

CD101: Communicable Disease Control – The Basics

Course Exercises – July 2024

Day 1 – July 9, 2024

Module 2: Disease Reporting (Slide 16)

Using the Disease Reporting Poster for Clinicians:

<https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/COMMUNICABLE/DISEASE/REPORTING/COMMUNICABLE/DISEASE/Documents/ReportingPosters/poster-clinicians.pdf>

1. Is Hepatitis A reportable?
If so, when should it be reported?
2. Is a bat-to-dog bite reportable?
If so, when should it be reported?
3. Would you report an influenza death in a 65-year-old man from Curry County?
If so, when would you report this?
4. Would influenza H7N9 be reportable?
If so, when should it be reported?

Module 2: Disease Reporting (Slide 32)

Using the Disease Reporting Poster for Clinicians:

<https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/COMMUNICABLE/DISEASE/REPORTING/COMMUNICABLE/DISEASE/Documents/ReportingPosters/poster-clinicians.pdf>

The infection preventionist at a local clinic called to report a 5-year-old child diagnosed with measles (PCR positive).

1. Is this provider allowed to report the disease?
2. What category of reportable disease is this?
3. What are the LHD responsibilities for investigating the case?
4. Why is investigating this case important?

Day 2 – July 10, 2024

Module 3: Investigative Guidelines – Case Studies

Incubation Periods

1. List the incubation periods for the following diseases:
 - a. Shiga-toxigenic *Escherichia coli* (STEC)
 - b. Rabies
 - c. Meningococcal disease
 2. In which section of the Guideline is this info found?
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Shigellosis:

<https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/COMMUNICABLEDISEASE/REPORTINGCOMMUNICABLEDISEASE/REPORTINGGUIDELINES/Documents/shigellosis.pdf>

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.

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

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

2. Since this testing is negative, should she be considered not a case?
_____yes _____no
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Meningococcal Disease:

<https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/COMMUNICABLEDISEASE/REPORTINGCOMMUNICABLEDISEASE/REPORTINGGUIDELINES/Documents/mening.pdf>

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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Diagnostic Tests

1. For each disease, give the confirmatory lab test give the confirmatory lab test (laboratory criteria needed to meet the confirmed case definition):
 - a. Meningococcal Disease
 - b. Non-O157 STEC
 - c. Rabies
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Module 5: Communicable Disease Exercises and Resources – Rabies Scenarios

1. A man calls to say that he was jogging close to his house when a dog ran out of its yard and bit him on the ankle. He wants to know what to do. What do you tell him?
 - a. Advise him to seek medical attention for wound care.
 - b. His health care provider may wish to consider antibiotics and a tetanus booster.
 - c. Because he knows where the dog lives, advise him to report the bite to animal control so they can place the dog under a 10-day post-bite quarantine.
 - d. The dog is probably vaccinated if it lives in his neighborhood. This is a low risk exposure so treat the wound, tell the jogger to be more careful next time.

 2. A family is having a BBQ. The parents look over just in time to see their two-year-old girl pick up a dead, desiccated bat on the deck and put it in her mouth. (Yes, this actually happened!) What do you tell them?
 - a. Provide RIG and vaccines for the girl, as soon as possible.
 - b. Bats rarely carry rabies in Oregon, no PEP.
 - c. Rabies virus does not survive in saliva after an animal dies. No PEP recommended.
 - d. Children will put anything in their mouths. Don't leave dead bats lying around.
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Module 5: Communicable Disease Exercises and Resources: CRO

How would you classify these cases?

Is it reportable?

Antibiotic	Organism #1		Organism #2	
	<i>Klebsiella pneumoniae</i>		<i>Acinetobacter baumannii</i>	
	Susceptibility	MIC	Susceptibility	MIC
Amp/Sul	Resistant (R)	≥ 32	Susceptible (S)	$< 8/4$
Ceftazidime	R	≥ 64	R	> 16
Ertapenem	Intermediate (I)	1	R	> 1
Ceftriaxone	R	≥ 64	R	> 32
Ciprofloxacin	R	≥ 4	R	> 2
Gentamycin	R	≥ 16	S	< 4
Imipenem	-	-	I	4
Levofloxacin	R	≥ 8	R	> 4
Meropenem	R	4	R	8
Tobramycin	R	≥ 16	S	< 4

Organism #1:

Organism #2: