



NEWS RELEASE
For Immediate Release

Contact: Ken Dey
(208) 381-2894 (office)
(208) 631-5322 (cell)
Deyke@slrmc.org

St. Luke's Participating in Study to Improve Diagnosis of Coronary Artery Disease

*-National Trial Could Lead to Gene-Based Blood Test That Could
Help Avoid Invasive Diagnostic Procedures-*

St. Luke's Center for Heart and Vascular Health is participating in a national clinical trial that could lead to the development of a blood test to identify genes that would indicate the presence of coronary artery disease (CAD).

St. Luke's is one of 35 hospitals nationwide participating in the PREDICT (Personalized Risk Evaluation and Diagnosis in the Coronary Tree) trial, which is being conducted by CardioDx, a cardiovascular genomic diagnostics company in California. Eric Topol, M.D., of Scripps Healthcare is the primary investigator of the study.

An earlier study conducted by CardioDx and Duke University Medical Center and published in a recent issue of *Circulation: Cardiovascular Genetics* reported on the identification of 14 genes in circulating blood that are associated with the presence of CAD, as well as with the degree of stenosis (blockage) in the coronary arteries. The PREDICT trial is continuing to evaluate this set of 14 genes, as well as other genes.

According to Dr. David Hinchman, the principal site investigator for St. Luke's Idaho Cardiology Associates, 39 patients from St. Luke's are participating in the PREDICT trial. He says the development of a blood test could alter how CAD is diagnosed. Although enrollment at St. Luke's is now closed, the currently enrolled patients are still being followed in this study.

CAD affects an estimated 15 million people in the United States and causes one out of every five deaths, making it the leading cause of death among Americans. As the disease progresses it causes narrowing of the arteries (stenosis) through a build-up of plaque. Because coronary arteries deliver blood to the heart, an interruption in the supply can lead to a heart attack, sudden cardiac arrest or death.

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The diagnosis of CAD in patients with chest pain can be a significant challenge, involving multiple stress tests, echocardiograms, CT angiograms and myocardial perfusion imaging.

These tests can indicate the presence of CAD, but Hinchman said the only sure way to diagnose the extent of the problem is through an angiogram. An angiogram involves threading a catheter to the desired artery from an access point on a patient's body, normally in the groin. A dye, or contrast, is then injected into the bloodstream to make the blood vessels visible on an X-ray. This allows doctors to see blockage and potential problems.

Because current diagnostic tests performed prior to an angiogram are often inconclusive, some patients receive angiograms when they have no disease, placing them at risk for complications that can include bruising, bleeding, allergic reactions and kidney problems caused by the contrast agent.

Hinchman believes a blood test could reduce the number of unneeded invasive procedures, while enabling patients with significant CAD coming to the hospital with chest pain to move directly to coronary catheterization for treatment.

"If the PREDICT trial is successful, it could help doctors identify patients who are at very low risk for CAD, and could possibly reduce the number of people who need to have an invasive, fairly costly angiogram," he said. "The diagnostic test could prove to be very valuable in how we manage and treat patients with chest pain."

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Editor's Note: To arrange an interview with the doctors involved in the study contact Ken Dey.

On the Web:

CardioDX:

<http://www.cardiodx.com/diagnostic-programs/coronary-artery-disease/>

St. Luke's Center for Heart and Vascular Health:

http://www.stlukesonline.org/boise/specialties_and_services/heart/

Circulation: Cardiovascular Genetics:

<http://circgenetics.ahajournals.org/cgi/content/full/1/1/31>

<http://circgenetics.ahajournals.org/cgi/content/full/1/1/7>