Improving Reporting of Communicable Diseases

Disease reporting is one of the most important services that clinicians can provide to safeguard the public's health. Timely and accurate reporting of suspected or confirmed communicable diseases allows the Los Angeles County Department of Public Health to investigate, identify, and interrupt the spread of many diseases. Further, disease reporting allows the department to monitor and track trends in disease occurrence over time. Each report improves the quality of its disease surveillance programs and helps to assure appropriate investigation as well as medical therapy and prophylactic treatment for appropriate individuals. In addition to conducting disease surveillance and control, Public Health offers guidance for testing, treatment, and prophylaxis for all communicable diseases and outbreaks.

Health care providers in California are required to report specific communicable diseases to the local health department. A complete list of reportable diseases and reporting guidelines are posted at www.publichealth.lacounty.gov/report/proreporting.htm.

What follows are some important ways to expedite disease reporting and improve disease and outbreak reporting.

1. Obtain complete and appropriate diagnostic tests prior to reporting a case.

Reason this is important: For some diseases, a panel of tests is required to confirm the diagnosis. Using proper specimen collection and handling techniques and appropriate diagnostic tests helps avoid inaccurate results, repeated specimen collection, missed cases, false positives, false negatives, and misdiagnoses. An unconfirmed diagnosis may lead to unnecessary public health investigations. Needless repetition (and reporting) of a test when a patient has been previously diagnosed is also of concern.

Free Patient Education Materials on Obesity

The Los Angeles County Department of Public Health's "Choose Health LA" campaign offers free educational materials for use in clinics, schools, and community organizations and settings. Materials focus on obesity prevention and healthy eating, including reducing sugary drinks, portion control, sodium reduction. Posters, handouts, and brochures are easy-to-read and eye-catching. They are available in both English and Spanish. To receive the catalog of materials or to place an order, e-mail choosehealthLA@ph.lacounty.gov. Visit www.choosehealthLA.com for more resources on nutrition and physical activity, such as videos, interactive quizzes, and links to bike paths and walking groups.
Examples

a) Reporting cases of acute hepatitis C requires multiple pieces of information:
   i. The patient should have a discrete onset of symptoms; and
   ii. A positive HCV screening test (EIA antibody test) should be confirmed by a more specific test (RIBA, or detection of the HCV-RNA antigen by polymerase-chain reaction [PCR]), or the patient should have an EIA signal to cut-off ratio that has a high predictive value for that test (most laboratories will indicate if the signal to cut-off ratio is high); and
   iii. The serum alanine aminotransferase (ALT) is greater than 400 or the patient has jaundice; and
   iv. There is no evidence of either acute hepatitis A or B disease. Once a patient has had a positive screening test (EIA or RIBA) for hepatitis C, the repetition of the screening test is unnecessary and wasteful since the patient will probably remain seropositive for life.

b) Lyme disease diagnosis requires a screening test followed by a more specific confirmatory test; yet the overwhelming majority of reports received by Public Health are for screening tests alone.

   First-tier testing is most often performed using a polyvalent ELISA. If the first-tier assay result is positive or equivocal, then the same serum specimen should be retested by separate IgM and IgG immunoblots.

c) Legionnaires disease is a rare but dangerous pulmonary infection that is usually sporadic and most often diagnosed by the urinary antigen test. This test does not yield a bacterial isolate that could be compared to isolates from other recent cases to establish or rule out a common source. Nosocomial pneumonia should be evaluated with a sputum culture so that if legionella is identified, the isolate can be compared to environmental isolates. Delay in identifying a source of legionella bacteria has allowed outbreaks to occur unchecked in health care facilities and the community.

d) Culture and PCR tests are the only tests recommended to diagnose pertussis, and a nasal aspirate or nasopharyngeal swab are the only recommended specimen collection methods. Providers have erroneously ordered Direct Fluorescent Antibody (DFA) Tests, which are not recommended because they have variable sensitivity and specificity. They have also used serological testing, which is not standardized enough to be highly reliable and is difficult to interpret for previously immunized individuals.

   Specimen collection can also be an issue. When performing nasopharyngeal swabs, providers sometimes stop swab insertion before reaching the nasopharynx, use the wrong swab (only a Dacron-tipped nasopharyngeal swab with flexible wire handle cotton is acceptable, not cotton or calcium alginate swabs), or use the wrong culture medium (Regan-Lowe transport media is recommended).

2. Report some communicable diseases before confirmed lab results are available, and report “rule-out” cases immediately rather than relying on the laboratory to report.

   Reason this is important: While confirmation of a diagnosis is generally needed before reporting a case, there are several infections for which prophylaxis is available and recommended for exposed contacts. Specific control measures also may need to be implemented to reduce transmission risks.

   Delay in notification will delay provision of prophylaxis. Prompt notification will allow Public Health to ensure completion of confirmatory testing.
Common examples: Suspected pertussis, rubella, primary/secondary syphilis, and meningococcal disease, as well as febrile rash illness that could be measles.

Rare examples: Haemophilus influenzae type b (Hib), rabies, anthrax, and diphtheria.

3. Include important epidemiologic information about the case and respond to requests for medical information within 1 business day.

Reason this is important: When a case or a suspect is in a day care center, school, or nursing home, or when a food handler with acute diarrhea of undetermined cause is working while ill, Public Health may decide to identify close contacts prior to confirmation of the disease in anticipation of providing mass prophylaxis. Early notification will allow Public Health to interview the suspected case, inspect the location and identify other ill persons, and make decisions about offering prophylactic treatment and/or restricting or closing the business or school. It also assists Public Health to identify potential outbreaks.

Note that HIPAA allows the Department of Public Health to access medical records for a case investigation without obtaining the patient's consent.

Examples: A suspected case of a disease spread by close contact or aerosol transmission (e.g. meningococcal disease, pertussis, measles) lives or recently lived in a high-risk setting (e.g., nursing home, homeless shelter, jail, college dormitory) or attends school or a day care center. Rapid prophylaxis or vaccination can abort clinical disease in susceptible contacts.

There have also been cases where food workers with shigellosis or hepatitis A are still working. This places both coworkers and customers at risk.

4. Report to the LA County Department of Public Health, NOT the California Department of Public Health or CDC. In California and most other states, public health activities are primarily based at the local level.

Reason this is important: Attempts to contact other agencies will delay the response efforts by the local public health agency. State and federal resources can be secured when necessary, but the initial tasks of investigation and control are the responsibility of the local public health agency.

5. Recognize and promptly report outbreaks of diseases to the LA County Department of Public Health.

An outbreak is defined as the occurrence of cases of a disease (illness) above the expected or baseline level, usually over a given period of time, in a geographic area or facility, or in a specific population group. An outbreak could be of any disease above baseline (not just those on the Reportable Diseases list).

In the setting of a skilled nursing facility (SNF), a single case of laboratory-confirmed influenza is considered an outbreak. Influenza is highly transmissible through droplet and contact transmission and has a short incubation period. It is likely there are more influenza cases that have not been reported among other patients and even SNF staff. Prompt public health investigation can assess the need for influenza vaccination, antiviral prophylaxis, and other facility control measures to restrict expansion of the outbreak in the facility.

Reason this is important: Public Health can only investigate and take control measures when it has been alerted of potential problems.

Example: As noted, even if the disease is not reportable, suspected outbreaks should be reported. For instance, four patients developed Mycobacterium fortuitum wound infections after liposuction by the same doctor over one year, when the baseline of postoperative mycobacterial infections for the office practice was zero in previous years. Non-tuberculous mycobacterial infections are not routinely reportable, but this cluster of cases in the surgical practice constituted an outbreak until proven otherwise.

6. Promptly report to Hospital Infection Preventionists.

In addition to notifying Public Health, providers in the hospital setting should alert the hospital infection preventionist of suspected or rule-out vaccine-preventable diseases as soon as possible. This includes reporting cases for patients who are only seen in the Emergency Department and are never admitted as inpatients.

Reason this is important: The hospital infection preventionist can provide consultation to hospital providers regarding diagnostic tests and implement disease-specific precautions to prevent the spread of disease in the hospital setting. He or she can also ensure that suspect cases are appropriately reported to the Department of Public Health.

Example: Failure to promptly report suspected cases to hospital infection preventionists has led to missed diagnoses, has resulted in disease exposure for staff and patients, and has led nosocomial infections, including measles and pertussis.

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