New Study Finds Abbott Blood Test Can Help Predict Future Cardiac Events In Adults With No Known Heart Disease

- Research found Abbott's High-Sensitive Troponin-I blood test may identify adults at risk of having a cardiac event, independent of other heart disease risk factors

- Abbott's core laboratory diagnostic test is the first troponin blood test with CE Mark that can more accurately predict risk of developing heart disease, when added to other heart disease risk assessments, than using other assessments alone

ABBOTT PARK, Ill., April 29, 2019 /PRNewswire/ -- Abbott (NYSE: ABT) announced today that a new study published in *Circulation* found its High Sensitive Troponin-I blood test could predict the chance of developing a cardiac event years before it occurs in people with no symptoms when added to current heart disease assessments.[1] Using data from the Atherosclerosis Risk in Communities (ARIC) study, researchers suggest doctors could add the test to routine physical assessments in healthy middle-aged and older adults to better predict their chances of developing heart disease.

Troponin blood tests are widely used to help physicians detect heart attacks. As healthcare systems make a shift from treating symptoms of heart disease to preventing the onset of it, research now indicates that measuring a person's troponin levels using Abbott's High Sensitive Troponin-I blood test also can help predict a person's chances of having a cardiac event potentially years in advance when they show no signs or symptoms.

In this latest analysis, researchers found that elevated troponin-I levels using Abbott's High Sensitive Troponin-I blood test are associated with having future cardiac events– such as heart attack, coronary heart disease, stroke, heart failure hospitalization and death. This increased risk was independent of typical heart disease risk factors, such as cholesterol levels, blood pressure, smoking and diabetes. The study found that compared to adults with low levels of troponin-I, adults who had elevated levels of troponin-I were:

- More than twice as likely to have a cardiac disease event, such as a heart attack
- Nearly three times more likely to have ischemic stroke
- More than four times as likely to be hospitalized with heart failure

"Studies increasingly show the value of measuring troponin levels in people who have not been diagnosed with heart disease to help better determine their future risk," said Christie M. Ballantyne, M.D., Professor of Medicine and Director of the Center for Cardiometabolic Disease Prevention, Baylor College of Medicine, and corresponding author of the study. "This study supports the value of adding highly sensitive troponin-I blood tests to current cardiovascular risk assessments to better identify patients who might benefit from more intensive steps to improve their heart health like improved diet and exercise."

As part of this latest analysis of the ARIC study – an epidemiologic study on the causes of atherosclerosis – researchers looked at 8,121 adults age 54 to 73 years old with no known heart disease at the time their blood was drawn in 1998. Stored blood samples were used to measure troponin-I levels using Abbott's High Sensitive Troponin-I diagnostic test, and 85% of participants had detectable troponin. Study participants were evaluated for approximately 15 years through 2013 to determine if they had a cardiac event. The study also measured troponin-T, another heart protein, using a different manufacturer's test. The study found the levels of the troponins were not strongly correlated with each other.

Transforming heart disease from detection to prevention

Cardiovascular diseases are the leading cause of death globally.[2] Yet, heart disease can often be prevented if identified early and managed through lifestyle changes and medication as needed. To determine a person's risk for developing heart disease, physicians currently look at indirect heart health factors, such as cholesterol levels, blood pressure and a family history of heart disease. By contrast, Abbott's High Sensitive Troponin-I blood test looks at a protein that comes directly from the heart and is found at elevated levels in the blood after heart muscle has been injured.

"Advancements in our diagnostic technology are allowing us to see levels of troponin that may indicate early signs of injury to the heart years before heart disease becomes overt or symptoms appear," said Agim Beshiri, M.D., senior medical director, global medical and scientific affairs, Diagnostics, Abbott. "Having a clearer picture of a patient's heart health can serve as a wake-up call – empowering people to work with their doctors to take control of their heart health and possibly prevent a future cardiac event."

Abbott's High Sensitive Troponin-I test is available for cardiac risk assessment in CE Marked and non-regulated countries, pending country registration. Abbott's blood test is not yet commercially available in the U.S. and was used for research purposes in this study. Abbott is actively pursuing registration of the High Sensitive Troponin-I test in the U.S.

About the Study

The study, published online today in *Circulation,* is part of ARIC – a prospective, epidemiologic study conducted in four U.S. communities to investigate the causes of atherosclerosis. In this analysis, a total of 8,121 people with no known cardiovascular disease were included. Researchers measured associations between high-sensitive troponin-I blood test results and heart attack or other coronary heart disease event, stroke, heart failure hospitalization and death. The median follow-up was 15 years.

About ARIC

The Atherosclerosis Risk in Communities Study (ARIC) began in 1987. Each ARIC field center randomly selected and recruited

a cohort sample of approximately 4,000 individuals aged 45-64 at their first visit. A total of 15,792 people participated in a detailed medical examination. They have been re-examined periodically, with yearly telephone follow up. To date, the ARIC study has published 1,854 papers in peer-reviewed journals.

About Abbott:
Abbott is a global healthcare leader that helps people live more fully at all stages of life. Our portfolio of life-changing technologies spans the spectrum of healthcare, with leading businesses and products in diagnostics, medical devices, nutritionals and branded generic medicines. Our 103,000 colleagues serve people in more than 160 countries.

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2. Cardiovascular Diseases Fact Sheet. World Health Organization, May 2017. Web site: http://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds).

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