

## **Permanent Pacemaker Implantation Information Sheet**

### ***General indications for the procedure:***

A permanent pacemaker is implanted to treat and prevent slow heart rhythms.

### ***Description of Procedure:***

A permanent pacemaker is implanted by inserting 1 or 2 pacing leads through the thoracic (chest) veins. These leads are attached to a generator (a computer and battery that monitors the heart rhythm) which is placed, via a small incision, under the skin. A permanent pacemaker uses very low energy electrical stimuli to excite (pace) the upper and lower chambers of the heart. Prior to the procedure, the chest is numbed and intravenous sedation is given to cause drowsiness. The primary discomforts of the procedure are the sensation of rapid heart beat (palpitations) and the local discomfort in the chest. Medications are given to lessen these symptoms. Monitoring of oxygen levels, blood pressure, and heart rate are done during the procedure.

### ***Risks of the Procedure:***

Mild bleeding may occur with the procedure. A small collection of blood around the generator, known as a hematoma, is the most common risk. More severe bleeding is rare. A clot may form in the veins and require treatment with blood thinning medication. Pneumothorax (air leak of the lung) occurs infrequently and may require a tube to drain the air leak. Damage to the blood vessels, heart muscle or valves may occur. Cardiac perforation is usually asymptomatic. However, if enough blood collects rapidly in the sac around the heart a rapid decline in blood pressure may occur. The blood may be withdrawn with a needle, and a drainage catheter left in place for 24-48 hours. In very rare circumstances, if the bleeding does not cease emergency surgery will be required. Rare complications include stroke, heart attack and death. Infection is uncommon but requires removal of the entire pacing system.

### ***Procedure Alternatives, if any:***

No alternatives exist for long term treatment of slow heart rhythm disturbances.

### ***Probable Consequences of Refusing Procedure:***

Loss of consciousness may occur. A life-threatening heart rhythm disturbance may be left untreated.

### ***Person(s) Performing the Procedure:***

The key portions of the procedure will be performed by a physician who is a member of the medical staff of Rush University Medical Center and/or a clinical cardiac electrophysiology fellow who is observed by a physician who is a member of the medical staff. Fellows are licensed physicians in approved post residency training programs. Parts of the procedure which they perform will be based on their level of competency.