SAN MATEO COUNTY HEALTH

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HEALTH ADVISORY:

Updated Recommendations for Invasive Meningococcal Disease (IMD) Post-Exposure Prophylaxis (PEP)

Updated February 29, 2024

This advisory is intended for emergency medicine, urgent care providers, infectious disease, primary care, internal medicine, family practice, pediatric, and OB/GYN providers. Please distribute as appropriate.

Key Message:

Ciprofloxacin-resistant strains of *Neisseria meningitidis* have been increasing in recent years and ciprofloxacin may no longer be the best choice for PEP for close contacts. As a consequence, **we recommend that clinicians carefully assess the case's travel history** as it will impact the choice of appropriate PEP for IMD. As a reminder, the incubation period is usually less than 4 days, but can range from 1 to 10 days.

Background:

Invasive meningococcal disease (IMD) is a rare but serious condition. During the 5-year period from 2016–2020, 24 to 80 cases occurred yearly in California. Of note, ciprofloxacin-resistant strains of *Neisseria meningitidis* have been increasingly reported. In the last 12 months, there have been two reported cases of ciprofloxacin-resistant IMD in Northern California, one in the Bay Area and one in the Sacramento region. Note that resistance to ceftriaxone, the first-line antibiotic recommended for IMD **treatment**, has not been detected to date.

In May 2023, CDC issued public health guidance and recommended to discontinue use of ciprofloxacin post-exposure prophylaxis (PEP) in close contacts exposed to IMD cases in any geographic area where over a rolling 12-month period, two or more IMD cases caused by ciprofloxacin-resistant strains are reported, and cases caused by ciprofloxacin-resistant strains make up at least 20% of all reported IMD cases.

The Bay Area and Sacramento regions, as a combined geographic area, now meet these criteria. In January 2024 the California Department of Public Health (CDPH) updated its guidance, and is now recommending to **stop using ciprofloxacin as PEP** for close contacts exposed to IMD cases that occur in the Bay Area and Sacramento area.

Recommendations:

1. **Immediately report all suspected and laboratory-confirmed cases of IMD** to the Communicable Disease Control Program at (650) 573-2346. After hours, follow instructions to contact the on-call Health Officer. We will assist with identification of all close contacts and PEP recommendations.

2. Due to the detection of ciprofloxacin-resistant strains of *Neisseria meningitidis*, **we recommend that clinicians carefully assess the case's travel history** as it will impact the choice of appropriate PEP for IMD.
    - If the infection was acquired *outside* the Bay Area or Sacramento regions, then ciprofloxacin generally remains the drug of choice for the contacts' post-exposure prophylaxis. Dosing recommendations are available in the CDPH Meningococcal Disease Quicksheet.
    - If the infection was acquired *in the Bay Area or Sacramento regions*, then ciprofloxacin should NOT be used for the contacts' post-exposure prophylaxis. In that case, rifampin or ceftriaxone should be used instead of ciprofloxacin.
    - If it is *unclear* where the infection was acquired (i.e., the case spent part of the exposure period in the Bay Area or Sacramento regions and part of the exposure period outside of those areas) then ciprofloxacin should NOT be used. In that case, rifampin or ceftriaxone should be used instead of ciprofloxacin.
    - Please note that although azithromycin is an alternative, it is NOT routinely recommended for IMD PEP because it has not been as well studied.

3. **Clinicians should always request antimicrobial susceptibility testing (AST) of *Neisseria meningitidis* isolates** at their medical facility's laboratory to help guide clinical treatment if such testing is available. If it is not available, the Communicable Disease Control Program will assist with the transfer of meningococcal isolates to a laboratory for AST, but the results will not generally be available in time to guide treatment decisions.
    - Please note that resistance to ceftriaxone, the first-line antibiotic recommended for IMD treatment, has not been detected. **No changes to empiric treatment of IMD are recommended at this time**.

Resources:

CDC Meningococcal Disease: https://www.cdc.gov/meningococcal/index.html
CDC Meningococcal Vaccines: https://www.cdc.gov/vaccines/vpd/mening/index.html
CDC Threshold for Changing Meningococcal Disease Prophylaxis Antibiotics in Areas with Ciprofloxacin Resistance: https://www.cdc.gov/meningococcal/outbreaks/changing-prophylaxis-antibiotics.html
CDPH Meningococcal Disease: https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/meningococcal.aspx

CDPH Meningococcal Quicksheet:
https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Immunization/IMM-MeningQuicksheet.pdf

Recommended Chemoprophylaxis Regimens when Ciprofloxacin Cannot be Used:

Age	Dose	Duration	Efficacy	Cautions/Notes
Rifampin[a]				
<1 month	5 mg/kg, every 12 h, po	2 days		Discussion with an expert for infants <1 month of age.
≥1 month	10 mg/kg (maximum 600 mg), every 12 h, po	2 days	90–95%	Can interfere with efficacy of oral contraceptives and some seizure and anticoagulant medications; can stain soft contact lenses.
Adult	600 mg every 12 h, po	2 days	90–95%	
Ceftriaxone				
<15 years	125 mg, intramuscularly	Single dose	90–95%	To decrease pain at injection site, dilute with 1% lidocaine.
≥15 years – Adult	250 mg, intramuscularly	Single dose	90–95%	To decrease pain at injection site, dilute with 1% lidocaine.
Azithromycin				
Pediatric	10 mg/kg (maximum 500 mg), po	Single dose	90%	Not recommended routinely; may be recommended in jurisdictions with ciprofloxacin-resistant *N. meningitidis* strains. Equivalent to rifampin for eradication of *N. meningitidis* from nasopharynx in one study of young adults.
Adult	500 mg, po	Single dose	90%	

Note: Penicillin is often appropriate as treatment but is NOT appropriate for chemoprophylaxis.
[a] Not recommended for use in pregnant women.

The Communicable Disease Control Program is available to help meet the reporting needs of, and answer questions for, San Mateo County providers. To report a disease or outbreak, please call 650-573-2346, Monday through Friday, 8:00 am to 5:00 pm, or fax a Confidential Morbidity Report (CMR) to 650-573-2919. You may download an electronic copy of the CMR at smchealth.org/cmr. Web-based reporting via CalREDIE is also available. Please contact us if you would like to know more about, and sign up for, web-based reporting. Non-urgent questions and/or general inquiries may be directed to SMCCDControl@smcgov.org.

Categories of urgency levels:
Health Alert: conveys the highest level of importance; warrants immediate action or attention.
Health Advisory: provides important information for a specific incident or situation; may not require immediate action.
Health Update: provides information regarding an incident or situation; unlikely to require immediate attention.