



**LAC DPH Health Advisory:
Meningococcal Disease—Ciprofloxacin
Resistance in Southern California and
Cases Linked to Travel to the Kingdom
of Saudi Arabia**



May 21, 2024

*This message is intended for primary care, emergency medicine, urgent care and infectious disease providers.
Please distribute as appropriate.*

Key Messages

- Ciprofloxacin should no longer be used in LA County for invasive meningococcal disease (IMD) post-exposure prophylaxis (PEP) due to resistance. Rifampin, ceftriaxone, or azithromycin are recommended for IMD PEP.
- The Centers for Disease Control and Prevention (CDC) is reporting cases of IMD linked to Umrah travel to the Kingdom of Saudi Arabia (KSA).
- Healthcare providers should ensure that patients age one year or older considering travel to perform Hajj or Umrah have received a MenACWY vaccine.
- Healthcare providers should have a heightened index of suspicion for IMD. Be aware that patients with IMD may present with bloodstream infection or septic arthritis and without symptoms typical of meningitis.
- Immediately report all patients suspected and confirmed to have IMD to LA County Department of Public Health (LAC DPH) by calling 213-240-7941. After hours call 213-974-1234.

Situation

Ciprofloxacin-resistant Neisseria meningitidis

Ciprofloxacin-resistant strains of *Neisseria meningitidis* have been increasing both nationally and internationally in recent years. In the last 12 months, there have been eight reported cases of ciprofloxacin-resistant IMD: two in northern California and six in southern California, including two in LA County.

In February 2024, the CDC issued [guidance](#) on threshold criteria for discontinuing use of ciprofloxacin for PEP in areas with ciprofloxacin resistance. The California Department of Public Health (CDPH) has determined that the southern California region now meets the resistance threshold criteria. **Ciprofloxacin should no longer be used**

for IMD PEP in LA County (Pasadena and Long Beach included). The updated CDPH [IMD PEP](#) recommendations also apply to the following southern California counties: Imperial, Kern, Orange, Riverside, San Bernadino, San Diego, San Luis Obispo, Santa Barbara and Ventura Counties.

Meningococcal Disease Cases Linked to Travel to the Kingdom of Saudi Arabia

The CDC issued a [Health Advisory](#) yesterday to alert healthcare providers to cases of IMD linked to Umrah travel to the Kingdom of Saudi Arabia (KSA). Umrah is an Islamic pilgrimage to Mecca, KSA that can be performed any time in the year. The Hajj is an annual Islamic pilgrimage that is taking place June 14–19, 2024. The CDC reports that since April 2024, 12 cases of IMD linked to KSA travel for Umrah have been reported to national public health agencies in the United States (5 cases), France (4 cases), and the United Kingdom (3 cases). Ten cases were in patients who traveled to KSA, and two were in patients who had close contact with travelers to KSA. Ten cases were caused by *Neisseria meningitidis* serogroup W (NmW), one U.S. case was caused by serogroup C (NmC), and the serogroup is unknown for one U.S. case. Of nine patients with known vaccination status, all were unvaccinated. The isolates from the one U.S. NmC case and two NmW cases (one U.S., one France) were resistant to ciprofloxacin; based on whole genome sequencing, the remaining eight NmW isolates were all sensitive to penicillin and ciprofloxacin.

In addition, CDC recently issued this Health Advisory [Increase in Invasive Serogroup Y Meningococcal Disease in the United States](#) (March 28, 2024).

Actions Requested of Providers

- **Report all suspected and laboratory confirmed cases of IMD to Public Health immediately** (see Reporting). LAC DPH will assist with identification of close contacts and provide PEP recommendations to contacts of the case in LA County.
- **Maintain a heightened index of suspicion for meningococcal disease.** Be aware that patients with IMD may present with bloodstream infection or septic arthritis and without symptoms typical of meningitis (e.g., headache, stiff neck). Given the recent cases linked to travel to KSA, be especially vigilant for possible IMD among recent travelers from KSA and their close contacts.
- **Treat suspected cases of IMD immediately.** Do not wait for laboratory tests. [Empiric therapy for suspected IMD](#) is unchanged and should include an extended-spectrum cephalosporin such as cefotaxime or ceftriaxone.
- **Order antimicrobial susceptibility testing (AST) of *Neisseria meningitidis*,** if such testing is available. Monitoring antimicrobial resistance among

meningococcal isolates is essential to support the need for additional updates to PEP recommendations.

- **PEP should be given to close contacts of IMD cases as early as possible after exposure**, regardless of immunization status. Rifampin, ceftriaxone, or azithromycin are recommended for PEP (see table with regimens below). *Ciprofloxacin should no longer be used for IMD PEP.* Close contacts include household members and roommates, contacts in childcare settings, and persons exposed directly to patient’s oral secretions in the seven days before symptom onset.
- **Recommend vaccination with MenACWY vaccine** for people considering travel to KSA to perform Hajj or Umrah in addition to routine meningococcal vaccination for adolescents and other people at increased meningococcal disease risk. See CDC [Meningococcal Vaccine Recommendations](#).

Recommended IMD Post-Exposure Prophylaxis Regimen:

Medication	Age	Dose	Duration	Notes
Rifampin	<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	Can interfere with efficacy of oral contraceptives and some seizure and anticoagulant medications; can stain soft contact lenses. Not recommended for use in pregnant people.
	Adult	600mg every 12 h, po		
Ceftriaxone	<15 years	125 mg, IM	Single dose	To decrease pain at injection site, dilute with 1% lidocaine.
	≥15 years – Adult	250 mg, IM		
Azithromycin	Pediatric	10 mg/kg (maximum 500 mg), po	Single dose	Equivalent to rifampin for eradication of <i>N. meningitidis</i> from nasopharynx in one study of young adults.
	Adult	500mg, po		

Reporting

Healthcare providers and laboratories must report all patients suspected and confirmed to have IMD to LAC DPH immediately. Suspect cases include those with clinical suspicion of IMD or evidence of gram-negative diplococci on gram stain. Laboratory confirmation is not required to report.

LAC DPH Acute Communicable Disease Control:

- Weekdays 8:30am–5pm: call 213-240-7941.
- After-hours: call 213-974-1234 and ask for the physician on call.

Long Beach Health and Human Services:

- Weekdays 8am-5pm: call 562-570-4302.
- After hours: call the duty officer at 562-500-5537.

Pasadena Public Health Department:

- Weekdays 8am-5pm: call 626-744-6089.
- After hours: call 626-744-6043.

Additional Meningitis Resources

CDC

- Health Advisory (5-20-24): [Meningococcal Disease Cases Linked to Travel to the Kingdom of Saudi Arabia \(KSA\): Ensure Pilgrims are Current on Meningococcal Vaccination](#)
- Health Advisory (3-28-24): [Increase in Invasive Serogroup Y Meningococcal Disease in the United States](#)
- [Public Health Strategies for Antibiotic-resistant *Neisseria meningitidis*](#)
- [Meningococcal Disease](#)
- [Meningococcal Vaccine Recommendations](#)

LAC DPH

- Providers are encouraged to call LAC DPH Acute Communicable Disease Control Program with questions regarding IMD: 213-240-7941 and the Vaccine Preventable Disease Control Program regarding meningococcal vaccine recommendations: 213-351-7800.
- [Meningitis and Meningococcal Disease](#)

CDPH

- [Meningococcal Disease](#)
- [Quicksheet](#)

This Advisory was sent by Dr. Sharon Balter, Chief, Acute Communicable Disease Control Program, Los Angeles County Department of Public Health.

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