

Oregon Public Health Division
Model Standing Orders for Chemoprophylaxis to
Prevent Meningococcal Disease in Case Contacts

Order:

1. Determine whether contact has had a significant exposure to an infectious case;
2. Screen for contraindications to antibiotics, and possible drug interactions;
3. Provide patient with meningococcal disease fact sheet;
4. Dispense prophylactic antibiotics as outlined on pages 3-4.

Signature of Health Officer

Date

How Contagious is Meningococcal Disease?

Transmission is by direct exposure to droplets or direct contact with discharges from the nose or throat of a colonized person—symptomatic or otherwise. It is important to distinguish colonization from disease. Close contacts of cases (e.g. household members or day-care contacts) are at increased risk of becoming infected and developing illness. Risk of disease in close contacts is highest during the 10-day period following onset of illness of the case; however, an elevated risk may extend for up to 60 days.

Persons are infectious as long as *Neisseria meningitidis* bacteria are present in discharge from the nose or pharynx. Cases are probably most infectious during the 3 days prior to onset of symptoms, and are considered no longer communicable 24 hours after initiation of treatment with appropriate antibiotics. Those exposed 7 or more days before onset of illness in the case are not at significantly increased risk. Depending on the antimicrobials used, therapy for invasive disease may *not* eradicate the organism from the nasopharynx, and chemoprophylaxis may also be required.

Who should get prophylaxis?

Oregon public health officials currently recommend that persons who have had *significant* exposure to the case during the communicable period receive prophylaxis. These include:

1. All persons who have spent *at least* 4 hours (cumulatively, within one week of index patient's onset) in close, face-to-face association with the case, thereby increasing the risk of droplet transmission (e.g., household members, day-care contacts, cellmates); or
2. Anyone directly exposed to the patient's nasopharyngeal secretions (e.g., via kissing, mouth-to-mouth resuscitation, intubation, or nasotracheal suctioning). Healthcare workers who have not had direct contact with the case's nasopharyngeal secretions are *not* at increased risk, and prophylaxis is not indicated for them.

Prophylaxis should be initiated as soon as possible. If more than 14 days have passed since the last contact with the index patient, chemoprophylaxis is likely to be of little benefit.

Prophylaxis should not be recommended to persons who have had only brief or casual contact with the case. If such persons are anxious about their exposure, they should be advised that their risk of disease is extremely low. In addition, they should be advised to be alert to signs and symptoms of illness, especially fever, and to seek medical care immediately should illness develop.

Which drugs should be used for prophylaxis?

Before dispensing any medications, the patient should be asked about allergies to drugs, including antibiotics; pregnancy (adolescent and adult females); whether they are nursing (women); and about current medications (to assess for possible drug interactions).

Rifampin is the drug of choice in most instances. However, *rifampin is not recommended for pregnant women*. The rifampin dosages are as follows:

- Persons ≥ 18 years of age: 600 mg twice daily for two days;
- Children ≥ 1 month of age: 10 mg/kg twice daily (maximum 600 mg/dose) for two days;
- Children < 1 month of age: 5 mg/kg twice daily for two days.

Rifampin is available in 150 mg and 300 mg capsules. It can be mixed with several teaspoons of applesauce or jelly, or suspended in a simple syrup (Syrup NF, Wild Cherry Syrup, etc.), following the manufacturer's instructions. Side effects include: gastrointestinal upset; orange discoloration of urine, sweat, and tears; discoloration of soft contact lenses; and decreased effectiveness of oral contraceptives can occur. Rifampin is ~90% effective in eradicating meningococcal carriage.

If contacts meeting prophylaxis guidelines have been advised *by the local health department* to take rifampin, *and* they are unable to obtain rifampin by *any other means* due to financial circumstances, then the LHD may dispense rifampin out of its TB stock after consulting with the TB Program or Public Health Division epidemiologist on call. The LHD must then send a memo to the state TB program describing the circumstances, accounting for the rifampin dispensed and requesting replacement of stock.

Ceftriaxone can be used for children and adults (including pregnant women) to eradicate nasopharyngeal carriage if rifampin is contraindicated. Dosages are:

- Children ≤ 15 years of age: a single IM dose of 125 mg;
- Persons ≥ 15 years of age: a single IM dose of 250 mg.

Ciprofloxacin can be used for chemoprophylaxis of persons ≥ 18 years of age, administered orally in a single 500 mg dose. Ciprofloxacin is not recommended for pregnant women or for patients taking theophylline.

References

For printable versions of Oregon's Meningococcal Disease Investigative Guidelines and fact sheets for patients, see:

<http://public.health.oregon.gov/DiseasesConditions/DiseasesAZ/Lists/Diseases%20AZ%20List/item.aspx?ID=51>

For recommendations of the CDC Advisory Committee on Immunization Practices (ACIP) see: Centers for Disease Control and Prevention. Control and prevention of meningococcal disease and control and prevention of serogroup C meningococcal disease: Evaluation and management of suspected outbreaks. MMWR 1997;46(RR-5): 1-21. Accessible at:

<http://www.cdc.gov/MMWR/PDF/rr/rr4605.pdf>

While not explicitly endorsed by us, there are a number of web sites where you can assess for specific drug interactions including: www.drugs.com/drug_interactions.html

Update Log

Sept. 2011 Sulfadiazine removed as alternate agent. Web links updated (Dr. Richard Leman)