

Long-term Care Formulary

AS-03

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### Conjunctivitis

Conjunctivitis (“inflammation of the conjunctiva”) is usually a benign, self-limiting condition that is typically easily treated. It is the most likely diagnosis in a patient with red eye and discharge. Treatment duration with antimicrobial products should be a maximum of 7 days.

Conjunctivitis can be either **infectious** or **non-infectious**, or which the various causes may be bacterial, viral, allergic, or non-allergic.

Infectious	
Bacterial	<ul style="list-style-type: none"> <li>- Spread by direct contact of secretions with contaminated objects/surfaces</li> <li>- Typically originates in one eye; eye may be “stuck shut”</li> <li>- Purulent discharge, thick and globular; yellow, white, or green</li> <li>- Discharge will appear spontaneously and continuously throughout the day</li> <li>- Common causative organisms: <i>S. aureus</i>, <i>S. pneumo</i>, <i>H. influenza</i>, <i>M. catarrhalis</i></li> </ul>
Viral	<ul style="list-style-type: none"> <li>- Mostly watery discharge, may be stringy and mucus like (rather than pus)</li> <li>- Discharge will not appear spontaneously and is less noticeable (in tear film or under the lower lid); usually results in profuse tearing</li> <li>- Described as grittiness, burning, or irritation</li> <li>- 2<sup>nd</sup> eye generally involved within 24-48 hours</li> <li>- May manifest as part of concurrent viral illness (e.g. pharyngitis, fever, URTI)</li> <li>- Self limiting process: worsening initial symptoms 3-5 days; complete resolution in 1-3 weeks</li> <li>- Common causes: adenovirus</li> </ul>
Non-Infectious	
Allergic	<ul style="list-style-type: none"> <li>- Caused by airborne allergens contacting the eye</li> <li>- Typically presents as bilateral redness, watery discharge, and itching</li> <li>- Primary complaint is itching (vs. grittiness); rubbing will worsen symptoms</li> <li>- Often have a history of allergies (seasonal or specific, e.g. cats)</li> </ul>

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Non-Allergic	<ul style="list-style-type: none"> <li>- Usually the result of transient mechanical or chemical insult</li> <li>- Discharge more likely mucus than pus</li> </ul>			

### Exclusions

Diagnosis of conjunctivitis can only be made if more serious conditions (e.g. closed angle glaucoma, keratitis, etc) or focal pathology (e.g. stye, blepharitis) can be ruled out.

### Laboratory Investigations

Culture and Sensitivity is generally **not** required for diagnosis of conjunctivitis, with the exception of suspected cases of *hyperacute conjunctivitis* where *N. gonorrhoea* may be suspected.

### General Approach to Therapy

All listed types of conjunctivitis (as above) are self-limited processes. Please note the specific treatment points as below:

Type	Treatment Points
Bacterial	<ul style="list-style-type: none"> <li>- Typical treatment length should be <b>5-7 days</b>; may consider reducing dosing frequency after initial 1-2 days</li> <li>- Therapeutic response should be seen after <b>1-2 days</b></li> <li>- Preferred agents: erythromycin, polymyxin, bacitracin</li> <li>- <i>Caution:</i> aminoglycoside may have toxic effects on epithelium</li> </ul>
Viral	<ul style="list-style-type: none"> <li>- <b>No specific antivirals</b> recommended</li> <li>- Ocular lubricants as needed for comfort</li> </ul>

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Non-infectious, allergic	<ul style="list-style-type: none"> <li>- For acute allergic conjunctivitis caused by known agents (e.g. cleaning products, cats), avoidance of allergen is the preferred action</li> <li>- <b>Ophthalmic antihistamines</b> (e.g. olopatadine, ketotifen) tend to have quicker onset of action, though maximum effect may not be expected for 1-2 weeks – <i>note that these are non-formulary agents available via NF process if required</i></li> <li>- <b>Mast cell stabilizers</b> (e.g. sodium cromoglycate) may have a more delayed onset of action (5-14 days) in some clients, making them less useful for acute conjunctivitis</li> <li>- Consider oral antihistamines if generalized allergy symptoms are reported</li> </ul>			
Non-infectious, non-allergic	<ul style="list-style-type: none"> <li>- <b>No therapy</b> required (for minor insult); conjunctival surface should regenerate rapidly</li> <li>- Consider ocular lubricants as needed for comfort</li> </ul>			

For acute conjunctivitis as described above, there is no role for the use of **corticosteroids**. In cases where uncomplicated conjunctivitis may be mistaken for a more serious condition (e.g. herpes simplex or fungal/bacterial/viral keratitis), the use of corticosteroids may cause greater harm than benefit.

## References

- 1) Friesen, AM. *Conjunctivitis*. Patient Self-Care, 2<sup>nd</sup> Ed. Ottawa, Ont., 2010.
- 2) Jacobs, DS. *Conjunctivitis*. In: UpToDate, Waltham, MA. (Accessed on June 14, 2015.)