

Management plans for children and young people with eye and vision conditions during COVID-19

This guidance has been developed by the RCOphth COVID-19 Review Team in response to the pandemic and may be subject to change.

The Royal College of Ophthalmologists (RCOphth) has produced guidance for ophthalmologists and paediatric ophthalmologists as a pragmatic approach to maintain ophthalmic care for those patients who need it while safely deferring care for those patients who can wait. The aim is to manage the risks to patients of permanent sight loss or serious illness/death due to delays in treating eye conditions against the risks to patients and their families of contracting COVID-19 through attendance at health care facilities. Individual eye departments may institute their own guidelines.

Delays to outpatient appointments for children may cause permanent visual deficits. Providers need to assess the risk of

- permanently reduced vision in one or both eyes in children who are approaching the end of the “critical period” of vision development
- loss of life in children due to ocular (retinoblastoma) or neurological conditions which may first present with an eye manifestation such as strabismus
- loss of life of parents/carers from acquiring COVID during clinic visits
- population spread of COVID by families attending rather than staying at home

During the COVID ‘lock-down’ period many optometrist practices will be shut and those that remain open will only offer essential or emergency care. Ophthalmology departments should contact their Local Optometric Committee to establish which practices will remain open and what care can be offered to children.

Patients for surgery

All deferrable and non-urgent surgery and examinations under anaesthesia (EUAs) should be postponed.

Essential are interventions for

- high IOP which cannot be managed medically
- cataract in children under 8 months of age or where there is a risk of causing irreversible, severe amblyopia
- acute emergencies (e.g. penetrating injury, intraocular foreign body, lid lacerations, orbital abscess, retinal detachment)
- intravitreal injections for choroidal neovascularisation (CNV) in paediatric uveitis
- retinoblastoma and other tumour treatment
- EUA’s where it is critical to manage a potentially sight or life threatening disease
- surgery for imminently sight threatening disease e.g. orbital decompression
- surgery for imminently life threatening disease, e.g. to prevent systemic infection
- treatment for ROP

For children with acute conditions seeking unplanned care

Those referred for urgent eye appointments can be grouped into three categories.

1. **See and treat: for urgent review in ophthalmic acute care facility**

- Red painful eye symptoms suggesting serious or sight threatening disorder
- Significant change in vision suggesting serious pathology
- Painful eye / eye movements / orbit suggesting orbital or optic nerve inflammation
- Significant eyelid swelling suggesting e.g. orbital cellulitis; preseptal cellulitis - can be treated also by GP or paediatrician
- Serious ocular or adnexal trauma including serious chemical injuries, lid lacerations, penetrating eye injuries, blunt trauma with hyphaema
- Suspicious disc WITH symptoms (e.g. headaches typical of raised ICP, vomiting, acute double vision)
- Acute onset squint/double vision/nystagmus (<2/52) WITH symptoms or signs of raised intracranial pressure / other neurology / limitation of eye movements
- Leukocoria/ absence or abnormal red reflex (Ophthalmology departments need to ensure that local processes are in place to maintain newborn and infant physical examination (NIPE) referral pathway)
- Diagnosed retinal tear/detachment
- Sight threatening raised intraocular pressure eg buphthalmos, corneal oedema or IOP consistently ≥ 25 mmHg in older child with significant disc cupping or asymmetric disc cupping (consider starting drops before review to avoid pathology during delay and reduce the need for second appointments to re-check IOP on treatment).

2. **Possible semi-urgent review: for nurse/doctor telephone or teleconsultation to decide whether face-to-face appointment required:**

1. Suspicious discs WITHOUT symptoms; ideally OCT and disc photos shared by optometrist
2. Acute onset squint/double vision (<2/52) - WITHOUT symptoms and signs of raised intracranial pressure / other neurology
3. Problems after urgent intra-ocular surgery if do not fall under 'see and treat' immediate review.

3. **Deflect or advice only:** conditions with low/no risk of sight loss or permanent harm: give advice on self-treatment and likely time-line for recovery; *examples:* viral/bacterial conjunctivitis, seasonal/perennial allergic conjunctivitis, blepharitis, chalazion, congenital nasolacrimal duct obstruction. Note that it may not be possible to deflect these cases to the local optometry led Minor Eye Conditions Service (MECS) or equivalent scheme as they will also be limiting access to low risk disease.

The list is not exhaustive, and clinicians will have to exercise their judgement in deciding which cases are treated as urgent, semi-urgent or advice only.

For children referred to outpatient clinics

Children with conditions or features listed in the “high risk” column of the [Moorfields Paediatric Ophthalmology Risk Stratification document](#) require urgent face-to-face assessment.

Those in the “medium risk” column should be risk assessed individually by clinicians and deferred or booked for telephone or teleconsultation (see [RCOphth Telemedicine guidelines](#)). It is likely that remote assessment of at least visual acuity will become possible imminently; this can enrich teleconsultations.

Amblyopia

- Screening should be stopped as per NHSE directive: <https://www.england.nhs.uk/coronavirus/publication/covid-19-prioritisation-within-community-health-services-with-annex-19-march-2020/>
- Children who are already on amblyopia treatment:
 - Atropine: needs to be discontinued and changed to patching, as 8-weekly monitoring visits are required for risk of “reversal” of amblyopia (2-5%). Parents should be given a clear explanation of the rationale for switching treatment modality
Note: atropine may have been used AFTER failure of patching treatment, in which case parents could be given advice and support to reattempt occlusion.
 - Patching: those children who have strabismus need to be monitored every 6-8 weeks, which can be done regularly by phone call or videoconference. As there are currently no formal remote monitoring tools available, it is recommended that children with strabismic, refractive or combined strabismic and refractive amblyopia currently on 6 hours of patching reduce to 2 hours with explanation that treatment may then be longer. As there is a risk of intractable diplopia, which increases with the age of the child, particularly from 7 years old, clear guidance should be given about stopping or reducing occlusion if there is any diplopia immediately on removal of the patch or swap in fixation in strabismic patients. Discontinuation of treatment may eliminate the double vision. Those with anisometropia / microtopia and adequate levels of binocular vision could have patching continued with careful monitoring and if any suggestion of a strabismus developing, occlusion should be stopped.
- Children with suspected amblyopia: Until relaxation of social distancing and resumption of community screening, the urgency to treat suspected amblyopia is a matter of clinical judgement. The risks of further transmission of virus, increased pressure on NHS resources and risk of increasing death rates are significant. It would be considered justifiable to delay treatment of amblyopia until after the pandemic has passed and social distancing directives have been lifted.

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Allergic keratoconjunctivitis including vernal/atopic keratoconjunctivitis

As the hallmark is itching, this can usually be diagnosed remotely. Most patients will only require non-specialised treatment. Topical mast cell stabilisers / antihistamines are available over the counter. GPs could prescribe olopatadine or ketotifen for moderate cases, and topical ciclosporin A (Verkazia), licensed for use in children. Guided by teleconsultation, ophthalmologists could issue prescriptions for short courses of topical steroids.

Blepharitis/chalazia with ocular surface inflammation

Can be managed remotely with lid hygiene and warm compresses, over-the-counter lubricants, and GP or posted FP10 prescriptions of oral macrolide class antibiotic (younger children < 12 years or tetracycline class antibiotics in children > 12 years). Guided by teleconsultation, ophthalmologists could issue prescriptions for short-term topical steroids and longer term topical ciclosporin for corneal involvement.

Paediatric oculoplastic/adnexal cases

Could be assessed by teleconsultation; conservative management can be recommended remotely.

Early-onset or acute strabismus with amblyogenic potential:

Infantile esotropia and acute onset squint with risk of losing binocularity can be assessed by teleconsultation but conservative management recommended at this time.

Controlled and stable uveitis:

Remote assessment of visual function and video based or family reported assessment of “red eye” may help with remote monitoring in a minority. Please see the uveitis specific guidance for clinicians <https://www.uveitisstudygroup.org/> and the paediatric specific algorithm <https://www.ccaa.org.uk/wp-content/uploads/2020/04/Paed-RheumOphth-Risk-Stratification4Families-FINAL-02042020.pdf>

Children on systemic prednisolone immunosuppression, or receiving systemic immunosuppression who also have a co-morbidity (diabetes, lung disease, kidney disease, heart problems, blood pressure) have been categorised as extremely vulnerable and advised to undertake 12 weeks of ‘Shielding’.

RCOphth COVID-19 Team

<https://www.rcophth.ac.uk/2020/04/covid-19-update-and-resources-for-ophthalmologists/>