

A 13-day-old full-term boy is brought to the physician by his mother for his 2-week well newborn visit. The infant was born at 38 weeks gestation via normal spontaneous vaginal delivery. He had an uncomplicated labor and delivery course and was discharged home with his mother. He has since been growing and feeding well. The infant breastfeeds for 15 minutes on each side every 2 hours. His vital signs are normal. On examination, the anterior fontanelle is open, soft, and flat. Pupils are equal, round, and reactive to light. Mild swelling of the eyelids with conjunctival injection is present in both eyes. A scant amount of mucopurulent discharge is noted. The remainder of the examination is normal. A sample of the discharge is sent to the laboratory. Which of the following is the best next step in management of this patient?

- ☐ A. Administration of intravenous cefotaxime
- ☐ B. Administration of oral erythromycin
- ☐ C. Application of topical erythromycin ointment
- ☐ D. Application of topical silver nitrate
- ☐ E. Massage of the nasolacrimal ducts

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- ☐ A. Administration of intravenous cefotaxime [6%]
- ☒ B. Administration of oral erythromycin [38%]
- ☐ C. Application of topical erythromycin ointment [40%]
- ☐ D. Application of topical silver nitrate [4%]
- ☐ E. Massage of the nasolacrimal ducts [12%]

[Proceed to Next Item](#)**Explanation:**User Id: 

The most common etiologies of neonatal conjunctivitis in the United States are chlamydial, gonococcal, and chemical. These diagnoses may be differentiated clinically based on clinical presentation and physical examination findings (Table).

| Type | Onset age | Findings | Treatment |
|------------|-----------|--|--|
| Chemical | <24 hr | Mild conjunctival irritation/injection & tearing after silver nitrate ophthalmic prophylaxis | Eye lubricant |
| Gonococcal | 2-5 days | Marked eyelid swelling; profuse purulent discharge; corneal edema/ulceration | Intravenous or intramuscular ceftriaxone or cefotaxime |
| Chlamydial | 5-14 | Eyelid swelling; chemosis; watery, bloody, or purulent discharge | Oral erythromycin |

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Of these 3 most common causes, gonococcal conjunctivitis is the most destructive as it may result in corneal perforation and permanent blindness if left untreated.

This infant's clinical presentation and physical examination findings are most consistent with conjunctivitis secondary to *Chlamydia trachomatis*. He should be given oral erythromycin, the treatment of choice for both chlamydial conjunctivitis and pneumonia.

Although there is an increased risk of infantile hypertrophic pyloric stenosis in infants who receive oral erythromycin, none of the other macrolides (eg, azithromycin) are well studied for the treatment of chlamydial conjunctivitis.

(Choice A) Administration of intravenous or intramuscular ceftriaxone or cefotaxime is the treatment of choice for infants with gonococcal conjunctivitis (also known as ophthalmia neonatorum). Although both medications are effective for the treatment of this condition, ceftriaxone should be avoided in infants with hyperbilirubinemia as it results in displacement of bilirubin from albumin-binding sites, increasing the risk of kernicterus.

(Choice C) Topical erythromycin is not effective for the treatment of chlamydial

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(Choice A) Administration of intravenous or intramuscular ceftriaxone or cefotaxime is the treatment of choice for infants with gonococcal conjunctivitis (also known as ophthalmia neonatorum). Although both medications are effective for the treatment of this condition, ceftriaxone should be avoided in infants with hyperbilirubinemia as it results in displacement of bilirubin from albumin-binding sites, increasing the risk of kernicterus.

(Choice C) Topical erythromycin is not effective for the treatment of chlamydial conjunctivitis and does not eradicate nasopharyngeal carriage of the infection. **Topical erythromycin** is most appropriate for neonatal ophthalmic prophylaxis against gonococcal conjunctivitis and for treatment of other causes of bacterial conjunctivitis.

(Choice D) Application of topical silver nitrate is used for routine neonatal ophthalmic prophylaxis in some countries and, unlike topical erythromycin ointment, is effective prophylaxis against penicillinase-producing strains of *Neisseria gonorrhoeae*. Topical silver nitrate is not available in the United States given an increased risk of chemical conjunctivitis with its use.

(Choice E) Massage of the nasolacrimal ducts is the most appropriate treatment for infants with nasolacrimal duct obstruction, which typically presents with unilateral tearing with minimal conjunctival injection.

Educational objective:

Neonatal chlamydial conjunctivitis typically occurs at 5-14 days of life and presents with eyelid swelling, chemosis, and watery or mucopurulent discharge. Blood-stained eye discharge is highly characteristic of chlamydial conjunctivitis. First-line treatment is oral erythromycin.

References:

1. [Topical sulfacetamide vs oral erythromycin for neonatal chlamydial conjunctivitis.](#)
2. [Chlamydia trachomatis infections: screening, diagnosis, and management.](#)
3. [Treatment of chlamydial conjunctivitis.](#)