NEW YORK STATE OF OPPORTUNITY. Department of Health

KATHY HOCHUL
Governor

JAMES V. McDONALD, M.D., M.P.H.
Commissioner

JOHANNE E. MORNE, M.S.
Executive Deputy Commissioner

NYC Health

NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Ashwin Vasan, MD, PhD
Commissioner

DATE: 08/14/2024

TO: Healthcare Providers, Long Term Care Facilities, Healthcare Facilities, Clinical Laboratories, and Local Health Departments

FROM: New York State Department of Health (NYSDOH), New York City Department of Health and Mental Hygiene (NYC Health Department)

PROVIDER ADVISORY

Discontinue Use of Ciprofloxacin for Invasive Meningococcal Disease Post-Exposure Prophylaxis

Please distribute immediately to: Clinical Laboratories, Hospitals, Long Term Care Facilities, Local Health Departments, Physicians, Physician Assistants, Nurses, Nurse Practitioners, Emergency Medicine, Infectious Disease, Infection Prevention and Control, Epidemiology, Laboratory Medicine, Medical Directors, Directors of Nursing, and all patient care areas

Summary

- Due to increasing antimicrobial resistance, health care providers should discontinue the use of ciprofloxacin as post-exposure prophylaxis for close contacts of patients with invasive meningococcal disease in New York.
    - Prescribe rifampin or ceftriaxone as post-exposure prophylaxis instead. Azithromycin may also be used as an alternative.
- Treatment recommendations for suspected or confirmed invasive meningococcal disease have not changed.
    - Start appropriate antibiotics (e.g., a third-generation cephalosporin) as soon as invasive meningococcal disease is suspected.
- Immediately report patients with suspected or confirmed invasive meningococcal disease to the local health department where the patient lives.
- Ensure that all people for whom meningococcal vaccination is recommended are up to date on meningococcal vaccination.

This advisory provides important updates on post-exposure prophylaxis for invasive meningococcal disease, a rare but severe infection caused by *Neisseria meningitidis* that can present with meningitis, blood stream infection, septic arthritis, or pneumonia. **In the United States, approximately 10-15% of cases are fatal.** Providing antibiotic post-exposure prophylaxis to close contacts of people with invasive meningococcal disease is an essential disease prevention strategy.

Ciprofloxacin has been a first-line agent for invasive meningococcal disease post-exposure prophylaxis; however, due to increasing rates of ciprofloxacin resistance among invasive meningococcal disease cases, providers should discontinue use of ciprofloxacin as post-exposure prophylaxis for close contacts of people with invasive meningococcal disease in New York state.

Four of 20 (20%) *N. meningitidis* isolates collected from patients with invasive meningococcal disease residing in New York State but outside New York City (NYC) were resistant to ciprofloxacin in 2023. In NYC, six of the 35 (17%) isolates from patients diagnosed with invasive meningococcal disease during July 23, 2023-July 22, 2024 were ciprofloxacin resistant. These ciprofloxacin-resistant infections were caused by multiple *N. meningitidis* serogroups.

The number and proportion of patients diagnosed with ciprofloxacin-resistant invasive meningococcal disease in New York has approached the U.S. Centers for Disease Control and Prevention (CDC)-recommended threshold for discontinuing ciprofloxacin post-exposure prophylaxis in a local catchment area (at least 2 patients **and** 20% of patients) to prevent prophylaxis failure. The CDC recommendations state that health departments may use a lower threshold based on factors including local epidemiologic patterns. We recommend discontinuing ciprofloxacin post-exposure prophylaxis now due to the recent increase in ciprofloxacin resistance among patients diagnosed with invasive meningococcal disease in the context of increasing ciprofloxacin resistance nationwide and around the world.

Rifampin or ceftriaxone remain first-line options for meningococcal disease post-exposure prophylaxis. Azithromycin may also be used; it is considered an alternative option because its use for prophylaxis of close contacts is not as well studied as the use of ceftriaxone or rifampin for this purpose.

Post-exposure prophylaxis is recommended for close contacts of people with invasive meningococcal disease, regardless of the contact's vaccination status. Post-exposure prophylaxis should be initiated within 24 hours of finding out about the exposure; it is effective when given within 14 days of being exposed to a suspected or confirmed case.

Treatment recommendations for suspected or confirmed meningococcal disease have **not** changed. Recommended agents include cefotaxime or ceftriaxone. It is crucial to start empiric antibiotic treatment promptly when invasive meningococcal disease is suspected. Do not wait for diagnostic test results.

Confirmed or suspected invasive meningococcal disease is reportable to the local health department (LHD) of the county in which the patient resides.

- Outside of NYC, contact information for LHDs is available at: https://www.health.ny.gov/contact/contact_information. If unable to reach the LHD where the patient resides, contact the NYSDOH Bureau of Communicable Disease Control at 518-473-4439.
- For NYC residents, report to the NYC Health Department's Provider Access Line at 866-692-3641.

Because vaccination is another crucial tool for preventing invasive meningococcal disease, ensure that your patients, including adolescents and people living with HIV, are up to date on recommended meningococcal vaccination.

NYSDOH and the New York City Health Department will continue to monitor the epidemiology and antibiotic susceptibility of invasive meningococcal disease and will update providers when additional important information becomes available.

Recommended Post-Exposure Prophylaxis Regimens for High-Risk Contacts of People with Invasive Meningococcal Disease in New York State, Updated 8/14/24

Drug	Age	Dose	Duration	Other Considerations
Rifampin	<1 month	5 mg/kg, orally, every 12 hours	2 days	Consider consultation with a pediatric infectious disease expert for infants <1 month.
	≥1 month	10 mg/kg (maximum 600 mg), orally, every 12 hours	2 days	Can interfere with efficacy of oral contraceptives and some seizure prevention and anticoagulant medications; may stain soft contact lenses. Not recommended for pregnant people.
Ceftriaxone	<15 years	125 mg, intramuscularly	Single dose	To decrease pain at injection site, dilute with 1% lidocaine.
	≥15 years	250 mg, intramuscularly	Single dose	
Azithromycin	All Ages	10 mg/kg (maximum 500 mg)	Single dose	Alternative agent. In one study, equivalent to rifampin for eradication of ***N. meningitidis*** from nasopharynx.

Adapted from Table 1. CDC. Manual for the Surveillance of Vaccine-Preventable Diseases. Chapter 8: Meningococcal Disease

References and Additional Information:

Berry I, Rubis AB, Howie RL, et al. Selection of Antibiotics as Prophylaxis for Close Contacts of Patients with Meningococcal Disease in Areas with Ciprofloxacin Resistance – United States, 2024. *MMWR Morb Mortal Wkly Rep.* 2024;73:99–103. DOI: http://dx.doi.org/10.15585/mmwr.mm7305a2.

Centers for Disease Control and Prevention. Increase in Invasive Serogroup Y Meningococcal Disease in the United States. Health Alert Network Health Advisory. 2024, CDCHAN-00505. https://emergency.cdc.gov/han/2024/han00505.asp

McNamara LA, Potts C, Blain AE, et al. Detection of Ciprofloxacin-Resistant, β-Lactamase–Producing *Neisseria meningitidis* Serogroup Y Isolates — United States, 2019–2020. *MMWR Morb Mortal Wkly Rep*. 2020;69:735–739. DOI: http://dx.doi.org/10.15585/mmwr.mm6924a2.

CDC's Meningococcal Disease Information for Providers:

- Clinical information Meningococcal Disease
- Meningococcal Vaccination: Information for Healthcare Professionals
- Meningococcal Vaccination Information for Individuals with HIV