CLINICAL PRACTICE GUIDELINE: Emergency Department

Viral Conjunctivitis

Disclaimer: This Clinical Practice Guideline ('CPG') was written for use in The Royal Victorian Eye and Ear Hospital Emergency Department. It should be used under the guidance of an Ophthalmology or ENT registrar. If clinical advice is required, please contact the Eye and Ear Admitting Officer for assistance: EYE: +61 3 9929 8033; ENT: +61 3 9929 8032. Links to internal Eye and Ear documents cannot be accessed from the website CPG.

Description:

Common and highly contagious conjunctivitis, most often caused by adenovirus.

Red Flags:

- Highly contagious: segregate patient, disinfect all triage equipment/workspace, virus survives well on fomites
- If symptoms longer than 3 week duration, consider polymerase chain reaction (PCR) for chlamydia
- COVID 19 can uncommonly present with conjunctivitis. Consider: query risk factors, isolate patient, use full personal protective equipment (PPE), COVID swab if indicated.

How to Assess:

History:

- Redness, tearing, burning, itching, photophobia, blurred vision
- Recent contact with person with red eye (incubation period 3-5 days)
- Second eye usually involved 2-3 days after first eye
- Symptoms may be preceded by upper respiratory tract symptoms

Examination:

- Wear gloves, use cotton bud to examine/touch lids
- Avoid checking intraocular pressure (IOP) unless suspect high intraocular pressure or considering steroid treatment. If IOP checked, use iCare tonometer or Tonopen® in preference to applanation tonometry. If applanation tonometry performed, clean tip with alcohol wipe then soak in 3% hydrogen peroxide for 10 minutes, rinse in water, dry and replace on slit lamp
- Lid oedema
- Conjunctiva: injection, chemosis, follicles, subconjunctival haemorrhages
- Punctate keratitis (use fluorescein), subepithelial infiltrates (1-2 weeks after onset)
- Pre-auricular lymphadenopathy
- Severe cases: pseudomembrane/membrane, symblepharon formation

Investigations

- Nil if typical presentation
- Point of care test (Adenoplus®) available if helpful
- PCR swab for adenovirus if diagnosis in question, and will alter your treatment plan

Acute Management:

- Cool compresses, lubricant eye drops as required
- Pseudomembrane/membrane formation: peel membrane using topical anaesthesia, cotton bud or fine forceps. Lyse symblepharon using glass rod.
- Disinfect room/equipment immediately on discharge of patient. 3% hydrogen peroxide is used to clean Goldmanns applanation tonometer. LIV WIPES® (70% isopropyl and pure water) are used to clean the slit lamp followed by Det-Sol 500 (which contains sodium dichloroisocyanurate 10-30%) are used to clean the slit lamp.

Indications for topical steroids:

- Pseudomembrane/membrane formation
- Subepithelial infitrates (SEI) decreasing vision (<6/12). Can be difficult to wean steroid with SEI as they may recur with taper
- Options: the following can be used 3-4 times a day with slow taper
    - Fluorometholone acetate (Flarex®) eye drops
    - Fluorometholone (FML®) eye drops
    - Consider Prednisolone acetate 1%, (Prednefrin Forte®) or Dexamethasone 0.1% (Maxidex®) eye drops for moderately severe pseudomembranes

NOTE: All patients placed on topical steroids should have a follow-up appointment.

Follow up:

- Limit follow up appointments, if possible, to decrease spread of disease: patient should return if symptoms worsen/do not resolve in 2-3 weeks
- Pseudomembrane/membrane formation: follow every 2-3 days until membrane formation ceases, then time between follow up intervals can be increased. Monitor IOP if steroids prescribed.
- Subepithelial infiltrates on topical steroids: 2-3 weekly intervals until improvement, then time between follow up intervals can be increased
- If patient weaned off topical steroids too quickly, may have recurring symptoms/SEI
- Consider Chlamydia PCR for symptoms lasting >3 weeks

Discharge instructions:

- Instructions on symptomatic relief of symptoms: lubricant eye drops, cool compresses
- Natural history of condition: self-limited, can worsen in first few days, usually resolves in 2-3 weeks
- Highly contagious, spread by contact, strict hand-washing, no sharing of linen, minimise contact with others. Usually contagious for 10-14 days after symptoms begin or fellow eye involved. In general, patients remain infectious while their eyes are symptomatic. Patients on topical steroids may be contagious for 2 weeks after symptoms resolve and should take precautions not to spread the disease. Avoid work/school while contagious, in particular for child care providers/teachers/health care workers. Medical Certificate as required.
- Instruct patient to return if condition worsens or persists longer than 2-3 weeks.
- Contact lens wearer: discard previous lens and resume contact lens wear with a fresh contact lens only once eye has been asymptomatic for 1 week

Additional notes:

- Give patient copy of Conjunctivis Patient Information

Evidence Table

Author(s)	Title	Source	Level of Evidence (I – VII)
Adam T. Gerstenblith Michael P. Rabinowitz	Wills Eye Manual, 6th Edition 2012		**VII**
Timothy L. Jackson	Moorfields Manual of Ophthalmology, 2008		**VII**
American Academy of Ophthalmology	Preferred Practice Patterns, Conjunctivitis September 2008		**VII**

The Hierarchy of Evidence

The Hierarchy of evidence is based on summaries from the National Health and Medical Research Council (2009), the Oxford Centre for Evidence-based Medicine Levels of Evidence (2011) and Melynk and Fineout-Overholt (2011).

I) Evidence obtained from a systematic review of all relevant randomised control trials.

II) Evidence obtained from at least one well designed randomised control trial.

III) Evidence obtained from well-designed controlled trials without randomisation.

IV) Evidence obtained from well-designed cohort studies, case control studies, interrupted time series with a control group, historically controlled studies, interrupted time series without a control group or with case series.

V) Evidence obtained from systematic reviews of descriptive and qualitative studies.

VI) Evidence obtained from single descriptive and qualitative studies.

VII) Expert opinion from clinician, authorities and/or reports of expert committees or based on physiology.

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