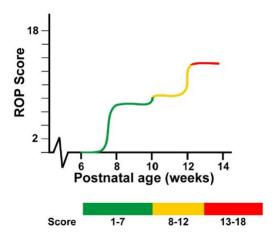
# **Treatment of Preterm Retinopathy (ROP)**

Your child has been examined for the eye disease ROP. It has now been found that your child has vascular changes (a ROP scale above 12) that should be treated within 72 hours.

### ROP scale



#### How does the treatment work?

Your child will be treated under general anesthesia at Drottning Silvias Barnsjukhus by an ophthalmologist from the Eye Clinic, Mölndal who is specialized in these treatments. The treatment takes about one hour. After that your child will be transferred back to ward 316 usually on the same day, sometimes a slightly longer respiratory care is needed. If your child is in homecare, the child is admitted the day before treatment and then the child usually stays in the hospital for a couple of days after treatment.

## Laser treatment

Laser treatment is the most common treatment for ROP in Sweden and involves treating the part of the retina where there are no blood vessels and where growth factors are produced that stimulates abnormal vessel growth, especially the vascular endothelial growth factor (VEGF). In severe ROP, the blood vessels grow uncontrolled and abnormal. Laser treatment reduces the production of growth factors and suppresses abnormal vascular growth, avoiding retinal detachment in the vast majority of cases.

#### Treatment with Anti-VEGF

Treatment with Anti-VEGF involves injecting a drug into the eye that inactivates the growth factor VEGF. Even after this type of treatment, abnormal vascular growth is suppressed and the risk of retinal detachment is reduced. Anti-VEGF is most often used today as a complement to lasers or if it is difficult to treat with laser. Sometimes laser has to be performed after Anti-VEGF treatment to reduce the risk of retinal detachment.

The choice of treatment is made in the best interests of the child and is always made by your treating ophthalmologist.

It is only during the examination after a week that the preliminary results of the treatment can be seen. At the examination after a week, we will be able to tell you about the results of the treatment.

After that, treated children are followed longutudinally slightly differently depending on the type of treatment and findings.

## Follow-up of laser-treated children

After the first examination, repeated examinations are carried out at 1-2 weeks intervals until the retinal vessels are stable.

At the equivalent of 2 months of age from the planned birth, an assessment of the eye and visual function is made, which is repeated every 3 months to one year of age. After that, eye examinations are planned 2 times/year to 7 years of age and then annually surveys to 16 years of age or if necessary.

## Follow-up of Anti-VEGF treated children

Anti-VEGF poses slightly higher risk of ROP needing re-treatment and the eyes therefore need to be examined more times after anti-VEGF treatment. After the first examination, treated children are examined weekly for 4 weeks and then every two weeks for about 3 months. After that, eye examinations are carried out every month until the retina is fully developed or up to the age of 1 year, then every 3 months to 4 years of age and then annually until the age of 16 or if necessary.

## How does the treatment affect vision function?

Many children who have been treated achieve a normal visual acuity and most achieve the visual acuity required to obtain a driving licence. Some children may experience visual impairment at the outer edges of the field of vision. Myopic that can be corrected with glasses or contact lenses is somewhat more common in children treated primarily with lasers.

Premature babies have a slightly increased risk of strabismus and since unilateral strabismus can cause visual impairment in the skewed eye, it is good if you as parents contact us at the eye clinic if you suspect that your child is skewing. During the repeated visits to the eye clinic, examinations are also carried out regarding strabismus.