

PANEL SUMMARY: MAJOR CARDIOVASCULAR DISEASE OUTCOMES: PRIORITIES TODAY, PRIORITIES TOMORROW FOR RESEARCH AND COMMUNITY HEALTH

Ervin Fox, MD
Department of Medicine
University of Mississippi Medical Center

Ralph Sacco, MD (Moderator)
Neurology Department
Miller School of Medicine
University of Miami

Errol Crook, MD
Department of Medicine
University of South Alabama

Veronique Roger', MD
Mayo Clinic
Rochester

David Herrington, MD
Wake Forest University Health Sciences

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SUMMARY

The panel moderator and four panelists each addressed different aspects of cardiovascular disease (CVD) outcomes: Sacco, stroke; Crook, chronic kidney disease (CKD); Roger', selected trends and surveillance; Herrington, escalating health expenditures; and Fox, selected biomarkers and vascular function. The presenters framed the remarks around four strategies to address inequitable cardiovascular care as discussed earlier in the day by Yancy, and especially focused on the importance of prevention in reducing the onset of disease as a first step to improving health outcomes in the areas of stroke and kidney disease.

In presenting the heterogeneity of stroke, Sacco provided evidence that emphasized the importance of defining the specific subtypes of stroke: hemorrhagic (intracerebral or subarachnoid) vs ischemic (cryptogenic, lacunar, embolic, or atherothrombotic). Understanding the importance of assessing traditional and novel risk factors of stroke and cognitive decline, he advocated that JHS evaluate the global vascular risk prevention through investigating: 1) a multiple array of risk factors (traditional, behavioral, and genetic); 2) the progression of subclinical disease; and 3) the development of clinical disease (stroke, myocardial infarction [MI], peripheral artery disease, congestive heart failure [CHF], and CKD). He further

advocated integrating environmental data with traditional and novel risk factors for stroke and cognitive decline to better define and modify risk, with prevention as the ultimate objective.

According to Crook, the incidence and prevalence of CKD is increasing; the major drivers for the higher rates are hypertension and diabetes. Crook stated as kidney function worsens (based on declining eGFR- estimated glomerular filtration rate), there is an increased risk of CVD events particularly at the cutpoint eGFR ≤ 60 mL/min/1.73 m². To advance the body of knowledge regarding the relationship between CKD and CVD, Crook suggested that researchers focus on answering two questions: 1) What unique risk factors for CKD, particularly in African Americans, convey increased cardiovascular risk? and 2) What are the unique factors that result in accelerated CVD and cardiovascular outcomes in patients with CKD? Crook recommended that renal function be included when phenotyping the population since patients with CKD have accelerated development of CVD and cardiovascular outcomes.

Roger' provided visual depictions of disparities using MI and CHF trends. She recommended translating trends into action using either primary prevention to decrease incidence, or expert medical care to reduce fatalities. Roger' highlighted the lack of a universal CVD registry. Her further recommendations included the need to: 1) accrue events within the JHS and anchor

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them within population surveillance of Hinds, Madison and Rankin counties; 2) assess quality of care using Centers for Medicaid and Medicare Services (CMS) linkage data; and 3) use community-based participatory research to design interventions.

Herrington highlighted opportunities within the JHS to provide a unique contribution, not only to the African American community, but to the broader population at-large. He cited the alarming state of the US national health care expenditure as the primary reason to focus research in JHS toward addressing how to change the pattern of escalating health costs. He suggested that JHS can provide information that supports the need to improve health care efficiency. Additionally, Herrington suggested that research in the JHS cohort can generate information that may lead to better prevention strategies and improved health care delivery.

Fox discussed C-reactive protein (CRP) and brain natriuretic peptide (BNP) as novel biomarkers for CVD currently being explored in the JHS. Recent investigations in JHS have shown that CRP is heritable in the Jackson community, is related to obesity, and is independently related to chronic kidney disease.¹

Fox suggested that future studies on CRP should focus on whether it predicts clinical outcomes such as incident hypertension, MI and stroke. In regard to BNP, evidence in Whites suggests that it may be related to obesity, metabolic syndrome, hypertension and CVD. The JHS provides the opportunity to study BNP in African Americans to determine if similar relationships exist.² Fox also reported that novel measures of vascular endothelial function are being examined in the JHS cohort. A new vascular function laboratory for JHS will allow investigators to relate endothelial function and vascular stiffness to incident hypertension, subclinical disease, heart events and stroke.

REFERENCES

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