Capnocytophaga Canimorsus and Man's Best Friend

Doriselys Pagan-Pena, MPH; Alexa Ramirez, MPH; Gary Balsamo, DVM, MPH&TM

Case History:
A 41 year-old female, with no prior significant medical conditions, presented to the hospital with complaints of high-grade fever measuring 102.9 degrees fahrenheit, chills, shortness of breath, nausea, vomiting, abdominal cramps and petechiae on her trunk. Despite initial normal chest x-ray (CXR) results, she rapidly developed respiratory distress requiring intubation. Convalescent CXR images revealed bilateral opacities. In addition, gram negative rods were observed on peripheral blood smears.

Blood cultures collected at presentation resulted negative after 24 hours. At 48 hours, a fastidious gram negative bacillus was growing. The strain was identified as *Capnocytophaga canimorsus* at the Centers for Disease Control (CDC) laboratory, on a blood culture, using biochemistry tests and RNA 16S. Testing for other micro-organisms including Brucella, Francisella, and *Legionella* were all negative.

The patient was first treated with a combination of piperacillin and tazobactam followed by vancomycin, meropenem, clindamycin, levaquin, and doxycycline. She developed disseminated intravascular coagulation and further treatments included vasoressors, cryoprecipitate blood products, platelets, and protein C complex medications. In addition, she was started on hemodialysis for chronic kidney disease using slow, low, efficient, daily dialysis (SLEDD). On the fifth day of illness she died of septic shock. The patient had been bitten by a stray dog the day before her onset of symptoms.

Animal mouth flora:
Dogs have more than 600 different types of bacteria in their mouths, which is about the same number as humans. Flora more frequently isolated include *klebsiella pneumoniae*, *e.coli*, *staphylococcus aureus*, *citrobacter freundii*, *enterobacter cloacae*, *acinetobacter calcoaceticus*, and *pasteurella spp*. *Capnocytophaga* is common in dog and cat saliva and is usually not harmful to humans.
An Epidemiologic Study of Delusional Disease Parasitosis as Evaluated by Louisiana Infectious Disease Epidemiology

Raoult Ratard, MD, MS, MPH&TM

In the 2018 November-December issue of the Louisiana Morbidity Report, an example of Ekbom syndrome or "delusional" parasitosis (DP) was presented in "Delusional Parasitosis: The Invisible Bug". This disorder is also referred to as Morgellons Disease.

- Why is IDEpi concerned about reports of delusional parasitosis?

The key reason for concern is because these patients are firmly convinced they are infected with parasites and want help. Some contact federal agencies first such as the Centers for Disease Control (CDC) or the Environmental Protection Agency (EPA). Others seek out their local Regional Medical Director with the Louisiana Office of Public Health (LaOPH), or reach out to friends or relatives for help. Although there are actual cases of humans infected with an animal parasite, such as described in an article published in the 2019 November-December issue of the Louisiana Morbidity Report about Gnathostoma, there is no infection identified with DP patients. Nonetheless, callers are referred to IDEpi for further follow-up.

Photos: Skin scabs (left), scabies (right)

- How does IDEpi involvement start?

The first step is a call from, or about, a patient who is desperate for answers. The patients are confidently convinced that a worm-like parasite is underneath their skin. Usually they have consulted dermatologists, parasitologists, and infectious disease physicians. Often they have been thoroughly evaluated for common organic causes of pruritus and prurigo: external causes such as scabies, lice infestation, or dermatologic conditions, as well as, internal causes such as renal deficiency, iron deficiency, endocrinopathy, cholestasis, and hemopathy. A careful patient interrogation has also checked medical history, treatments, travel, contact with pets, and for any exposure to contagious disease.

(continued on page 4)
Trends in HIV and AIDS Diagnoses in Louisiana, 2010-2019

Lauren Ostrenga, MPH; Jessica Fridge, MSPH

The first reported Louisiana resident with AIDS was diagnosed in 1979. In the 40 years since then, more than 40,000 people have been diagnosed with HIV in Louisiana and over 22,000 people were living with HIV (PLWH) in 2019. In recent years, the number of new diagnoses has remained relatively stable from 2010-2015 with an average of 1,136 (± 58.3) new HIV diagnoses per year. There have been sustained declines in new HIV diagnoses from 2016-2018, decreasing 13%. In 2018, there were 976 new HIV diagnoses, a record low. The last year there were fewer than 1,000 HIV diagnoses in Louisiana was at the start of the epidemic in 1988, excluding years 2005-2006 when hurricane Katrina displaced many residents in southern Louisiana and disrupted HIV testing efforts. Despite the declines in case counts and case rates in recent years, Louisiana’s national ranking has remained stable due in large part to decreases in HIV diagnoses across the nation. Louisiana’s national ranking was unchanged from 2017 to 2018 with the 4th highest HIV case rate in the United States and District of Columbia, 22.1 per 100,000 and 21.2 per 100,000, respectively.

The number of new AIDS diagnoses in Louisiana has declined as well. From 2016-2018 new AIDS diagnoses decreased 25% from 557 diagnoses in 2016 to 419 diagnoses in 2018. The decline in new AIDS diagnoses has improved Louisiana’s national rankings for AIDS case rates. In 2018, Louisiana had the 4th highest AIDS case rate in the nation (9.1 per 100,000), the first time in six years Louisiana was not ranked in the top three.

Preliminary data for 2019 indicate this downward trend in new HIV diagnoses will be sustained for another year. These promising developments are the culmination of numerous prevention and treatment strategies. Timely linkage to HIV medical care and achievement of viral suppression are essential to curbing the HIV epidemic. From 2010-2018, the percentage of new HIV diagnoses linked to HIV care within 30 days of diagnosis increased by 29% with three-quarters of new HIV diagnoses in 2018 linked to HIV care within 30 days of diagnosis. In addition, viral suppression among PLWH in Louisiana has steadily improved from 40% in 2010 to 65% in 2018, a 25% increase. An individual who is virally suppressed cannot transmit HIV to a sex partner.

The STD, HIV, and Hepatitis Program (SHHP) has implemented innovative strategies to achieve gains in timely linkage to HIV medical care and achievement of viral suppression. Initiatives include: the Rapid Start intervention which aims to link newly diagnosed individuals into HIV medical care within 7 days after diagnosis, the U=U (undetectable=untransmittable) campaign to help reduce HIV-related stigma and empower PLWH, and the LA Links program that utilizes regionally located care coordinators to engage PLWH into care and achieve viral suppression. In 2013, SHHP began implementing Health Models, a public health program providing financial incentives to PLWH for adhering to their medical care and achieving and/or maintaining viral suppression. The program is currently active in the New Orleans, Baton Rouge, and Lafayette public health regions. Viral suppression among Health Models participants is consistently higher than PLWH across the state with 90% of current Health Models participants achieving viral suppression as compared to 65% of all PLWH in Louisiana.

(continued on page 4)
Highly focused and innovative HIV prevention efforts have also contributed to the declines in new HIV diagnoses. Statewide efforts to raise HIV awareness and increase access to HIV testing improve knowledge of serostatus. From 2010 to 2017 it is estimated the percentage of PLWH in Louisiana who knew their serostatus increased from 75% in 2010 to 81% in 2017.

In 2012, a novel biomedical intervention became available for HIV-negative individuals at high risk for acquiring HIV when the FDA approved Truvada for PrEP use. Pre-exposure prophylaxis or PrEP is a once daily pill that when taken as prescribed is >99% effective in preventing the sexual transmission of HIV. SHHP launched the TelePrEP Program (www.lahub.org/teleprep) in 2018 which increases access to PrEP by allowing HIV-negative people across the state to virtually communicate with a provider through a telemedicine program. This provider is able to prescribe PrEP and monitor patients over time. In 2018, Louisiana had the 8th highest PrEP coverage in the United States with 22.8% of persons with indications for PrEP prescribed PrEP.

SHHP has also been part of implementing harm reduction strategies to reduce stigma around drug use and address HIV transmission among people who use drugs. As of writing, four urban centers (Alexandria, Baton Rouge, New Orleans, and Shreveport) across the state have approved local ordinances to permit syringe service programs (SSPs). Through provision of sterile syringes, SSPs provide access to proven methods of reducing transmission of HIV and other blood borne diseases such as Hepatitis C, as well as linkage to other services such as wound care, overdose prevention education, and addiction treatment services. The comprehensive prevention and treatment strategies described previously and many others not mentioned here have contributed to the impressive and promising decreases in new HIV diagnoses across the state of Louisiana.

If you have questions about this article, or if you would like more information, contact Lauren Ostrenga at lauren.ostrenga@la.gov or Jessica Fridge at jessica.fridge@la.gov.

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**It's TIME**

**What:** World TB Day

**When:** March 24, 2020

**Theme:** "It's Time"

On March 24, 1882, Dr. Robert Koch announced his finding of the bacillus, Mycobacterium tuberculosis, which causes tuberculosis (TB).

Annually on March 24th organizations worldwide collaborate to raise awareness about the impact of TB and to provide education about treatment, prevention, and control.

To learn more about the Tuberculosis Control Program in Louisiana visit [http://ldh.la.gov/index.cfm/page/1005](http://ldh.la.gov/index.cfm/page/1005).

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**The request for evidence**

Patients willingly volunteer their entire history including their frustration with the medical system. After careful listening, IDEpi will ask for samples of the "parasites" in an effort to evaluate what they are. Patients are eager to submit photos or a sample. No judgement is made during this early fact finding.

Photos of the "parasites" are usually sent to IDEpi via email. Some even send short videos, which are often difficult to interpret. Patients are asked to send still pictures with enough magnification to enable easier evaluation. Upon careful examination of the pictures, the “parasites” appear to be just fibers. They have no structure, such as a digestive tube, or reproductive organs as would be expected in an actual parasite.

Some physicians have prescribed Ivermectin as a treatment for the "parasites." Ivermectin is a medication used to treat round worms. Conversely since Ivermectin has no effects on fibers, this prompts the DP patient to become even more frustrated with the medical system.

In some cases, DP patients have submitted pictures of skin scabs with no structure. Actual samples received have included skin scabs submitted in a vial and in a match box. In another instance, a stack of what appeared to be dirty ear swabs was sent in. After a thorough follow-up has been completed by IDEpi, the time comes to bring the matter to its conclusion.

**Introducing the concept of a "hyperactive" neuro system**

Once the discussion about the nature of these fibers and scabs comes to a close, it is important to reassure patients that they are not "going crazy." The approach is to explain that their brain and central nervous system are “hyperactive” and as a result, send out messages which cause the itching, the feeling of bugs crawling under the skin, and their reaction to pick at and aggravate the lesions. Of course this explanation ignites more discussion with the patient, thus requiring a lot of patience from the epidemiologist.

**Referral to a neurologist or a neuro-psychiatrist**

If the DP patient is convinced, help is needed for a psychiatric referral. This process is facilitated through the Regional Medical Director who has been kept informed of the progress, or lack thereof, of the investigation. Antipsychotic drugs may lead to improvement. Pimozide is recommended as the drug of choice, but atypical antipsychotics, such as risperidone, have also been prescribed because of their better side-effect profiles. Full remission is obtained in only half of the cases with antipsychotic treatment.

**Analysis of 13 years of delusional parasitosis**

From 2006 to 2019 there were 31 cases of DP reported to IDEpi. Though the numbers vary from year to year, the trend shows an increase from an average of 1.5 cases in 2006 to an average of three per year in the most recent years.

(continued on page 6)
About 10 million dog bites are reported in the United States every year. Of those, approximately 15,000 occur in Louisiana. The incidence of *Capnocytophaga canimorsus* is estimated to be 0.5 case, per one million people, per year, according to reports in one Danish study. This would translate to 150 cases per year in the United States. Although bites are a common source of exposure, other modes of transmission may occur such as scratches, or even simple contact with dogs or cats.

**Capnocytophaga microbiology:**

*Capnocytophaga* is a gram negative coccobacilli with fastidious growth. The genus has seven other species with *C. cyndegmi* being the most important. Among the many antibiotics *capnocytophaga* are sensitive to are cefoxitin, imipenem, amoxicillin/clavulanic, cilastatin, and clindamycin. Resistant strains are most commonly resistant to third generation cephalosporins and monobactams. Resistance is linked to beta-lactamases encoded in the chromosomes or in plasmids (CfxA gene).

**Capnocytophaga pathology:**

Due to its unique lipopolysaccharide, the organism possesses virulence attributes of catalase and sialidase production, gliding motility, cytotoxin production, and resistance to killing by serum complement. Though not usually harmful to humans, the organism may affect immune-competent individuals. However, infections are more frequent in immune-compromised patients. Common risk factors include young infants, persons with asplenia, chronic alcoholic liver disease, steroid use, Beta thalassemia (iron is necessary for *capnocytophaga* to grow), and smokers.

Localized infections could lead to osteomyelitis, arthritis, lung abscesses, meningitis, endocarditis, conjunctivitis, or peritonitis. Infections in periodontal disease in gingival abscesses may lead to alveolar bone infection and tooth loss. Systemic complications include kidney disease, hemolytic uremic syndrome, thrombocytopenic purpura, and severe sepsis. Cases with severe sepsis develop high fever, petechiae, disseminated intravascular coagulation with necrosis, and loss of extremities.


### Call for Hospital Anti-biograms

*http://www.ldh.la.gov/hai*

The Healthcare Associated Infections and Antibiotic Resistance (HAI/AR) Program is collecting 2018 Louisiana hospital antibiograms. Contact Ashley Terry, MPH, CPH, CIC at (504) 568-3189 or ashley.terry@la.gov with inquiries or for guidance with submissions.

Frequently asked questions and answers, about the antibiogram report, can be found at [http://ldh.la.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/AntibioticSensitivity/LaAntibiogramQA1.pdf](http://ldh.la.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/AntibioticSensitivity/LaAntibiogramQA1.pdf).

Summary of available data extracted from case investigations:

- **GENDER:** Men (6), Women (25)
- **AGE:** 20-29 years old (collected for only three patients)
- **REFERRED FROM:** CDC (2), EPA (1), mosquito control (1), termite/pest control (1)
- **HISTORY OF TRAVEL:** Latin America (1), Middle East (1)
- **IMMUNOCOMPROMISED:** HIV (1), Diabetes (1)
- **TREATMENT USED:** Isopropyl alcohol, vinegar, apple cider, hydrogen peroxide (none of which were deemed effective)
- **LESIONS:** Skin erosions/ulcers (30)
- **SUICIDAL THOUGHTS:** (1)
- **OTHERS INVOLVED:** Family members (4), dogs (5)
- **ENVIRONMENTAL SUSPECTS:** Bedding or seating (5), bath water (2)
- **ASSUMED CAUSES:** Round worms (2), Foot-long worm (2), Spirurida (1), Gnastostoma (1), Cotton worm (1), Fungi (3), Maggots /Myiasis (3), Scabies (3)

Most DP patients complain of having symptoms for years, however it is difficult to pinpoint the exact dates of symptom onsets. The longest duration was seven years for one patient. It would be interesting to organize a follow-up study, however, it would be unethical to stir up memories that have faded, 2-unethical since such a study would have no public health benefit, and 3-impractical because of the time involved in contacting each case. Contact raoult.ratard@la.gov with inquiries about this article.

Reference: Trabert W. Psychopathology. 1995;28(5):238-46. 100 years of delusional parasitosis. Meta-analysis of 1,223 case reports. PMID: 8559947, DOI: 10.1159/000284934. Delusional parasitosis (DP) is mostly described in single cases or small samples. Data on epidemiology, nosological classification, therapy and course are therefore difficult to interpret. A thorough literature review is recommended to delineate common features of the syndrome. All case reports concerning DP (except toxic forms) were collected and analyzed according to a standardized protocol. DP is a disorder which may occur in every period of life but is much more frequent in older subjects. Sex differences with a predominance of females increase with age. Mean duration of delusion was 3.0 +/- 4.6 years (median: 1 year). Social isolation seems to be more a premorbid feature than a secondary phenomenon related to the delusion. Diagnostic classification revealed a high proportion of so-called ‘pure’ forms (Delusional disorders’ in DSM-III-R or ICD-10) but the syndrome was also reported in schizophrenia, affective or organic psychosis or even as a neurotic symptom. Frequency of induced DP can be estimated between 5 and 15%. Course of DP is not so unfavorable as commonly thought; in about half the patients a full remission was described during the observation period or at catamnestic. Short preclinical courses may indicate better outcome. Comparing the patients of the prepsychopharmacological era (before 1960) with those after, the rate of full remissions increased from 33.9 to 51.9%.

Table: Geographical locations of DP cases. Refer to the regional map of Louisiana on page 7.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of cases</th>
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<tr>
<td>1: Orleans</td>
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</tr>
<tr>
<td>2: Baton Rouge</td>
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<tr>
<td>3: Houma/Thibodaux</td>
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<tr>
<td>4: Lafayette</td>
<td>4</td>
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<tr>
<td>5: Lake Charles</td>
<td>1</td>
</tr>
<tr>
<td>6: Alexandria</td>
<td>4</td>
</tr>
<tr>
<td>7: Shreveport</td>
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</tr>
<tr>
<td>8: Monroe</td>
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<td>9: Mandeville</td>
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<td>Unspecified</td>
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Figure: Trend of delusional parasitosis case investigations, 2006 to 2019
Table 1. Communicable Disease Surveillance, Incidence by Region and Time Period, November-December, 2019

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<th>DISEASE</th>
<th>HEALTH REGION</th>
<th>TIME PERIOD</th>
<th>Jan-Dec</th>
<th>Jan-Dec</th>
<th>Jan-Dec</th>
<th>Nov-Dec</th>
<th>Nov-Dec</th>
<th>Cum</th>
<th>Cum</th>
<th>% Chg*</th>
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<td>1 2 3 4 5 6 7 8 9</td>
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<td>2019</td>
<td>2018</td>
<td>2019</td>
<td>2018</td>
<td>2018</td>
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<tr>
<td>Vaccine-preventable</td>
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<td>1.3</td>
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<td>146</td>
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<td>Shigella*</td>
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<td>H. influenzae (invasive)</td>
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</tr>
</tbody>
</table>

1 = Cases Per 100,000
2=These totals reflect persons w ith HIV infection whose status was first detected during the specified time period. This includes persons who were diagnosed with AIDS at time HIV was first detected.
3=Confirmed cases
4=Confirmed and Probable cases

* Percent Change not calculated for rates or count differences less than 5

Table 2: Diseases of Low Frequency (January-December, 2019)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Total to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legionellosis*</td>
<td>49</td>
</tr>
<tr>
<td>Lyme Disease*</td>
<td>8</td>
</tr>
<tr>
<td>Malaria*</td>
<td>6</td>
</tr>
<tr>
<td>Rabies, animal</td>
<td>7</td>
</tr>
<tr>
<td>Varicella*</td>
<td>68</td>
</tr>
</tbody>
</table>

Table 3: Animal Rabies, (November-December, 2019)

<table>
<thead>
<tr>
<th>Parish</th>
<th>No. Cases</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lafayette</td>
<td>1</td>
<td>Skunk</td>
</tr>
</tbody>
</table>

Erratum to the November-December 2019 issue:
Brazilian Freetail bat was reported as Nov-Dec 2019. Correct date range is Sept-Oct 2019.
Sanitary Code - State of Louisiana
Part II - The Control of Disease

LAC 51:II.105: The following diseases/conditions are hereby declared reportable with reporting requirements by Class:

Class A Diseases/Conditions - Reporting Required Within 24 Hours
Diseases of major public health concern because of the severity of disease and potential for epidemic spread-report by telephone immediately upon recognition that a case, a suspected case, or a positive laboratory result is known; in addition, all cases of rare or exotic communicable diseases, unexplained death, unusual cluster of disease and all outbreaks shall be reported.

Acinetobacter spp., carbapenem-resistant
Acute Flaccid Paralysis including Acute Flaccid Myelitis
Amoeba (free living) infection (including Acanthamoeba, Naegleria, Balamuthia & others)
Anthrax
Avian or Novel Strain Influenza A (initial detection)
Botulism
Brucellosis
Candida auris, as well as common misidentifications of C. auris (e.g., C. haemulonii, C. dubio- haemulonii, C. fumata, C. lusitaniae,
C. sake, C. parapsilosis, C. catenulata, C. guilliermondii, and Rhodotorula glutinis)
Cholera
Enterobacteriaceae, carbapenem-resistant
Fish/Shellfish Poisoning (domoic acid, neurotoxic shellfish poisoning, ciguatera, paralytic shellfish poisoning, scombroid)
Haemophilus influenzae (invasive infection)
Influenza-associated Mortality
Measles (Rubella imported or indigenous)
Melioidosis (Burkholderia pseudomallei)
Neisseria meningitidis (invasive infection)
Outbreaks of Any Infectious Disease
Pertussis
Polymyelitis (paralytic & non-paralytic)
Pseudomonas aeruginosa, carbapenem-resistant
Q Fever (Coxiella burnetii)
Rabies (animal and human)
Ricin Poisoning
Rubella (congenital syndrome)
Rubella (German Measles)
Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)
Smallpox
Staphylococcal aureus, Vancomycin Intermediate or Resistant (VISA/VRSA)
Staphylococcal Enterotoxin B (SEB) Pulmonary Poisoning
Tularemia (Franciscella tularensis)
Viral Hemorrhagic Fever (Ebola, Lassa, Marburg, Crimean Congo, etc.)
Yellow Fever

Class B Diseases/Conditions - Reporting Required Within 1 Business Day
Diseases of public health concern needing timely response because of potential of epidemic spread-report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result is known.

Anaplasmosis
Arthropod-Borne Viral Infections (West Nile, Dengue, St, Louis, California, Eastern Equine, Western Equine, Chikungunya, Usutu, Zika & others)
Aseptic Meningitis
Babesiosis
Chagas Disease
Chancroid
Cryptosporidiosis
Cyclosporiasis

Class C Diseases/Conditions - Reporting Required Within 5 Business Days
Diseases of significant public health concern-report by the end of the workweek after the existence of a case, suspected case, or a positive laboratory result is known.

Acquired Immune Deficiency Syndrome (AIDS)
Anaplasma Phagocytophilum
Aspergillosis
Blastoconycosis
Campylobacteriosis
Chlamydial Infection 1,2
Coccidioidomycosis
Cryptococcosis (C. neoformans and C. gatti)
Ehrlichiosis (human granulocytic, human monocytic, E. chaffeensis and E. ewingii)
Enteroxococci, Vancomycin Resistant [VRE], invasive disease

Class D Diseases/Conditions - Reporting Required Within 5 Business Days

Class E Diseases/Conditions - Reporting Required Within 10 Business Days

Any disease/condition where the work environment is suspected to be the cause of an illness or injury or where the work environment is thought to be the cause of an illness exacerbation.

Class A Diseases/Conditions

Class B Diseases/Conditions

Class C Diseases/Conditions

Class D Diseases/Conditions

Class E Diseases/Conditions

Case reports not requiring special reporting instructions (see below) can be reported by mail or fax on Confidential Disease Report forms (2430), fax (504) 568-8290, telephone (504) 568-8313 or call (800) 256-2748 .

1Report on STD-43 form. Report cases of syphilis with active lesions by telephone, within one business day, to (504) 568-8313 or call (800) 256-2748 .
2Report on Form TB-3431 (894). Mail form to TBD Control Program, DHH-DPH, P.O. Box 66830, New Orleans, LA 70116-6630 or fax both sides of the form to (504) 568-5016
3Report to the Louisiana STD/HIV Program: Visit www.ltdh.louisiana.gov or call 504-568-8313 for regional contact information.
4Report on form TB-3431 (894). Mail form to TBD Control Program, DHH-DPH, P.O. Box 66830, New Orleans, LA 70116-6630 or fax both sides of the form to (504) 568-5016
5Report to the Louisiana Genetic Diseases Program and Louisiana Childhood Lead Poisoning Prevention Programs: www.genetics.dhh.louisiana.gov or facsimile (504) 568-8253, telephone (504) 568-8254, or (800) 242-3112
6Report to the Section of Environmental Epidemiology and Toxicology, Occupational Health and Injury Surveillance Program: www.eecd.dhh.louisiana.gov or call (504) 568-8150 or (888) 293-7020 or fax (504) 568-8149
7Report to the Louisiana STD/HIV Program on HIV/Syphilis by Reporting Form: Visit www.ltdh.louisiana.gov or call 504-568-7474


All laboratory facilities shall, in addition to reporting tests indicative of conditions found in §105, report positive or suggestive results for additional conditions of public health interest. The following findings shall be reported as detected by laboratory facilities: 1. adenoviruses; 2. coronaviruses; 3. enteroviruses; 4. hepatitis B (carriage other than in pregnancy); 5. hepatitis C (past or present infection); 6. human metapneumovirus; 7. parainfluenza viruses; 8. respiratory syncytial virus; and 9. rhinoviruses.