**Procedure Information Sheet**

**Introduction**
Laser is commonly used to control/ to treat retinal diseases or glaucoma in ophthalmology. High intensity laser light reaches the iris and retina to induce thermal, chemical and other photochemical effects for treatment. In case of after cataract, laser therapy can only prevent further deterioration but not improve vision. Laser therapy can be done in outpatient clinic and does not require hospital admission.

**Indication**
- Retinal breaks, thinning or degeneration can be treated with laser. Applying laser around the breaks or holes can decrease the possibility of retinal detachment.
- In diabetic patients with proliferative diabetic retinopathy, there are new vessels forming on their retina. These vessels (Neovascularization) are fragile and bleed easily. They also affect vision by creating traction on the retina leading to retinal detachment. Laser can destroy these new vessels and prevent their further growth.
- Narrow angle glaucoma can be treated by peripheral iridotomy. Persistently high intra-ocular pressures can damage the optic nerve. Laser can create a small hole on the iris which can facilitate the drainage of aqueous flow and lower the intraocular pressure.
- Opacity in posterior capsule after cataract extraction can be treated by posterior capsulotomy. Laser can create perforate the opaque capsule and thus improve vision.
- Other different ocular pathology may require different types of laser therapy.

**The Operation / Procedure**
1. You will be seated in front of the slit-lamp biomicroscope laser unit.
2. A special contact lens will be attached during the laser treatment.
3. You have to keep your head and eyes still during laser treatment.
4. Treatment usually lasts for 10 to 30 minutes. Longer time may be required for the treatment of diabetic retinopathy. Inform your doctor immediately if you experience serious discomfort or pain during laser treatment.

**Before the Operation / Procedure**
1. Local anaesthesia in the form of eye drops will be applied. Eye drops for pupil dilation will also be applied to treat retinal diseases.
2. Mild discomfort or pain may be experienced when the laser beam passes through the eye ball.

**After the Operation / Procedure**
1. If you experience mild discomfort or pain after laser treatment, take the pain killers prescribed.
2. Attend follow-up appointment as scheduled.

**Risk and Complication**
1. Transient blurring of vision or floaters may last for a few days. If conditions persist, seek medical advice as soon as possible.
2. Transient eye discomfort and redness are common. If pain increases or vision gets worse, you should seek medical advice as soon as possible.
3. Transient increase in intraocular pressure may occur after laser treatment for glaucoma. Close monitoring of intraocular pressure is crucial. You may be asked to stay under observation for a few hours after laser treatment.

**Disclaimer**
This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

**Reference**
1. Smart Patient Website by Hospital Authority: Laser Surgery of the Eye (7/2014)
2. NTWC Eye Service, Hospital Authority, Fact Sheet: Eye Laser Surgery (7/2010)