

Additional Considerations for Screening and Treatment of Depression in Patients With Acute Coronary Syndrome

To the Editor We write regarding the randomized clinical trial conducted by Kronish et al¹ that evaluated screening for depression (with and without follow-up treatment) vs no screening on outcomes (quality-adjusted life-years and depression-free days) in patients who survived an acute coronary syndrome (ACS) event. The authors did not observe a difference in outcome between the 3 study groups and concluded that systematic screening may not be justified in this population.¹ Their recommendation to reconsider the clinical guidelines that advocate depression screening after cardiovascular events² seems premature given some of the study's limitations.

First, the authors acknowledge a lower prevalence of depression than assumed in the power calculation, suggesting that the study is underpowered to support the conclusions presented.¹ Second, they do not provide descriptive information on the type (acute myocardial infarction vs unstable angina) or severity (ST-segment elevation vs non-ST-segment elevation myocardial infarction) of the qualifying ACS condition, which may affect the measured quality of life because prognosis and life expectancy differ by ACS condition.³ Third, the authors noted that depression symptoms change over time but did not justify the enrollment window (2 to 12 months after the ACS event) or summarize the distribution of lag time between ACS event and randomization into the study. Adjusted or stratified analysis by disease severity or lag time following an ACS event might have led to different conclusions than those observed. We applaud the authors for investigating outcomes other than cardiovascular mortality given their follow-up period; however, alternate conclusions might be drawn from the study data if more information were provided and a higher prevalence of depression from a larger sample size were evaluated.

Depression screening and treatment may confer an important health benefit in some subsets of patients with ACS. For example, heart disease is a leading cause of death among women, and depression (a modifiable risk factor for heart disease) is more prevalent among women than men, making women an important subgroup in the context of depression screening.⁴ Kronish et al¹ observed a statistically nonsignificant treatment difference in change in the 8-item Patient Health Questionnaire score among women, which may be clinically relevant. Although the study by Kronish

and colleagues was not powered to detect this difference, a study designed to investigate this contrast could elucidate the benefit of screening women for post-ACS depression symptoms. Future research should now focus on which populations would benefit most from depression screening and treatment as part of guidelines for the recovery of patients who have experienced ACS events.

Montika Bush, PhD
Bradley N. Gaynes, MD, MPH
Sidney C. Smith Jr, MD

Author Affiliations: Department of Emergency Medicine, School of Medicine, University of North Carolina, Chapel Hill (Bush); Department of Psychiatry, School of Medicine, University of North Carolina, Chapel Hill (Gaynes); Division of Cardiology, Department of Medicine, School of Medicine, University of North Carolina, Chapel Hill (Smith).

Corresponding Author: Montika Bush, PhD, Department of Emergency Medicine, School of Medicine, University of North Carolina, 170 Manning Dr, Campus Box No. 7594, Chapel Hill, NC 27599-7594 (mbush8@unc.edu).

Conflict of Interest Disclosures: None reported.

1. Kronish IM, Moise N, Cheung YK, et al. Effect of depression screening after acute coronary syndromes on quality of life: the CODIACS-QoL randomized clinical trial. *JAMA Intern Med.* 2019;180(1):45-53. doi:10.1001/jamainternmed.2019.4518
2. Lichtman JH, Bigger JT Jr, Blumenthal JA, et al; American Heart Association Prevention Committee of the Council on Cardiovascular Nursing; American Heart Association Council on Clinical Cardiology; American Heart Association Council on Epidemiology and Prevention; American Heart Association Interdisciplinary Council on Quality of Care and Outcomes Research; American Psychiatric Association. Depression and coronary heart disease: recommendations for screening, referral, and treatment: a science advisory from the American Heart Association Prevention Committee of the Council on Cardiovascular Nursing, Council on Clinical Cardiology, Council on Epidemiology and Prevention, and Interdisciplinary Council on Quality of Care and Outcomes Research: endorsed by the American Psychiatric Association. *Circulation.* 2008;118(17):1768-1775. doi:10.1161/CIRCULATIONAHA.108.190769
3. Ye F, Winchester D, Jansen M, et al. Assessing prognosis of acute coronary syndrome in recent clinical trials: a systematic review. *Clin Med Res.* 2019;17(1-2):11-19. doi:10.3121/cm.2019.1433
4. Bucciarelli V, Caterino AL, Bianco F, et al. Depression and cardiovascular disease: the deep blue sea of women's heart. *Trends Cardiovasc Med.* 2019;S1050-5173(19)30064-30067. doi:10.1016/j.tcm.2019.05.001