



FOCUS on Field Epidemiology

DISCUSSION QUESTIONS: Laboratory Diagnosis in Outbreak Investigations

1. Name a few pathogens for which your health department requires a laboratory confirmation to be classified as a “confirmed case.”

Numerous pathogens could be named here. Many states follow the CDC guidelines for notifiable diseases, which includes a list of dozens of pathogens.

For most of the pathogens listed, a confirmatory laboratory test can be performed. The arboviral illnesses, for example (West Nile, St. Louis encephalitis, etc.), can be detected by PCR or serologic methods. At least one method is required to classify a case as a confirmed case.

Other diseases that are relatively common and require a laboratory confirmation include the sexually transmitted diseases gonorrhea and syphilis, the enteric pathogens *Shigella* and *Salmonella*, and the vaccine-preventable invasive disease caused by *Haemophilus influenzae*.

2. What would be the impact of requiring laboratory diagnosis for an organism currently under surveillance in your state? (What would happen to the apparent number of cases?)

You could discuss this question as a hypothetical issue, or your agency may have actually introduced a lab test for a disease under surveillance. Introduction of the lab test may involve expanding the area of routine surveillance.

For instance, if passive reporting by private physicians has been the main source of surveillance data, with lab testing more specimens might be screened; therefore, mandatory laboratory reporting could increase the number of cases detected.

3. Think of a microorganism responsible for outbreaks in your jurisdiction on more than one occasion. Do you know the definitions for suspected, probable, and confirmed cases? What, if any, laboratory test is used to identify this agent from clinical or environmental specimens?

The CDC’s Web site of Nationally Notifiable Infectious Diseases is an extensive resource for clinical and laboratory case definitions and clearly notes the requirements for a confirmed case.

If you are not familiar with these definitions, spend a few minutes looking at commonly reported diseases and the diseases that are most interesting to you.

Visit: <http://www.cdc.gov/epo/dphsi/PHS/infdis.htm>
(Click on “Current Year”)



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