

Investigative Guidelines

Pertussis

Tularemia

Anthrax

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Objectives

- Identify reasons why the public health department investigates diseases
- Become familiar with location and structure of Investigative Guidelines
- Describe ways Investigative Guidelines can be used for disease prevention
- Practice using the Investigative Guidelines to determine case status

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INVESTIGATION OF DISEASES

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Why Do We Investigate?

- Protect contacts
- Identify risk factors
- Detect outbreaks
- Monitor epidemiologic trends
- Guide public health programs
- Facilitate public health research



Smallpox vaccination, 1881

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Case Investigation

- Who is affected?
- What is the agent?
- When did the disease occur?
- Where did the cases occur?
- How did they get infected?

ANIMALCULE IN WATER.



Water under microscope, 1846

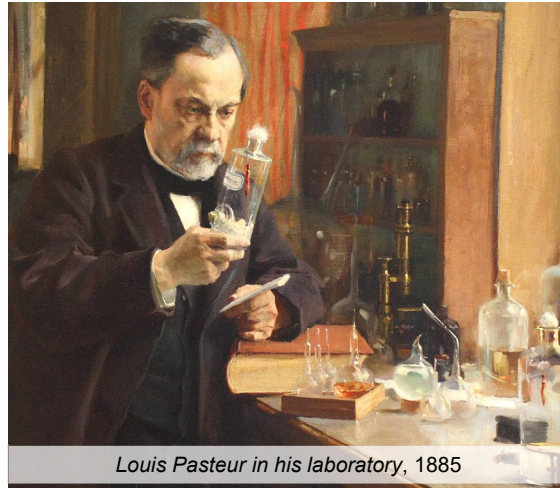
Case Investigation: Who

- Demographics
 - Name, address, sex, age
 - Occupation/worksite
 - Need for exclusion?
 - Day care
 - School
 - Food handler
 - Healthcare worker



Case Investigation: What

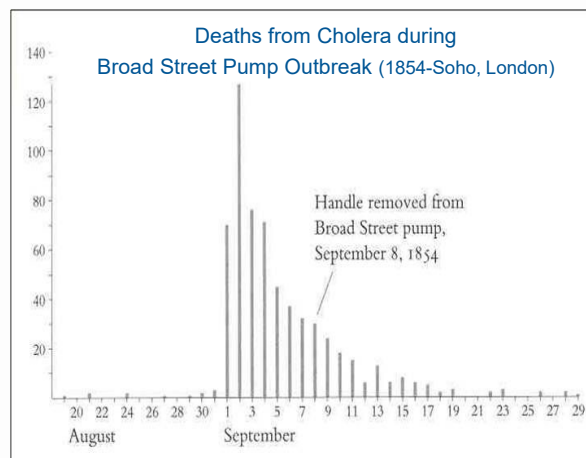
- Basis for Diagnosis
 - Verify the diagnosis
 - Clinical data
 - Lab tests
 - Epidemiological linkage



Louis Pasteur in his laboratory, 1885

Case Investigation: When

- Infectious Timeline
 - **Exposure period:** incubation period for known agents
 - **Communicable period:** period after exposure when disease can be transmitted
 - **Epidemic Curve:** number of cases by illness onset



Case Investigation: Where and Why

Possible Sources of Infection

- Disease distribution
 - Place of residence
 - Place of occupation
 - Activity sites
- Possible exposures during incubation period
 - Travel history
 - Environmental exposures
 - Occupational exposures
 - Other, based on agent



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Case Investigation: Contact Management

- Communicable period
 - Household roster
 - Other “close” contacts
- Screening for disease
- Prophylaxis, if necessary
- Education



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Investigative Guidelines

Tularemia

Pertussis

Anthrax



INVESTIGATIVE GUIDELINES



Have the Investigative Guidelines handy for review

- [Shigellosis](#)
- [Meningococcal Disease](#)
- [Rabies and Animal Bites](#)

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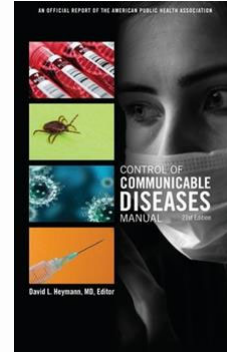
Because each disease is unique, ACDP has developed **Investigative Guidelines** for most of the reportable diseases

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Investigative Guidelines: Overview

A labor of love; they combine:

- Basics of disease
(like in a textbook)
- Public health elements
(*cf.*, *Control of Communicable Diseases Manual*)
- Pertinent Oregon law
(e.g., exclusion and testing requirements)



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Part 1: Disease Reporting

- Purpose of Reporting and Surveillance
- Lab and Physician Reporting Requirements
- Local Health Department Reporting and Follow-up Responsibilities



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Part 2: The Disease and Its Epidemiology

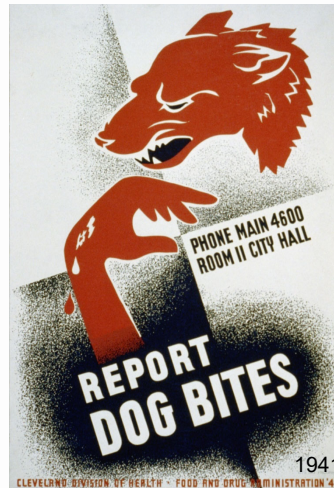
- Etiologic Agent
- Description of Illness
- Reservoirs
- Modes of Transmission
- Incubation Period
- Period of Communicability
- Treatment



*Fossilized cyanobacteria,
Precambrian period*

Part 3: Case Definition, Diagnosis, and Laboratory Service

- Confirmed Case Definition
- Presumptive Case Definition
- Suspect Case Definition
- Services Available at OSPHL



Part 4: Routine Case Investigation

- Determine Source of Infection
- Identify Potentially Exposed Persons
- Environmental Evaluation



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Part 5: Controlling Further Spread

- Education
- Isolation and Work or Day-care Restrictions
- Follow-Up of Cases
- Protection of Contacts
- Environmental Measures



~1940

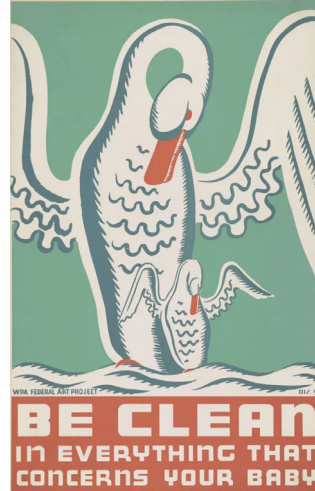
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Part 6: Managing Special Situations

- Each Investigative Guideline has recommendations specific for that disease
- **FOR EXAMPLE:** Meningococcal Disease
 - Daycare Association
 - Determining outbreak
 - Troubleshooting prophylaxis availability



~1940

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Investigative Guidelines: Where can you find them? Online!

https://www.oregon.gov/oha/PH/DiseasesConditions/CommunicableDisease/ReportingCommunicableDisease/ReportingGui...

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Public Health

Oregon Disease Investigative Guidelines

Disease Reporting

- Case Report Forms
- Investigative Guidelines**
- What and When to Report
- How and Where to Report
- Reporting Rules
- Collecting REALD
- REALD Reporting for COVID-19 Encounters
- Electronic Laboratory Reporting (ELR)
- Electronic Case Reporting (eCR)
- Orpheus

Download Investigative Guidelines

For reportable diseases lacking Oregon-specific investigative guidelines or case report forms, please contact the epidemiologist on call for assistance at 971-673-1111.

Disease Guideline	Last Updated
Anthrax	03/2019
Botulism	05/2022
Cadmium toxicity	10/2019
Campylobacteriosis	05/2022
Carbapenem-resistant <i>Enterobacteriaceae</i> Infection (CRE)	12/2019
Chikungunya	12/2018
Chlamydia	11/2019

Resources

- For Local Health Departments
- For Providers and Laboratories
- Disease Case Report Forms
- Reporting Disease: What and When to Report
- Processing Lab Reports for Selected Enteric Infections (pdf)
- Disease Reporting Posters

For Outbreaks

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Meet the HIV/STD/TB Section!

STD (Syphilis, Gonorrhea, Chlamydia)

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HIV

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PRACTICE: CASE STUDIES



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Incubation Periods

List the incubation periods for the following diseases:

- Shigellosis
- Rabies
- Meningococcal disease
- In which section of the Guideline is this info found?

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Case Definitions: Shigellosis

A nurse calls to report that a 4-year-old girl is admitted with severe abdominal cramps, nausea and bloody diarrhea, and moderate fever. A culture independent diagnostic test (CIDT) at the hospital detects *Shigella* in her stool, but no culture was performed. The stool sample is sent to OSPHL for further testing.

Does this meet the confirmed case definition for shigellosis infection?
_____yes _____no

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Case Definitions: Shigellosis

OSPHL reports that testing done on the girl's stool specimen was unable to identify any *Shigella* spp.

Since this testing is negative, should she be considered not a case?
_____yes _____no

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Case Definitions: Meningococcal Disease

An infection control practitioner calls to report a 14-year-old male, admitted via the emergency room to the intensive care unit with fever, hypotension, maculopapular rash, diminished level of consciousness. Blood and cerebrospinal fluid (CSF) cultures are negative, but Gram stain of CSF showed Gram-negative diplococci.

Does this meet the case definition as a confirmed case of Meningococcal disease?
_____yes _____no

Section of the Investigative Guideline where the answer is found:

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Case Study: Meningococcal Disease

An infection control practitioner calls to report a 14-year-old male, admitted via the emergency room to the intensive care unit with fever, hypotension, maculopapular rash, diminished level of consciousness. Blood and cerebrospinal fluid (CSF) cultures are negative, but Gram stain of CSF showed Gram-negative diplococci.

1. Does this meet the case definition as a confirmed case of Meningococcal disease?

_____yes _____no

2. Section of the Investigative Guideline where the answer is found:

In the week before this case's onset he attended a 4 hour study group, went to church for 1 hour, went hiking with his family, kissed his girlfriend.

3. Which of his contacts should get postexposure prophylaxis?

4. What are acceptable antibiotic prophylaxis options for contacts?

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Meningococcal Disease: Prophylaxis

In the week before this case's onset he attended a 4 hour study group, went to church for 1 hour, went hiking with his family, kissed his girlfriend.

Which of his contacts should get postexposure prophylaxis?

What antibiotic prophylaxis would you give?

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Diagnostic Tests

For each disease, give the confirmatory lab test (laboratory criteria needed to meet the confirmed case definition):

- Meningococcal Disease
- Shigellosis
- Rabies

Confused, questioning, lost?

ACDP 24/7 Epi On-Call:
971-673-1111

<https://public.health.oregon.gov/Pages/Home.aspx>

