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# ATTENTION

## Public Health Update

The Westchester County Department of Health provides public health updates to members of the medical community on important issues affecting public health in Westchester

Please distribute to colleagues in HIV Primary Care, Gastroenterology, Colorectal Surgery, Infectious Disease, Emergency Medicine, Family Practice, Internal Medicine, Laboratory Medicine, Obstetrics/Gynecology, Pediatrics, Adolescent Medicine, and Urology

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## Lymphogranuloma Venereum (LGV)

- LGV is a systemic sexually transmitted disease (STD) caused by invasive strains of *Chlamydia trachomatis* (serovars L1, L2, L3), rarely occurring in the U.S.
- Recent outbreaks of LGV among men who have sex with men (MSM), most of whom are HIV positive and have atypical clinical presentations, have been reported in Europe; cases are now being identified in the US., including 2 HIV-positive New York City residents; both are MSM who presented with rectal symptoms (rectal pain, bloody rectal discharge).
- **Notify the Westchester County Department of Health (WCDH) immediately of any possible LGV infections (914-813-5220 or 914-813-5216); we will assist with diagnostic testing, case investigation, and partner notification.**
- Consider the diagnosis of LGV in individuals with the above risk factors who present with GI symptoms such as proctocolitis, anal discharge, symptoms or signs similar to inflammatory bowel disease, in addition to the more typical findings of genital or rectal ulcer associated with tender inguinal adenopathy.
- Additional information is available from WCDH and attached – Recommended treatment for LGV is 100 mg of doxycycline, twice a day for 21 days. Post-exposure prophylaxis for asymptomatic sex partners consists of 100 mg of doxycycline, twice a day for 7 days.

Attached is a copy of the October 29, 2004 *MMWR* article regarding LGV. The *MMWR* article describes the Netherlands LGV outbreak and LGV clinical signs and symptoms, and summarizes CDC's STD Treatment Guidelines for LGV.

offering chlamydia screening; and 4) lack of knowledge of the availability of urine-based chlamydia screening tests. Patient factors include 1) the stigma associated with STDs; 2) lack of awareness of the high prevalence, asymptomatic nature, and serious complications of chlamydial infection; 3) the presence of parents during the examinations of adolescents, which precludes confidential sexual risk assessment; and 4) fears about breaches of confidentiality regarding sexual health services or diagnoses noted in medical records or bills (5).

The findings in this report are subject to at least two limitations. First, HEDIS data reflect screenings reported by HMO and POS plans that covered only approximately 30% of U.S. residents in 2001. Second, HEDIS estimates might underestimate or overestimate actual screening rates for these health plan enrollees. HEDIS depends on routinely collected administrative data to facilitate data collection within plans and allow comparison across plans. However, if a substantial proportion of sexually inactive enrollees had claims for pregnancy tests or oral contraceptives for reasons not related to sexual activity, or if medical claims did not identify all chlamydia tests ordered, HEDIS data would underestimate actual screening rates. Overestimation might occur if a substantial proportion of sexually active enrollees lacked claims for pregnancy, contraceptives, STDs, or Pap tests that would classify them as sexually active in administrative data (5), or if the measure's numerator included claims for chlamydia tests used to diagnose illness in symptomatic patients (5). Overestimation also might result if health plans that perform well on the chlamydia screening measure are more likely to report their results to NCQA than those that do not perform as well. Continued evaluation is needed of how well administrative data used for HEDIS measures reflect actual practice.

The findings in this report highlight the need for interventions to increase chlamydia screening, improve quality of care, and reduce the estimated \$249 million direct medical costs of chlamydia and its sequelae for adolescents and young adults (6). Interventions are especially important in commercial plans, given that two thirds of women of reproductive age (15–44 years) in the United States are commercially insured (7) and only 13% of chlamydial infections in the CDC surveillance system are reported by public STD clinics (8). System-level interventions in large commercial plans have substantially increased chlamydia screening rates of sexually active young women within 2 years (9,10). One intervention increased screening from 5% to 65% by 1) informing providers about high chlamydia prevalence, 2) implementing procedures allowing adolescents some encounter time without parents, and 3) providing urine tests and monthly provider feedback on screening rates (9). Another intervention, which included “championing” of screening by health-plan leaders and

routine placement of chlamydia specimen collection materials next to Pap test collection kits, increased screening from 61% to 83% (10). Such system-level interventions should complement provider and patient education. In addition, including chlamydia screening as one of the HEDIS measures used to accredit health plans by NCQA might provide motivation to increase screening.

#### Acknowledgment

This report is based, in part, on data contributed by 427 health plans reporting HEDIS® data to NCQA.

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## Lymphogranuloma Venereum Among Men Who Have Sex with Men — Netherlands, 2003–2004

Lymphogranuloma venereum (LGV) is a systemic, sexually transmitted disease (STD) caused by a variety of the bacterium *Chlamydia trachomatis* that rarely occurs in the United States and other industrialized countries; the prevalence of LGV is greatest in Africa, Southeast Asia, Central and South America, and Caribbean countries (1). However, in the Netherlands, which typically has fewer than five cases a year, as of September 2004, a total of 92 cases of LGV had been

confirmed during the preceding 17 months among men who have sex with men (MSM). The first 13 cases, diagnosed during April–November 2003, were reported by local health authorities in Rotterdam in December 2003 (2,3). An alert was sent to the Early Warning and Reporting System of the European Union and to the European Surveillance of Sexually Transmitted Infections Network (ESSTI) (4). In April 2004, a report was made to CDC, and state and local health departments were alerted. Of the 92 cases confirmed in the Netherlands, 30 occurred during 2003 and 62 during 2004. This report describes the ongoing investigation of the LGV outbreak. Health-care providers should be vigilant for LGV, especially among MSM exposed to persons from Europe, and prepared to diagnose the disease and provide appropriate treatment to patients and their exposed sex partners (Box).

The cases in the Netherlands were investigated by staff members of public health services, academic medical centers, and the National Institute of Public Health and Environment. After the initial 13 cases were reported, efforts were implemented to increase awareness of the outbreak among health-care providers, staff at human immunodeficiency virus (HIV)–treatment centers and STD clinics, and members of the MSM community. As a result, an additional 17 confirmed cases and 40 probable cases that occurred in 2003 were identified retrospectively.

LGV was diagnosed by conducting polymerase chain reaction (PCR) tests on rectal swab specimens and performing subsequent restriction endonuclease pattern analysis of the amplified outer membrane protein A gene to determine the genotype. Confirmed cases were those in patients with 1) proctitis or contact with a patient confirmed with LGV; 2) a positive PCR test for *C. trachomatis* on a urine or rectal specimen; and 3) L1, L2, or L3 genotype determined by PCR. Probable cases were those in patients whose illness was consistent with the first two criteria and who also had a positive serologic test for *C. trachomatis*, but did not meet the third criterion because specimens were not available for genotyping. Possible cases were in patients who met only the first criterion and had a positive serologic test.

Increased awareness of the LGV outbreak resulted in retrospective reporting of 2003 cases and reporting of 62 confirmed cases in 2004, as of September 1. Additional epidemiologic information was obtained on these 62 patients. Preliminary evaluation determined that all the patients were white and that, among the 30 MSM whose HIV status was known, 23 (77%) were HIV positive. Other preliminary findings suggested that concurrent sexually transmitted infections were prevalent and that the majority had participated in casual sex gatherings (e.g., “leather scene” parties) and unprotected anal intercourse or other unprotected anal penetration (e.g., fisting) during the 12 months before onset of symptoms.

#### **BOX. Etiology, clinical manifestations, diagnosis, and treatment of lymphogranuloma venereum (LGV)**

##### **Etiology**

- LGV is caused by *Chlamydia trachomatis* serovars L1 to L3. (*C. trachomatis* serovars B and D–K are responsible for the syndromes of non-gonococcal urethritis and cervicitis.)

##### **Clinical manifestations**

- The primary lesion produced by LGV is a small, non-painful genital papule, which can ulcerate at the site of inoculation after an incubation period of 3–30 days. This lesion can remain undetected within the urethra, vaginal vault, or rectum.
- Common clinical manifestations include 1) tender, unilateral, or bilateral inguinal and/or femoral adenopathy, which can become fluctuant; and 2) hemorrhagic proctitis or proctocolitis, which is associated with receptive anal intercourse (1). The clinical and histologic presentation of LGV proctocolitis can be similar to the initial manifestations of inflammatory bowel disease (2).

##### **Diagnosis**

- Diagnosis is based primarily on clinical findings; routine laboratory confirmation might not be possible.
- Serologic tests for *C. trachomatis* (i.e., microimmunofluorescence or complement fixation) can support diagnosis.
- Direct identification of *C. trachomatis* from a lesion (i.e., bubo) or site of the infection (e.g., rectum) can be made by using culture or by using nonculture nucleic acid testing; however, neither method is specific for LGV, and use of rectal swabs for nucleic acid testing is not cleared by the Food and Drug Administration.

##### **Treatment**

- The recommended treatment is administration of 100 mg of doxycycline, twice a day for 21 days. Alternative treatment is 500 mg of erythromycin base orally, four times a day for 21 days. Some specialists in sexually transmitted diseases believe 1 g of azithromycin, administered orally once weekly for 3 weeks, is effective; however, clinical data are lacking.
- Sex partners who had contact with the patient within 30 days of the patient’s onset of symptoms should be evaluated; in the absence of symptoms, they should be treated with either 1 g of azithromycin in a single dose, or 100 mg of doxycycline, twice a day for 7 days.

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Only one patient, with onset of illness in April 2003, had symptoms usually associated with LGV (i.e., inguinal adenopathy [buboes] and a painful genital ulcer) (3); all other patients had gastrointestinal symptoms (e.g., bloody proctitis with a purulent or mucous anal discharge and constipation) (2). In all of the cases in Rotterdam, LGV was associated with high-titer antibodies to *C. trachomatis* in sera, as determined by peptide enzyme immunoassay. When urethral swab samples were obtained, they did not contain *C. trachomatis* DNA. LGV was temporally associated with HIV seroconversion in two patients and with recent acquisition of hepatitis C infection in five others.

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**Editorial Note:** Although some of the patients in this LGV outbreak reported having multiple sex partners in cities in Europe and the United States (2), limited information has been reported regarding LGV occurrence outside the Netherlands. However, recent reports from Belgium, France, and Sweden confirm that LGV is occurring elsewhere in Europe (5,6). Additional reports might follow increased awareness of the outbreak (7). In July 2004, CDC identified an L2 LGV strain on a rectal swab specimen from a patient in the United States who had signs and symptoms similar to those of the patients in the Netherlands. In this case, no known exposure to European MSM was reported; U.S. contacts of the patient were evaluated and treated.

Health-care providers and MSM in the United States and Europe should be aware of this LGV outbreak, which is similar to STD increases (e.g., in syphilis, rectal gonorrhea, and quinolone-resistant *Neisseria gonorrhoeae* and including coinfections with HIV) that have been reported in recent years among MSM (8,9). The ulcerative character of LGV can facilitate transmission and acquisition of HIV and other STDs or bloodborne diseases.

The number of cases reported in the Netherlands is likely a minimum estimate of disease occurrence; clinicians in industrialized countries diagnose LGV rarely and would usually not consider LGV as a likely cause of gastrointestinal illness. Estimates of the incidence and prevalence of LGV in the United States are difficult to obtain; the disease is not nationally reportable, and the diagnosis is not straightforward. The clinical presentation of LGV might easily be missed, as evidenced

by the large number of retrospective cases identified in the Netherlands.

The laboratory criteria consistent with a diagnosis of LGV include a positive result (i.e., titer  $\geq 1:64$ ) on a complement fixation test for chlamydiae or a high titer (i.e., typically  $>1:128$ , but can vary by laboratory) on a microimmuno-fluorescence serologic test for *C. trachomatis*. However, most available serologic tests in the United States are based on enzyme immunoassays and might not provide a quantitative "titer-based" result. A list of laboratories that perform serologic tests for *C. trachomatis* and might provide a titered result is available at <http://www.cdc.gov/std/lgv-labs.htm>.

CDC and other laboratories are evaluating molecular approaches compliant with Clinical Laboratory Improvement Amendment regulations that will permit specific diagnoses of LGV. CDC advises clinicians who care for MSM to consider LGV in the diagnosis of compatible syndromes (e.g., proctitis and proctocolitis) and perform tests to diagnose *C. trachomatis* infections, without regard to the specific LGV serovars. Recommended treatment regimens for those suspected of having LGV and their sex partners are offered (Box).

Evaluation of gastrointestinal syndromes that might have been sexually transmitted should include appropriate diagnostic procedures (e.g., anoscopy or sigmoidoscopy) and microbiologic testing for *C. trachomatis*, syphilis, herpes, *N. gonorrhoeae*, and common enteric pathogens that can be sexually transmitted. Clinicians who identify cases compatible with LGV (e.g., proctitis associated with serologic or microbiologic evidence of chlamydial infection) should contact CDC at 404-639-2059 and local health departments.

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## Laboratory Exposure to *Burkholderia pseudomallei* — Los Angeles, California, 2003

On July 26, 2003, the Los Angeles County Department of Health Services (LACDHS) received a report that a local clinical laboratory had isolated from specimens *Burkholderia pseudomallei*, a category B biologic terrorism agent and the causative organism for melioidosis, which is endemic to certain tropical areas. Because laboratory workers had manipulated cultures of the organism, CDC was asked to assist in the subsequent investigation. This report summarizes the results of that investigation, which included assessment of laboratory exposures, postexposure chemoprophylaxis, and serologic testing of exposed laboratory workers. The findings underscore the need to reinforce proper laboratory practices and the potential benefits of chemoprophylaxis after laboratory exposures.

The specimens were taken from a man aged 47 years with diabetes mellitus who had been evaluated at a local emergency department (ED) for fever, chills, and chest and leg pain. He had traveled to El Salvador 3 weeks earlier and returned 3 days before visiting the ED. During the preceding 2 weeks, the man had intermittent fever and night sweats. In the ED, a chest radiograph revealed bilateral and multifocal infiltrates, and he was admitted to the hospital; a computed tomography imaging scan indicated the presence of pulmonary abscesses. During the next 2 days, his condition deteriorated, requiring intubation and mechanical ventilation for respiratory failure; he died from fulminant sepsis and multiorgan system failure. An autopsy revealed acute necrotizing pneumonia, multiple renal abscesses, and cirrhosis.

During the patient's hospitalization, seven specimens of blood, urine, sputum, and bodily fluid were obtained; 2 days after the patient's death, bacterial isolates from all specimens were presumptively identified as *B. pseudomallei* by the laboratory's automated identification system and subsequently confirmed by polymerase chain reaction at the LACDHS Public Health Laboratory. A total of 17 laboratory workers had manipulated cultures from these specimens. These

workers were considered exposed and were offered antibiotic chemoprophylaxis within 48 hours of their exposures.

An onsite investigation was conducted on August 7. Laboratory procedures were reviewed and work activities classified into high and low risk. High-risk activities were defined as those that might result in organism-containing aerosol or droplet formation. High-risk activities included sniffing open culture plates to detect characteristic odors emitted by certain bacteria and preparing suspensions from culture plates using a vortex machine. High-risk activities also included routine laboratory procedures when not performed in a biological safety cabinet (BSC), such as picking colonies, subculturing, inoculating biochemical tests, centrifuging, and preparing slides. Manipulations of cultures inside a BSC were classified as low-risk exposures. On August 11, exposed workers completed a questionnaire regarding demographics, medical and travel histories, and work activities performed on the *B. pseudomallei* cultures. Active surveillance was conducted for symptoms consistent with melioidosis among exposed workers. Finally, serum specimens were obtained for anti-*B. pseudomallei* antibody testing from all exposed workers at 1, 2, 4, and 6 weeks after exposure. Serologic testing was performed by using an indirect hemagglutination test at PathCentre (Nedlands, Australia), with a positive result defined as a titer  $\geq 40$  (1).

All 17 exposed workers completed the questionnaire. The median age was 48 years (range: 36–59 years). All reported  $\geq 10$  years of laboratory work experience (Table). Five persons (29%) reported an underlying condition, such as diabetes, that might put them at risk for severe disease. Eight (47%) reported having traveled to Southeast Asia during their lifetimes. Thirteen (77%) reported high-risk activities, including four (24%) who reported sniffing an open *B. pseudomallei* culture plate because of the distinctive "earthy" odor.

Sixteen workers completed a 3-week regimen of trimethoprim-sulfamethoxazole, and one completed a 3-week regimen of doxycycline. Antibiotics were begun at a median of 2 days' postexposure (range: 0–4 days). None of the exposed laboratory workers had symptoms consistent with melioidosis during 5 months after exposure. Two laboratory workers had titers of  $\leq 20$  for *B. pseudomallei* on the first serum drawn. Both workers were born in the United States, and neither demonstrated an increase in titer 6 weeks after exposure. The first (no. 17) reported sniffing a *B. pseudomallei* culture plate. The worker recalled previous travel to Hawaii, Europe, Mexico, and Jamaica but reported no previous illnesses consistent with melioidosis. The second worker (no. 1) reported low-risk activities. The worker reported previous travel to the Philippines and Singapore and was hospitalized in 2001 for pneumonia with pleural effusions requiring thoracenteses; no pathogen was identified.