



## Procedure Information Sheet

### Introduction

Vitreous humour is a clear, transparent jelly-like substance that fills the space between the lens and the retina. Pars Plana Vitrectomy is a microsurgical procedure to remove the vitreous humor and replace it with vitreous substitutes such as special saline solution, gas or silicone oil.

### Indication

Pars Plana Vitrectomy is used to treat various kinds of vitreo-retinal disorders including:

- Vitreous haemorrhage or inflammation
- Retinal detachment
- Proliferative diabetic retinopathy (including vitreous haemorrhage)
- Macular hole or vitreo-macular traction
- Epiretinal membrane (macular pucker)
- Intraocular infections (endophthalmitis)
- Retained lens material or dislocated lens implants after cataract surgery
- Intraocular foreign body
- Traumatic eye injuries

### The Operation / Procedure

The surgery can be performed under general or local anesthesia.

1. Small incisions are made in the sclera, for placement of fine surgical instruments into the eye during the procedure. Tiny dissolvable stitches may be used to close the wound.
2. Vitreous jelly, blood, scarred tissue or fibrous membranes are then removed from the small incisions by using micro surgical instruments.
3. Special silicone rubber or sponge may be used if scleral buckling procedures are performed for the repair of retinal detachment.
4. Intraocular gases or silicone oil may be used to flatten and support the detached retina and keep it in place to allow time for healing.
5. The intraocular gas will be absorbed by itself in a few weeks while a second operation may be required to remove the silicone oil when the retinal condition is stable.
6. Laser or cryotherapy may be applied during surgery to seal any breaks in the retina to prevent bleeding. It may also be used for retinal ablation in advanced diabetic retinopathy.
7. The surgery usually takes 1-2 hours. Surgical time may be longer in complicated conditions or if any combined procedure such as scleral buckling or lens removal is performed.

### Before the Operation / Procedure

1. Inform your doctor if you have other systemic diseases such as hypertension, heart disease, diabetes, stroke, or if you are taking regular western medications, especially medications that affect blood coagulation such as Aspirin or Warfarin, traditional Chinese medicine or health supplements.
2. Blood tests, chest x-ray may be required to prepare if surgery is performed under general anesthesia.
3. Fasting as instructed if the surgery is performed under general anesthesia.

#### Patient's Label

Patient Name: \_\_\_\_\_  
Hospital No: \_\_\_\_\_  
Episode No: \_\_\_\_\_



**After the Operation / Procedure**

1. The operated eye will be swollen, red and sensitive to light. You may also experience tearing and gritty sensation.
2. Vision may remain blurry during the early postoperative period especially when gas or silicon oil has been injected into the eye. You are advised to maintain a special posture, for example, in a face-down position or lie prone in bed as much as possible. This posture is important for recovery and success of the operation.
3. Since many vitreoretinal diseases are usually severe and potentially blinding in nature, full recovery of vision may not be possible. Final visual outcome depends on the severity of the disease, the recovery of the eye after the operation and the occurrence of any significant complications.
4. Re-operation may be required if the disease reoccurs or if there are any significant complications.
5. Use medications as prescribed by doctor and attend follow up as schedule.
6. Avoid eye rubbing.
7. Avoid dirty water getting into the operated eye. Avoid hair washing to prevent eye infection by the unclean water, soap or shampoo for the first week.
8. Avoid swimming, contact sports or vigorous activities for a few weeks.
9. Wear clothes with buttons rather than pullovers to prevent contact with the operated eye to reduce risk of infection.
10. Advise using dim light when you go to toilet at night to avoid fall.
11. Maintain the special postoperative posture for the specified duration as doctor's order.
12. Do not travel by air or go to high altitude when gas is injected inside the eyeball. Wait until it is completely absorbed as confirmed by doctor. Because the reduced atmospheric pressure causes the gas bubble to expand, raising the pressure in the eye to dangerous level. Your vision will usually improve gradually when the gas is being absorbed.
13. If you need any other surgical procedure that requires general anesthesia when the gas is still in your eye during the postoperative period, you must inform the surgeon and the anesthetist for special precaution and management. Wear your bracelet and keep the gas card until the gas is completely absorbed.
14. If you notice the following signs or symptoms, you should contact your doctor, Eye Centre or Out-patient Centre for consultation:
  - excessive bleeding
  - severe pain
  - fever
  - signs of eye infection like redness, swelling or excessive discharge, etc.

**Patient's Label**

Patient Name: \_\_\_\_\_

Hospital No: \_\_\_\_\_

Episode No: \_\_\_\_\_



### **Risk and Complication**

Par Plans Vitrectomy has been commonly performed for over the past decades. However, it carries some possible risks and complications which include:

- Infection
- Cataract formation or progression
- Refractive changes
- Bleeding inside the eye
- Increased pressure in eye or glaucoma
- Persistent low pressure in eye or hypotony
- Retinal tear or retinal detachment
- Corneal edema or degeneration
- Retinal vascular occlusion
- Macula changes including epiretinal membrane or macula edema
- Anterior segment ischemia, exposure of explants and squint related to scleral buckling
- Visual field loss
- Failure to attach the retina or retinal re-detachment requiring additional operations or treatment
- Recurrence of disease process
- Sympathetic ophthalmia
- Blindness or loss of eye
- Risks of anesthesia

### **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**

Smart Patient Website by Hospital Authority: Pars Plana Vitrectomy  
(11/2022)

#### **Patient's Label**

Patient Name: \_\_\_\_\_

Hospital No: \_\_\_\_\_

Episode No: \_\_\_\_\_

Patient's Signature: \_\_\_\_\_ Date: \_\_\_\_\_