Christiana Care cardiologists begin using new device to correct heart defects in adults

Wilmington, DE (January 21, 2004) – A new umbrella-shaped device is helping cardiologists at Christiana Care’s Center for Heart & Vascular Health correct some heart defects in adult patients who previously would have required open-heart surgery and a lengthy hospital stay. With this new technique, patients are able to leave the hospital the next day. During the approximately one- to two-hour procedure, an interventional cardiologist uses a new device called a septal occluder to seal off abnormal holes in the septum, the veil of tissue separating the heart’s atrium, or upper chambers.

“Most patients who are candidates for septal occluders are born with a condition known as a secundum atrial septal defect (ASD),” says Interventional Cardiologist James Hopkins, M.D., who performed the first two procedures last fall with fellow Cardiologist James M. Ritter, M.D., and Pediatric Cardiologist James Murphy, M.D. “ASDs can cause increased blood flow into the heart’s right side, forcing the heart to work harder.” Sometimes the hole closes naturally as the patient matures, without causing symptoms or needing treatment, according to Ritter. “But if the hole is large or fails to close, we’ll see symptoms such as difficulty breathing, fatigue, failure to grow normally and higher susceptibility to infections and diseases. Left untreated, ASDs can lead to arrhythmias, heart failure, high blood pressure and stroke or even death,” he says.

The self-expandable septal occluder system is made from wire mesh and polyester fabric and includes one or two umbrella-shaped disks, which are fed into an incision near the groin using a cardiac catheter. Once in the heart, the device is advanced to the hole in the septum and the “umbrellas” open, attach to the wall and seal the hole. The implant becomes a permanent part of the heart as tissue grows over it. Not all atrial septal defects are correctable using the occluder device. It is not an option for patients who:

- Have extensive cardiac problems and require open-heart surgery.
- Have certain types of infections that do not respond to treatment.
- Cannot take aspirin or other blood-thinning drugs, such as coumadin.
- Have blood clots in or near the heart.
- Are allergic to nickel.

Christiana Care Health System, which traces its roots back to 1888, is one of the region's largest not-for profit health care providers, serving the people of Delaware as well as neighboring Maryland, Pennsylvania and New Jersey. A teaching hospital, Christiana Care is recognized as a regional center for excellence in cardiology, cancer and women's health services, as well as Level-I trauma care and Level-
3 neonatal intensive care (both highest intensity). Christiana Care operates two hospitals, long-term and transitional care services and an extensive range of outpatient and home health services. Last year, Christiana Care provided more than $37 million of charity care.