

Outbreak Investigation

Clinical and Academic Processes

Donna Dyke, MA, RN

Assistant Commissioner, Westchester Department of Health

Joan Arnold, PhD, RN

Professor, The College of New Rochelle School of Nursing

Public Health Approaches

From the Practice Perspective

- Communication within the Department infrastructure
- Communication with other agencies and the State DOH
- Knowledge of and following protocol
- Rapid response and critical decision making
- Coordination among divisions and departments
- Team approach

From the Academic Perspective

- Thinking Skills
 - Understanding official agencies, their responsibilities and the chain of command
 - Role of local, state, and federal public health agencies
 - Partnerships/teams
 - Epidemiology and disease process
 - Communication
 - Critical decision making
 - Resources
 - Reporting systems

Hepatitis A in a Food Handler

Reportable Disease

- NYS Sanitary Code
10NYCRR 2.10
- Communicable disease must be reported within 24 hours of diagnosis
- Certain diseases must be reported immediately, like Hepatitis A in a food handler
- Electronic and/or telephone reporting , disease dependent

Community Dimensions of Practice

- Epidemiologic and clinical knowledge of the disease process
- Implications for transmission
- Community safety concerns
- Presentation in adults and children

Hepatitis A in a Food Handler

Report Received

- Index Case contacted to assess risk factors
 - Food handler and their household members
 - Child under 5 years of age
 - Day care worker
 - Children attending day care or preschool
- Guided Interview of Index Case
 - Expanding contact investigation
 - Telephone or Site Visit
 - Dealing with gaps in information and pursuing leads for additional information

Communication Skills

- Language of communicable disease investigation
 - Index case
 - Case contacts
 - Risk profile
- Interview skills
- Decision making skills related to expanding the case investigation

Hepatitis A in a Food Handler

DOH Disease-specific Protocols

- Contact Investigation
 - Locate and follow-up all persons potentially exposed during the infectious period
 - Time line for exposure
 - Documentation – line listing to ascertain pattern of spread
- Assessment of contacts for signs and symptoms of disease
- Referral to PCP or DOH for immunization
- Follow-up on all contacts to identify need for expanded contact investigation and to assure disease is contained

Analytic Assessment Skills

- Apply knowledge of disease process to contacts
 - Infectious period of disease
 - Incubation period
 - Mode of transmission
 - Treatment approaches
 - Protection measures
- Documentation guidelines

Hepatitis A in a Food Handler

Reporting to NYS DOH

- Initial electronic report
- Follow-up electronic reports
- Implications at State level for recognizing other outbreaks and for coordinating with Centers for Disease Control and Prevention for disease DNA typing
- Feedback from NYS DOH with key information affecting outbreak investigation

Planning & Management Skills

- Information technology skills
- Discerning key information for reporting
- Understanding clinical patterns and departures in these patterns
- Considering relationship of health agencies and their responsibilities; local, state, national, global

Hepatitis A in a Food Handler

Dealing with the Public

- Education about disease process and protection
- Preventing community panic
- Disseminating accurate information to the press, television, radio and via Web site
- Working with Public Health Information Department
- Responding to VIPs

Cultural Competency Skills

- Public speaking
- Compiling information for press releases
- Professional demeanor

Hepatitis A in a Food Handler

Further Action

- Critical analysis of line listing and implications for broader community health
- Officials from various DOH areas monitoring and making key decisions – may involve all three levels of public health agencies
- Determination of need for wide scale immunization

Leadership

- Critical thinking skills
- Communication skills
- Need for rapid response
- Working as a team
- Forming partnerships
- Understanding the chain of command

Hepatitis A in a Food Handler

Retrospective View

- Analysis of agency response
- Lessons learned
- Implications for future practice
- Ongoing education and public awareness
- Policy implications
- Revisit Sanitary Codes for change

Policy Development & Financial Planning

- Outcome assessment
- Health policy
- Cost analysis
- Implications for nursing practice in public health