



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Thomas Farley, M.D., M.P.H.
Commissioner

2012 ALERT # 27

Invasive Meningococcal Disease in Men Who Have Sex with Men

Please Share this Alert with All Emergency Medicine, Family Medicine, Primary Care Physicians, HIV Specialists, Infectious Disease and Internal Medicine Staff in Your Facility

- **Since August 2010, 12 cases of invasive *Neisseria meningitidis* infection have occurred in men who have sex with men, 8 of whom are HIV infected**
- **The Health Department will assist providers in identifying close contacts and administering antibiotic prophylaxis**

September 27, 2012

The New York City Department of Health and Mental Hygiene (DOHMH) is investigating a cluster of invasive meningococcal disease (IMD) among men who have sex with men (MSM). Since August 2010, there have been 12 cases reported: 1 in 2010, 3 in 2011, and 8 in 2012. Of the 12 cases since August 2010, four have died; of the four cases reported in the past four weeks, 1 has died. Eleven of the 12 cases are serogroup C *Neisseria meningitidis* (one is pending). The approximate annual incidence rate in MSM is 5.4 per 100,000. In contrast, the rate of IMD (all serogroups) in all other New Yorkers is 0.25 per 100,000. Genetic analysis suggests that 6 of 7 infections are related to a strain of *N. meningitidis* that was responsible for the 2006 outbreak in New York City.

The median age of cases is 32 years; all were between 21 and 59 years old. Six cases lived in Brooklyn, three in Manhattan, two in the Bronx, and one was undomiciled. Case investigations have identified factors that may increase susceptibility to IMD, increase exposure to persons carrying *Neisseria meningitidis*, or both. Eight of the 12 cases were known to be infected with the human immunodeficiency virus (HIV). Five reported using cocaine and/or crystal methamphetamine. Four reported using internet sites to meet men for sex. Three cases, however, were not known to be HIV-infected, did not report using drugs, and did not report using Internet sites to meet men for sex.

Please remember to report cases of IMD to the DOHMH immediately. Regular and after hours contact information is included at the end of this alert. Please also ensure that bacterial isolates are submitted to the Public Health Laboratory for serogrouping and molecular typing in a timely fashion. Primary specimens (whole blood, cerebral spinal fluid, pleural fluid, joint fluid, etc.) should be saved for polymerase chain reaction testing at the New York State Wadsworth Center Laboratory for diagnosing culture negative cases.

Patients with meningococcal disease characteristically present with fever, headache, stiff neck, petechial rash, sepsis, and/or altered mental status. Early in the course, an abnormality in pulse, blood pressure or respiratory rate out of proportion to the physical examination may be the only indication of a serious infection. Rapid recognition of invasive meningococcal disease with administration of appropriate antibiotics increases the probability of survival. Treatment with antibiotics should not be delayed pending the results of diagnostic testing. Early clues to meningococcal disease may include:

- Presence of petechial or purpuric rash. It is especially important to examine the skin thoroughly for the presence of petechiae. In the early stages of meningococcal disease the rash may be maculopapular and blanch.

- Severe abdominal pain.
- Severe muscle pain, usually in the extremities or back.

Timely antibiotic prophylaxis reduces the risk of secondary transmission among close contacts, but must be administered as soon as possible and within 10 days of the last exposure. DOHMH routinely investigates all IMD cases to identify close contacts and assist providers with administering antibiotic prophylaxis. Persons that should receive prophylaxis include:

- 1) Household members.
- 2) Child-care center contacts.
- 3) Anyone directly exposed to the patient's respiratory or oral secretions (e.g., through kissing, intimate contact, mouth-to-mouth resuscitation, endotracheal intubation, or endotracheal tube management).

Chemoprophylaxis recommendations are included at the end of this alert.

Two meningococcal conjugate vaccines that contain serogroups A, C, W135, and Y are licensed for use in adults through age 55 years. The Centers for Disease Control and Prevention and the Advisory Committee on Immunization Practices do not recommend routine vaccination of HIV-infected individuals unless some other risk factor is present, such as asplenia. If an HIV-infected individual is vaccinated, they should receive 2 doses, 8 weeks apart (i.e., at 0 and 2 months). Meningococcal polysaccharide vaccine should be used for adults aged 56 and older. DOHMH is currently reviewing available data to determine whether there is a role for vaccination in this outbreak and will provide updated recommendations if needed.

Additional information from the Centers for Disease Control and Prevention about *N. meningitidis* infection and meningococcal vaccines can be found at the following urls:

<http://www.cdc.gov/meningococcal/index.html> and <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6003a3.htm>

To report a suspect or confirmed case of meningococcal disease please call:

Business hours: 347-396-2600

Non-business hours: Call the Poison Control Center at 212-764-7667 (212-POISONS)

For information about meningococcal disease and vaccination, call the Provider Access Line: 866-NYC-DOH1 (1-866-692-3641)

We greatly appreciate our partnership with healthcare providers in NYC in reporting and investigating unusual disease manifestations or clusters.

Sincerely,

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Chemoprophylaxis recommendations for Close Contacts to People with Invasive Meningococcal Disease

(Source: American Academy of Pediatrics. *Red Book: 2012 Report of the Committee on Infectious Diseases*. Pickering LK, ed. 29th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2012).

Age of Infants, Children, and Adults	Dose	Duration	Efficacy, %	Cautions
Rifampin^a				
<1 mo	5 mg/kg, orally, every 12 h	2 days		
≥1 mo	10 mg/kg (maximum 600 mg), orally, every 12 h	2 days	90–95	Can interfere with efficacy of oral contraceptives and some seizure and anticoagulant medications; can stain soft contact lenses
Ceftriaxone				
<15 y	125 mg, intramuscularly	Single dose	90–95	To decrease pain at injection site, dilute with 1% lidocaine
≥15 y	250 mg, intramuscularly	Single dose	90–95	To decrease pain at injection site, dilute with 1% lidocaine
Ciprofloxacin^{a,b}				
≥1 mo	20 mg/kg (maximum 500 mg), orally	Single dose	90–95	Not recommended routinely for people younger than 18 years of age; use may be justified after assessment of risks and benefits for the individual patient
Azithromycin	10 mg/kg (maximum 500 mg)	Single dose	90	Not recommended routinely; equivalent to rifampin for eradication of <i>Neisseria meningitidis</i> from nasopharynx in one study
<p>^a Not recommended for use in pregnant women.</p>				
<p>^b Use only if fluoroquinolone-resistant strains of <i>N meningitidis</i> have not been identified in the community; Centers for Disease Control and Prevention. Emergence of fluoroquinolone-resistant <i>Neisseria meningitidis</i>—Minnesota and North Dakota, 2007–2008. <i>MMWR Morb Mortal Wkly Rep.</i> 2008;57(7):173–175.</p>				