Paediatric uveitis: The importance of eye surveillance for children with juvenile idiopathic arthritis

The aim of this leaflet is to ensure that you are fully informed about the importance of monitoring your child for the development of eye inflammation, a feature of juvenile idiopathic arthritis (JIA), by providing information and answering any questions that you may have relating to your child’s plan of care as a patient at this hospital.

The eye

The coating of the eye is made up of three layers. The outer layer is the sclera, a tough coat, the innermost is the retina, the thin light-gathering layer and the middle layer is the uvea. At the front (anterior) of the eye, the uvea is made up of the iris and ciliary body. Towards the back of the eye (posterior) the uvea is made up of the choroid (see diagram). Inflammation of any part of the uvea is called uveitis. Children with JIA are at risk of developing uveitis in the front of the eye. This is called anterior uveitis. See image on next page.
What is anterior uveitis?

Anterior uveitis is a medical term that is used to describe inflammation of the iris and ciliary body.

- **Acute anterior uveitis** (also known as iritis): This is the commonest form of uveitis in adults and tends to be very painful, causing intense light sensitivity. Because it is painful, adults with anterior uveitis attend an ophthalmologist quickly and have treatment before permanent damage can occur.
- **Chronic anterior uveitis**: this form of uveitis affects up to 30% of children with JIA. It causes very mild symptoms, with slight eye redness and very mild sensitivity to light.
• Because of the mild symptoms, children may not complain of having a problem with their eyes and, as a result, chronic anterior uveitis may have already caused permanent visual loss by the time it is diagnosed.

Which children are at risk of uveitis?
If your child has a joint condition such as JIA, arthritis associated with psoriasis or bowel disease, he/she has a risk of developing uveitis. Usually the uveitis will start after the onset of joint problems with JIA, but occasionally it can start before.

What does screening involve?
If your child is considered to be at risk of developing uveitis, the rheumatologist will refer your child to the eye clinic. Examination by a high street optician is not an acceptable form of screening in order to rule out uveitis.

• The first eye examination usually takes place within six weeks of referral, unless there are concerns that uveitis may already be present. If your child has symptoms (such as sensitivity to light) which may suggest uveitis is present, an urgent examination will be arranged.
• Subsequent eye examinations will be based on the risk specific for your child.

In the eye clinic your child will have his/her vision measured and have a painless eye examination using a desk-mounted microscope. Very young children may not stay still for the examination and may need several visits before having a satisfactory examination. Sometimes eye drops to dilate the pupils and enable doctors to get a better look at the eye will be required.

Why is it important to ensure that your child’s eyes are screened?
Uveitis needs to be closely monitored and treated because complications may develop and lead to loss of vision.
These include:

- Raised eye pressure (glaucoma)
- Small and irregular pupils
- Cataracts
- Macular oedema (fluid build up in the central retina which can cause loss of vision)

With regular screening and treatment when needed, visual loss due to chronic anterior uveitis can be prevented.

**Treatment of chronic anterior uveitis**

If your child is found to have uveitis, the following treatment will be recommended:

- **Steroid drops:** There are several types of steroid drops that may be prescribed to use several times a day. Prednisolone drops (Predsol) is a low-strength steroid. Dexamethasone drops (Maxidex) is a higher strength steroid drop. One disadvantage of steroid drops is that they can cause the eye pressure to increase.

- **Pupil-dilating drops:** These drops enlarge the pupils and prevent scarring inside the eye. These can be stingy to instil. They may blur the vision for reading and cause some sensitivity to light whilst they are being used. Your child may not like having the drops put in, or indeed the alteration in their vision that the drops cause. However, they are a really important part of your child’s treatment plan.

- **Tablets and injections:** If the uveitis is not controlled using drops, it is sometimes necessary to use medications that suppress the immune response. The most commonly used is methotrexate. Methotrexate is usually very effective at treating uveitis. It is important that your child is seen within a month of stopping methotrexate treatment, since there may be a flare up of uveitis.
The aim of treating your child’s uveitis is to gain control over the inflammation in his/her eyes, relieve any discomfort caused by it and prevent sight-threatening complications from it. The prognosis for chronic anterior uveitis is generally good for those who receive prompt diagnosis and treatment. However, serious complications, such as cataracts, glaucoma and permanent loss of vision may occur if your child’s uveitis is left untreated. Treatment is often needed for years. When your child’s arthritis settles down any eye symptoms will settle too.

Contacting the eye department

Once your child has been referred to the eye department, you will be sent a letter to enable you to arrange an appointment. It is very important that you do this. If, for whatever reason, you are unable to keep an appointment, or have missed an appointment, contact the clinic as soon as possible. A suitable alternative can then be found and a valuable appointment slot will not be wasted. Between clinic visits and after your child has been discharged from the hospital screening programme, it is important that he/she and you are aware of the importance of being vigilant for any signs of uveitis. A good way to perform self monitoring is to remind a young person to read small print (with each eye independently) once a week.

What to look out for:

- Redness of the eye
- Blurred/cloudy vision
- Sensitivity to light (photophobia)
- Dark, floating spots along the visual field
- Headaches
- Abnormal pupils
- Eye pain or aching

If your child is young you may notice them blinking unusually, rubbing their eyes, being visually disinterested, or you may notice a squint that you had not noticed before.
Helpful tips!

- Encourage your child to wear sunglasses if he/she becomes sensitive to light.
- Place a clean warm (or cool) flannel over the eye to soothe it.
- Relieve any discomfort by offering your child pain relief medication such as paracetamol (Calpol).

Benefits, risks and alternatives

Please discuss any concerns that you have regarding these topics with the medical team at your child’s next consultation (please see the section below).

Contacts and further information

If you have any concerns relating to your child’s immediate health please contact your general practitioner (GP). Alternatively, if the matter is a query relating to your child’s diagnosis and is non urgent please be sure to ask your questions at your next outpatient appointment, or, contact one of the following:

- Paediatric Rheumatology Specialist Nurse, Tel: 01223 254988
  Paediatric Ophthalmology Nurses, Monday to Friday 08:00-17:00 Tel: 01223 596414
- The outpatient clinic that your child is normally reviewed in:
  Clinic 3: 01223 274900
  Clinic 6: 01223 216410
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For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

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