.</td>
</tr>
<tr>
<td>Industry</td>
<td>Is aware of situations that trigger immediate action; have procedures in place to collect and share information; will notify and consult with appropriate public health agency; initiate appropriate steps if an outbreak is suspected; work cooperatively with the public health agency.</td>
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Module 2 Review

QUESTIONS???
Module 2 – Exercise

“Triggers”

Module 2 – Exercise Instructions

- Review the situations
- Would you call the Health Department?
  - Why or Why Not?
  - When would you call?
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To Call or Not to Call... *the Health Department*

Would you call?   YES ☐   NO ☐  Other action?

**Situation Triggers**

1. Two separate customers report they had diarrhea after eating at your cafe last night.
2. A customer returns a package of vegetables to your market, after discovering bubbles and discolored product inside after opening.
3. Three of your employees come to work sick with symptoms of vomiting and fever.
4. Family of four reports they felt ill after take-out from your restaurant several days ago.
5. There is a national recall of brand of bagged salad greens that you serve in your facility.
6. Your chef has called in sick diagnosed with Vibrio, from eating raw oysters elsewhere.
7. Your manager has recently been diagnosed with Norovirus, after returning from a cruise.
8. A prep cook calls you to tell you that she has just been diagnosed with Hepatitis A.
9. A customer begins vomiting violently on the floor of your restaurant during a dinner rush.
10. An elderly resident of an assisted living facility becomes ill after eating at their annual picnic, serving over 50 persons.

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Module 2 - Exercise Summary

1. Complaints are being recorded in an organized manner.
2. Complaints are being reviewed for “triggers” on a routine basis by a designated person.
3. If a potential issue is identified, follow appropriate chain of command.
4. Contact the Health Department if needed.