BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Hong Kong develops approach to estimate risk of heart disease in HIV patients

March 23, 2023 | News

CU Medicine's combined prediction model achieved over 90% of sensitivity and specificity in estimating risk of heart disease in HIV patients



Although there are existing calculators for predicting the risk of coronary artery disease in an individual, they are often inaccurate, as they fail to take into account many host characteristics, including ethnicity and underlying medical conditions such as HIV.

The Centre for Clinical Research and Biostatistics, the Department of Medicine and Therapeutics, and the Department of Imaging and Interventional Radiology from The Chinese University of Hong Kong (CUHK)'s Faculty of Medicine (CU Medicine) have evaluated the effectiveness of a simple tool – Automatic Retinal Image Analysis (ARIA) technology – for assessing cardiovascular risk in people living with HIV.

Results showed the model, which incorporates both retinal characteristics and traditional cardiovascular risk factors, has both a sensitivity and a specificity of over 90% in assessing the presence of coronary atherosclerosis and obstructive coronary artery disease.

People living with HIV have twice the risk of healthy individuals of developing cardiovascular disease. They also have a higher prevalence of hypertension and diabetes, contributing risk factors to cardiovascular diseases. Interventions are available to reduce the risk of coronary artery disease in at-risk individuals, but a simple, accurate tool is needed to identify the individual risks among them.