Care and Treatment Plan: Conjunctivitis – *Adult and Pediatric*

Definition

Inflammation and erythema of the conjunctiva, caused by hyperemia of tortuous superficial vessels secondary to infection (viral or bacterial) or allergic reaction (histamine).

Registered Nurses with **Remote Nursing** or **RN First Call** Certified Practice designation (RN(C)) are authorized to manage, diagnose, and treat children with conjunctivitis who are **6 months of age and older.**

Management and Intervention

Note: Review *Appendix A: Algorithm for Diagnosing the Cause of Red Eye*.

Goals of Treatment

- Relieve symptoms and resolution of infection
- Rule out more serious infections (e.g., uveitis)
- Prevent complications
- Prevent spread of infection to others

Non-pharmacologic Interventions

- Apply warm or cool compresses to eyes, lids and lashes QID for 15 minutes
- Clean eyelids gently of discharge with warm water and a disposable wipe such as cotton swab or tissue
- Avoid rubbing the eye(s)
- Health teaching of good hygiene practices (i.e., frequent handwashing, use of separate clean face cloth and towels)

Pharmacologic Interventions

Note: Never use steroid or steroid-and-antibiotic combination eye drops, because the infection may progress, or a corneal ulcer may rapidly form and cause perforation.

Additional Pediatric Considerations

- Many pediatric drug doses are calculated by weight
- Topical eye drops and eye ointments may be used as listed below
- Pediatric doses should not exceed recommended adult doses

Bacterial Infection: Adult

Acute conjunctivitis is frequently self-limiting, and antibiotics are of limited benefit. It may be appropriate to hold antibiotics for two or three days and start therapy if no improvement or the condition worsens.

- Topical antibiotic eye drops or ointment: bacitracin-polymyxin B ophthalmic solution, 1 drop, every 3 to 4 hours, for 5-7 days, or
- Sulfacetamide 10% ophthalmic solution, 1 to 2 drops, every 2 to 3 hours, for 5-7 days, or
- Bacitracin-polymyxin B eye ointment, 1cm ribbon, QID, for 5-7 days, or
- Erythromycin 0.5% eye ointment, 1cm ribbon, QID, for 5-7 days, or
- Moxifloxacin 0.5% drops, 1 drop TID for 7 days (for treatment of pseudomonas)

Bacterial Infection: Pediatrics

Acute conjunctivitis is frequently self-limiting, and antibiotics are of limited benefit. It may be appropriate to hold antibiotics for two or three days and start therapy if no improvement or the condition worsens.

- Topical antibiotic eye drops or ointment treatment options for children greater than 1 year of age:

- Gramicidin-polymyxin B ophthalmic solution, 1 drop, every 3 to 4 hours, for 5-7 days, or
- Sulfacetamide 10% ophthalmic solution, 1 to 2 drops, every 2 to 3 hours, for 5-7 days, or
- Bacitracin-polymyxin B eye ointment, 1cm ribbon, QID, for 5-7 days, or
- Erythromycin 0.5% eye ointment, 1cm ribbon, QID, for 5-7 days, or
- Moxifloxacin 0.5% drops, 1 drop TID for 7 days (for treatment of pseudomonas)

Note: Eye ointment may be preferred for younger children and infants.

An antibiotic eye *ointment* may be used at bedtime in addition to the daytime antibiotic eye *drops* PRN:

- Erythromycin 0.5% eye ointment for 5-7 nights at bedtime**, or**
- Bacitracin-polymyxin ointment for 5-7 nights at bedtime.

Note: If the infection has been determined to be due to chlamydia or gonorrhea, systemic treatment is required and topical treatment is not necessary. Please refer to the appropriate STI DST.

Viral Infection: Adult and Pediatrics

- Artificial tears or cool compresses often provide excellent symptomatic relief (antibiotics are not indicated)
  - Artificial tears, 1 or 2 drops PRN

Allergic Response: Adult

- Artificial tears or cool compresses often provide excellent symptomatic relief (antibiotics are not indicated)
  - Artificial tears, 1 or 2 drops PRN
- Oral antihistamines may be tried if symptoms are severe. Most common side effects are drowsiness, dry mouth, and fatigue. Use with caution in elderly clients and in clients with known hepatic or renal dysfunction.
  - Cetirizine 10mg tab, 1 PO daily, or
  - Loratadine 10mg tab, 1 PO daily, or
  - Desloratadine 5mg tab, 1 PO daily
- Topical antihistamine eye drops are recommended if symptoms are not controlled by oral antihistamines or oral antihistamines cannot be tolerated:
  - Cromolyn Na 4% eye drops, 1-2 drops every 4-6 hrs

Allergic response: Pediatrics

- Artificial tears or saline washes and cool compresses often provide excellent symptomatic relief (antibiotics are not indicated)
  - Artificial tears, 1 or 2 drops PRN
- Oral antihistamines may be tried if symptoms are severe. Most common side effects are drowsiness, dry mouth, and fatigue:
  - Cetirizine (syrup 5mg/5 mL); Children 2-6 years of age, 5mL (1 teaspoon) once daily. For twice daily dosing, 2.5mL (one-half teaspoon) in the morning and 2.5mL (one-half teaspoon) of syrup in the evening; Children 6-12 years of age, 10mL (2 teaspoons) of syrup once daily. For twice daily dosing, 5mL (one teaspoon) in the morning and 5mL (one teaspoon) in the evening.

OR

  - Desloratadine (syrup 0.5mg/mL); Children 2 Through 5 Years of Age, 2.5mL (1.25mg) once a day, regardless of mealtime; Children 6 Through 11 Years of Age 5mL (2.5mg) once a day, regardless of mealtime; 12 years of age or older: 5mg PO daily

OR

- Loratadine: (Oral Solution 1mg/mL); Children 10 years of age and over (body weight greater than 30kg) 10mL (two teaspoonfuls) once daily; Children 2 through 9 years of age (body weight less than or equal to 30kg) 5mL (one teaspoonful) once daily.

- CLARITIN KIDS should not be administered to children between 2 and 12 years of age for longer than 14 days, unless recommended by a physician.
- For children 4 years and older, topical antihistamine eye drops are recommended if symptoms are not controlled by oral antihistamines or oral antihistamines cannot be tolerated:
  - Cromolyn Na 4% eye drops, 1-2 drops every 4-6 hrs

Pregnant and breastfeeding women & youth (dosing as above)

- Erythromycin eye ointment, polymyxin B gramicidin eye drops, bacitracin-polymyxin eye ointment, artificial tears, cromolyn Na, cetirizine and loratadine may be used as listed above.
- ONLY USE sulfacetamide if clearly needed
- DO NOT USE desloratadine

Potential Complications

- Spread of infection to other eye structures
- Spread of infection to others

Client Education/Discharge Information

Provide advice regarding

- The condition, timeline of treatment and expected course of disease process medications (dose, frequency, and instillation)
- Avoid using eye cosmetics during acute phase
- Contact lens wearers: discontinue wearing until condition is resolved
- Allergic form: recommend that client/child avoid going outside when pollen count is high. Protective glasses can be worn to prevent pollen from entering the eyes.

Provide infection control education regarding:

- Preventing the spread of infection, hand and eye hygiene. Wash hands often.
- Preventing contamination of the medication tube or bottle
- Not sharing eye drops, ointments, eye cosmetics, towels, or face cloths
- Discarding contaminated eye cosmetics which may harbor bacteria and cause recurrent infection
  - For infectious forms, if symptoms or work/school situation requires, recommend school or work restrictions until improved or there is no further discharge
  - Instruct client/care giver to wash pillowcases, sheets, linens often, in hot water

Additional Pediatric Considerations

  - For infectious forms, recommend school or day care restrictions until improved or there is no further discharge.

Monitoring and Follow-up

- Clients with moderate or severe symptoms should be seen for follow-up at 24 and 48 hours.
- Follow up appropriately in 2 or 3 days or sooner if symptoms do not improve.

Consultation and/or Referral

Consult a physician or nurse practitioner if:

- Condition deteriorates, symptoms persist despite treatment, or symptoms recur (see *Appendix 1*)
- The diagnosis is in doubt and significant ocular infections like uveitis, herpes, and gonorrhea cannot be ruled out
- There is associated trauma (e.g., blow and/or penetrating eye trauma or serious chemical injury) (high potential for referral)
- Serious chemical eye injury (high potential for referral)
- Visual acuity is decreased or deficit in colour vision
- Moderate or severe pain
- Atypical ocular exam
- The condition recurs frequently

Additional Pediatric Considerations

- Child is less than 6 months of age

Documentation

As per agency policy.

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More recent editions of any of the items in the References List may have been published since this DST was published. If you have a newer version, please use it.

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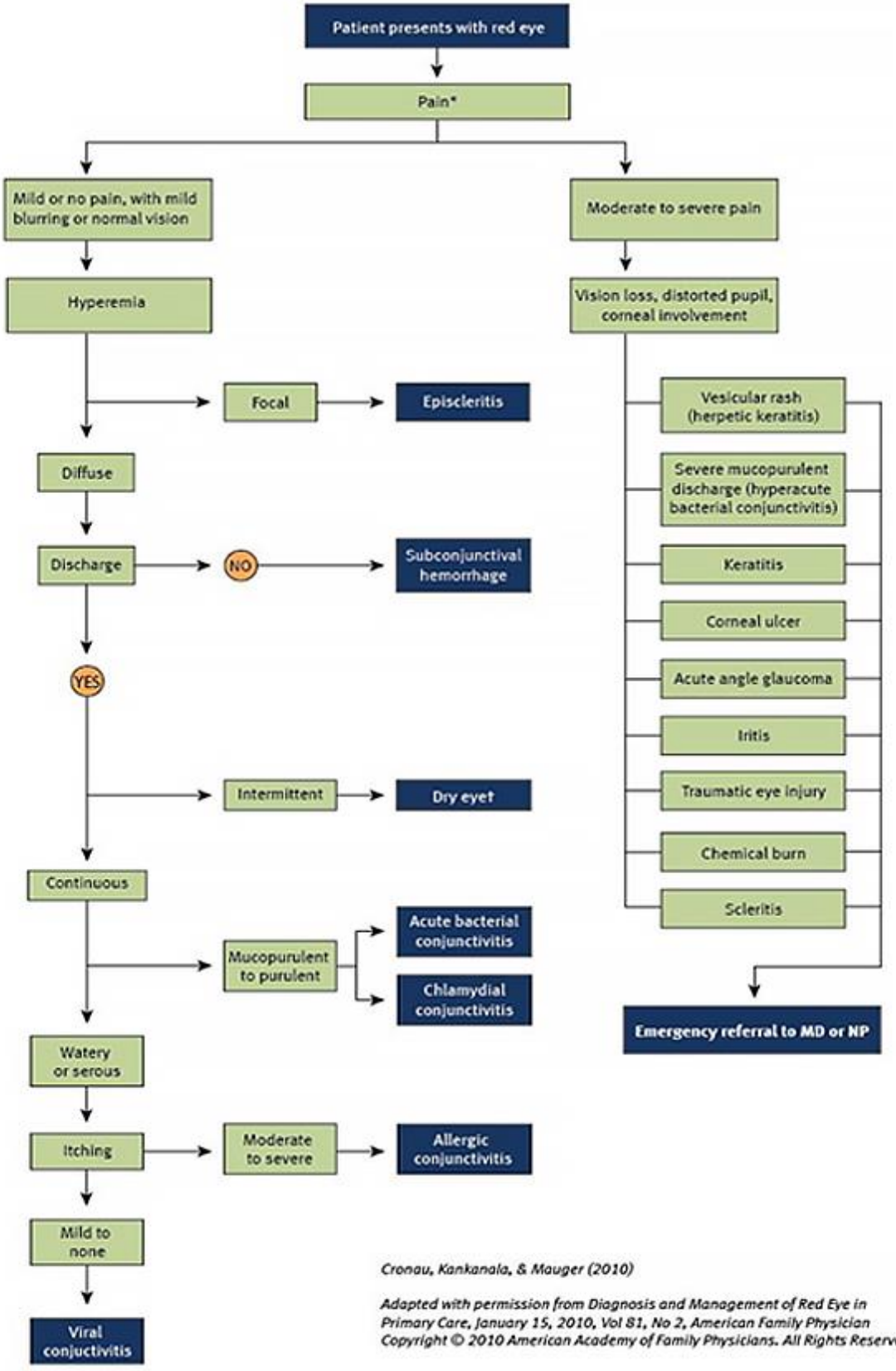
Appendix A

Algorithm for Diagnosing the Cause of Red Eye



Cronau, Kankanala, & Mauger (2010)

Adapted with permission from Diagnosis and Management of Red Eye in Primary Care, January 15, 2010, Vol 81, No 2, American Family Physician

NOTE:
Blepharitis, hordeolum, and chalazion are associated with localized red, swollen, tender eyelid; other symptoms are rare.

* -- patients with corneal abrasion may present with severe pain, but treated by a primary care physician.

† -- Paradoxical tearing of the eye.