Educational support materials for ABIM’s Care for the Underserved Module

Question 5

African Americans have higher incidence and severity of congestive heart failure. Congestive heart failure in African Americans tends to present an earlier age and is associated with worse functional status, more frequent hospitalizations and possibly increased mortality.¹ The reasons for this increased incidence and severity of disease are thought to be due to the combination of a multitude of factors including poorer socioeconomic status; increased prevalence other illnesses such as hypertension and diabetes; less access to health care; disparity in the quality of health care received, such as treatment of hypertension; and differences in underlying physiology and genetics.¹ Some preliminary evidence suggests that African Americans have a slightly higher prevalence of some genetic polymorphisms that may influence the development of heart failure and the responsiveness to some medications such as ACE inhibitors, isosorbide dinitrate, and hydralazine.² Polymorphisms of the B1 and alpha-1 adrenergic receptors, of naturetic peptides; aldolase synthase, endothelial nitric oxide synthase (NOs3) and ACE loci have been all postulated to contribute to the burden of congestive heart failure in African-Americans.³

In the future, pharmacogenetics may allow us to distinguish which genetic features are contributing to disease in individual patients and allow treatments to be tailored accordingly. Until that time; however, it should be recognized that race is a concept that has emerged largely as a consequence of historical and sociopolitical forces rather than physiologic or scientific ones. Providers should be cautious when considering race as a proxy for genetics, a practice that has engendered substantial controversy.⁴,⁵

For further information, see the following:


This educational support material was created by the Society of General Internal Medicine’s Disparities Task Force. For more information, visit www.sgim.org/go/disparities