

Pitt selected to do research on new heart pump

By Byron Spice

Science Editor, Post-Gazette

The University of Pittsburgh Medical Center will explore an alternative to heart transplants when, perhaps early in 1992, surgeons begin using fully implantable blood pumps to assist patients with weakened hearts.

The National Institutes of Health has selected Pitt and the St. Louis University Medical Center to participate in a five-year trial of the permanently implanted device designed and built by Novacor, a division of Baxter Healthcare Corp. in Oakland, Calif., the universities

announced yesterday.

"We're all very excited because it's a step into the future for us," said Dr. Robert Kormos, clinical coordinator for the study at Pitt.

Pitt and St. Louis each will implant 10 of the electromechanical devices as part of the NIH study. Stanford University, which has played a key role in development of the Novacor device, declined to participate in the NIH study because of disagreement over contract details. But researchers there said they expected to perform their own clinical studies of the fully implantable system.

Pitt will receive \$1.6 million from NIH to perform the study. Novacor will supply the devices, while the hospital will be responsible for patient expenses.

The device, known as a left ventricular assist system, is similar to Novacor pumps now used to keep patients with failing hearts alive long enough so they can receive heart transplants.

Rather than replacing the heart, as did the Jarvik-7 artificial heart, the pump works in concert with the weakened heart. While the device provides the raw power needed for pumping blood, the heart continues

to regulate the circulatory system.

Patients with the existing Novacor devices must remain tethered to a large power and control console, but the fully implantable versions will include a miniaturized computer control inside the body. No tubes will penetrate the skin.

A 16-hour, rechargeable battery pack is built into a special belt, which transmits power through intact skin.

About 20 patients have received temporary Novacor implants since 1985 at Pitt. St. Louis has used it six times, most recently on a suburban St. Louis man who survived a record 376 days on the pump.

Transplantation remains the most effective treatment for people with failing hearts, but the demand for donor hearts far outstrips the supply, said Dr. Bartley Griffith, principal investigator and director of the artificial organ program at Pitt.

Kormos said patients selected for permanent implantation with the Novacor device would be people who have conditions that make heart transplantation difficult or unlikely.

Two weeks ago, Brian Williams, 15, of Augusta, Ga., became the first Novacor patient to leave the hospital. He returned to Presbyterian University Hospital a few days later to receive a heart transplant.

Pittsburgh Post-Gazette (09/07/1990)