

**Mixed Efficacy for Routine Depression Screening in Cardiac Surgery Patients: Six Month Follow-up On Hospital Readmissions, Quality of Life and Mental Health**

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**Background:** International cardiology guidelines have attracted recent controversy due to recommendations for routine depression screening.

**Objective:** This study aims to report the 6-month outcomes of routine depression screening in cardiac surgery patients.

**Methods:** Depression screening consisted of the Patient Health Questionnaire (PHQ) administered 30-days after cardiac surgery. Complete data was obtained on 481 patients including; 46 patients (9.6%) identified by PHQ  $\geq 10$ , 90 depressed control group patients (18.7%) identified by anti-depressant use or history of depression, and 345 patients (71.7%) with PHQ  $\leq 9$ . Groups were compared at 6 months on major adverse cardiac event (MACE), hospital readmission, quality of life (SF-12), depression and psychotropic medication use.

**Results:** Patients identified by screening were at higher risk of MACE (adjusted odds ratio [OR] 2.16; 95% confidence interval [CI] .98 – 4.74,  $p = .06$ ) and PHQ  $\geq 10$  at 6-month follow-up (adjusted OR 6.54; 95% CI 3.16 – 13.53,  $p < .001$ ). Patients identified by screening were more likely to be initiated on anti-depressant and anxiolytic at 6-months (ORs 5.89 and 4.74 respectively). Sensitivity analyses showed symptomatic patients in the control group were at higher risk of six month depression (adjusted OR 4.49) than the depression screening group (adjusted OR 3.59).

Patients identified by screening had significantly poorer QOL in five domains after adjustment for covariates, preoperative QOL and Bonferroni correction (all  $p < .001$ ).

**Discussion:** Depression screening was associated with an increase in psychotropic medication use however depression, morbidity and quality of life remained poor at six months.