



## CHRISTIANA CARE HEALTH SYSTEM

**Contact:**

Hiran J. Ratnayake  
Senior Manager of Media and Government Relations  
(302) 327-3327  
hratnayake@christianacare.org

### **Christiana Care Health System's Mark Garcia, M.D. Identifies Successful Treatments for Chronic Deep Vein Thrombosis**

(Wilmington, Del. – March 26, 2012) Findings from research led by [Christiana Care Health System](#)'s Mark J. Garcia, M.D., FSIR demonstrate that people treated for chronic deep vein thrombosis can experience a reduction in disabling symptoms and an improved quality of life. Dr. Garcia, who is the chief of vascular interventional radiology and medical director of the heart and vascular peripheral labs at Christiana Care, presented the findings today during the Society of Interventional Radiology's 37th Annual Scientific Meeting in San Francisco.

Dr. Garcia's abstract was one of only nine abstracts— out of 455 submitted worldwide — chosen by the Society for Interventional Radiology to highlight during its annual meeting. Dr. Garcia also co-moderated the meeting's opening session on Saturday, which focused on the treatment of deep venous diseases. That session was attended by more than 500 interventional radiologists from around the world.

Dr. Garcia's abstract was chosen because his findings are novel. They show that minimally-invasive interventional radiology techniques can successfully treat patients who are suffering from post-thrombotic syndrome, a constellation of chronic symptoms from pain and swelling to ulcers and gangrene that are due to deep vein thrombosis.

Dr. Garcia's findings found that a treatment strategy that focuses on the removal of the patient's chronic clots is superior to the traditional treatment methods. Those methods include blood thinners and elastic compression stockings to medically manage the clots.

“People suffering from post-thrombotic syndrome have been told that no treatment options are available to remove the clots and help relieve the symptoms, but that no longer is true,” said Dr. Garcia, who also serves as chair of SIR's Venous Service Line. “Interventional radiologists now have an opportunity to help individuals afflicted with the post-thrombotic disorder who are desperately seeking an improved quality of life. We are showing there is hope for these patients”

The U.S. Centers for Disease Control and Prevention estimates that between 300,000 and 600,000 Americans develop deep vein thrombosis each year, which is the formation of a blood clot in a vein, commonly in the legs. The clot can block blood flow and cause symptoms, most commonly pain and swelling. Once someone develops deep vein thrombosis, several things can occur. Clot can potentially break off and travel through the bloodstream and get stuck in the lungs, a phenomenon called pulmonary embolism, which can cause severe damage and even death. Combined, deep vein thrombosis and pulmonary embolism kill between 100,000 and 180,000 people each year.

It has been shown that approximately half the people who experience deep vein thrombosis and receive appropriate blood thinner medication and compression stockings see their condition deteriorate to the point where they develop post-thrombotic syndrome, despite appropriate medical management. The syndrome is characterized by a constellation of symptoms including leg pain, swelling, fatigue and permanent skin changes including open sores or ulcers.

However, the findings reported by Dr. Garcia show that the post-thrombotic syndrome symptoms can significantly improve with the minimally invasive treatments, which led to an improved quality of life. His study included more than 100 patients who were suffering from post-thrombotic syndrome. Over a three-year period, his team performed the minimally invasive treatments in an attempt to relieve the blockage and restore blood flow. The findings showed that his team was able to restore flow in 97 percent of patients with 93 percent of the patients reporting significant symptomatic improvement. Only 7 percent experienced symptoms that went unchanged. None reported worsening of their symptoms.

“There is increasing evidence that early and complete removal of the blood clot is likely to give people their best chance to avoid disabling symptoms, such as pain, swelling, skin changes and ulcer formation,” Dr. Garcia said.

Very few studies to date have evaluated endovascular treatments for chronic deep vein thrombosis. Dr. Garcia said more research into this area should be performed, given the promising findings.

“This study has the potential to drastically improve the quality of life for patients who thought there was no hope for their chronic clots,” Dr. Garcia said. “As interventional radiologists, we must embrace minimally-invasive techniques that can help restore both the blood flow in people’s veins and the quality of their lives. We are trying to give them hope”

For more information about the Society of Interventional Radiology, visit [www.SIRweb.org](http://www.SIRweb.org).

For more information about Christiana Care, visit [www.christianacare.org](http://www.christianacare.org).

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