

Putting Prevention into Practice

An Evidence-Based Approach

Ocular Prophylaxis for Gonococcal Ophthalmia Neonatorum

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► See related U.S. Preventive Services Task Force Recommendation Statement on page 195.



This clinical content conforms to AAFP criteria for evidence-based continuing medical education (EB CME). See CME Quiz on page 114.

The case study and answers to the following questions on ocular prophylaxis for gonococcal ophthalmia neonatorum are based on the recommendations of the U.S. Preventive Services Task Force (USPSTF), an independent panel of experts in primary care and prevention that systematically reviews the evidence of effectiveness and develops recommendations for clinical preventive services. More detailed information on this subject is available in the USPSTF Recommendation Statement, the evidence update, and the clinical summary on the USPSTF Web site (<http://www.uspreventiveservicestaskforce.org>). The practice recommendations in this activity are available at <http://www.uspreventiveservicestaskforce.org/uspstf/uspsgonnew.htm>.

A collection of Putting Prevention into Practice quizzes published in *AFP* is available at <http://www.aafp.org/afp/ppip>.

Case Study

You are called to an emergent but uncomplicated spontaneous vaginal delivery at 38 weeks' gestation. The mother is 19 years of age, with a history of heroin use and multiple sex partners. She has not received medical care for the past few years.

Case Study Questions

1. According to the U.S. Preventive Services Task Force (USPSTF), what is the primary indication for providing this newborn with prophylaxis for gonococcal ophthalmia neonatorum?

- ☐ A. Lack of prenatal care.
- ☐ B. Maternal risk of sexually transmitted infection.
- ☐ C. Maternal history of heroin use.
- ☐ D. Maternal age.
- ☐ E. All newborns should receive prophylaxis for gonococcal ophthalmia neonatorum.

2. Which one of the following ocular regimens is approved by the U.S. Food and Drug Administration for the prevention of gonococcal ophthalmia neonatorum?

- ☐ A. Erythromycin 0.5% ophthalmic ointment.
- ☐ B. Tetracycline 1.0% ophthalmic ointment.
- ☐ C. Silver nitrate 1.0% drops.
- ☐ D. Ciprofloxacin 0.3% solution.
- ☐ E. Povidone-iodine 2.5% solution.

3. What are the potential complications of untreated gonococcal ophthalmia neonatorum?

- ☐ A. Ocular perforation.
- ☐ B. Amblyopia.
- ☐ C. Corneal scarring.
- ☐ D. Blindness.

Answers appear on the following page.

Putting Prevention into Practice

Answers

1. **The correct answer is E.** The USPSTF recommends universal prophylaxis for gonococcal ophthalmia neonatorum in newborns. There is high certainty that the net benefit is substantial. There is convincing evidence that blindness due to gonococcal ophthalmia neonatorum has become rare in the United States since the implementation of universal prophylaxis, and that universal prophylaxis of newborns is not associated with serious harms. Some newborns are at increased risk of gonococcal ophthalmia neonatorum, including those with a maternal history of sexually transmitted infections, substance abuse, or lack of prenatal care. Maternal age is not an independent risk factor.

2. **The correct answer is A.** Prophylactic regimens using tetracycline 1.0% or erythromycin 0.5% ophthalmic ointment are equally effective in the prevention of gonococcal ophthalmia neonatorum; however, the only drug approved by the U.S. Food and Drug Administration for this indication is erythromycin 0.5% ophthalmic ointment. Prophylaxis should be provided within 24 hours after birth. Tetracycline ophthalmic ointment and silver nitrate drops are no longer available in the United States. Ciprofloxacin is not indicated for the treatment of gonococcal ophthalmia neonatorum. A 2.5% solution of povidone-iodine may be useful in preventing ophthalmia neonatorum, but it has not been approved for use in the United States.

3. **The correct answers are A, C, and D.** Gonococcal ophthalmia neonatorum develops in approximately 28 percent of newborns delivered to women with gonorrheal disease in the United States. Identifying and treating the infection are important because gonococcal ophthalmia neonatorum can result in corneal scarring, ocular perforation, and blindness. Amblyopia is not associated with gonococcal ophthalmia neonatorum.

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SOURCES

Ocular prophylaxis for gonococcal ophthalmia neonatorum: U.S. Preventive Services Task Force reaffirmation recommendation statement. AHRQ publication no. 10-05146-2. Rockville, Md.: Agency for Healthcare Research and Quality; July 2011. <http://www.uspreventiveservicestaskforce.org/uspstf10/gonoculproph/gonocuprs.htm>.

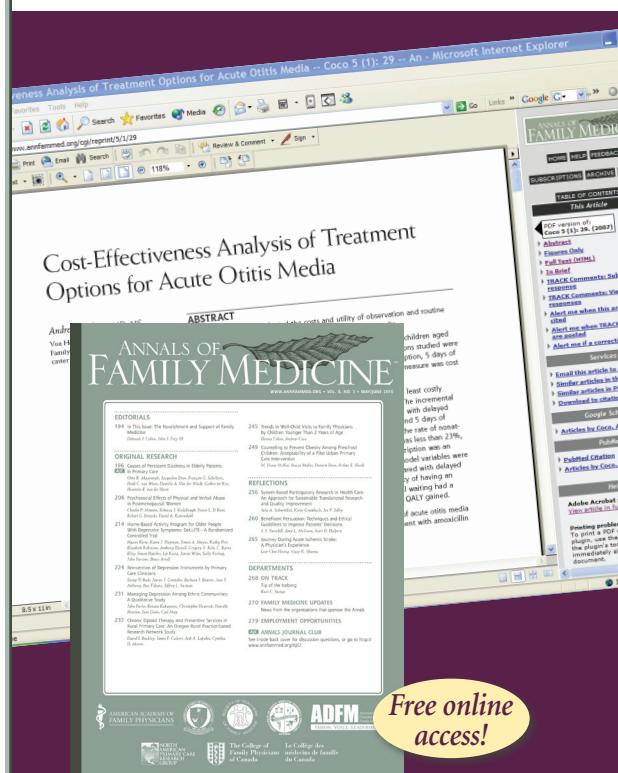
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