

## **Paravalvular leak closure (PVL)**

In some instances, following a surgical valve replacement, a small leak caused by a space between the patient's natural heart tissue and the replacement valve can be present. In the majority of cases this is mild and of no clinical significance. However, in a minority of patients, this leak can cause a problem including symptoms of heart failure and / or haemolysis. In these instances, percutaneous paravalvular leak (PVL) closure can be performed as a minimally invasive alternative to re-do open heart surgery.

If the PVL is large it may cause signs and symptoms in keeping with heart failure. Rarely it may also cause haemolysis. PVL closure may address this and is a percutaneous option that may be suitable as an alternative to a re-do open heart operation.

### **How should I prepare?**

Prior to your procedure, you will have undergone a number of investigations to determine suitability of PVL closure including echocardiography, CT scanning and blood tests.

Once a date for your procedure has been organised you will be given specific information with regards to admission times and also your medications.

If you are taking anticoagulants (e.g. warfarin), Prof Ruparelia will formulate a plan to manage this with you through your per-operative period.

You should not eat or drink for 6 hours prior to your procedure.

Prior to your procedure, you shall also be reviewed by an anaesthetist.

### **What are the risks?**

PVL closure is relatively safe with a 1% of complication including vascular injury, stroke, failure, damage to the heart or device embolisation.

### **The Procedure**

Prof Ruparelia performs the procedure under a general anaesthetic with the aid of X-ray and TOE guidance.

Tubes are inserted into both the artery and vein at the top of the leg. Depending on the location of the leak, the procedure may require further intervention (e.g. trans-septal puncture) and the specifics of your procedure shall be explained to you by Prof Ruparelia in advance.

The procedure takes approximately 1-2 hours and you are usually woken up in the operating room straight after your procedure

### **Recovery and post-procedural care**

You will be asked to lie flat in bed for a few hours to aid in the healing of the legs. You can eat and drink immediately after your procedure.

You should be able to sit out of bed within 4-6 hours and walk after 8 hours. Depending on progress, and the management of your blood thinning medication you may be able to be discharged the following day.

When at home you are able to walk and gradually build up your exercise tolerance and activity.

Prof Ruparelia shall organise a follow up with clinical assessment, ECG and echocardiogram following your procedure.

Your valve will require long-term annual surveillance.