

13. Sub-optimal Cardiovascular Risk Reduction for Patients With Vascular Disease

Connie L. Zastrow, MD, Matthew W. Mell, MD, John R. Hoch, MD, Charles W. Acher, MD, Girma Tefera, MD, K. Craig Kent, MD and William D. Turnipseed, MD

From: University of Wisconsin, WI

OBJECTIVES: The goal of this study was to examine the use of cardiovascular risk factor modification for patients with vascular disease.

METHODS: Data was collected prospectively on consecutive patients with arterial disease seen in the vascular surgery outpatient clinic from April 2008 to October 2008. Data on risk factor modification was also collected, including tobacco use, monitoring of HgA1c within 6 months for diabetics, use of angiotensin converting enzyme (ACE) inhibitors, anti-platelet agents, and statins. A cardiovascular risk reduction deficiency (CVRD) score was assigned based on modifications in place. CVRD scores ranged from 0 (no deficiency) to 5 (5 deficiencies). Statistical analysis was performed using SAS software (Cary, NC).

RESULTS: Data on 481 patients was analyzed. Mean age was 70.4 +/- 10.9 years. Of the cohort, 574 deficiencies were identified: 78 (16.9%) were current smokers, 13 (12% of diabetics) had no recent HgA1c, 284 (57%) were not taking ACE inhibitors, 103 (21%) were not taking anti-platelet agents, and 149 (30%) were not on statin therapy. Recent cholesterol data were not documented for 280 (58.2%) patients, including 170 (51.1%) receiving statin therapy. Of those with recent cholesterol levels, 143 (71.1%) had an LDL < 100 but only 63 (31.3%) met target LDL < 70. Patients receiving statins were more likely to have LDL < 100 (75.5% vs. 52.6%, p=.009) but not more likely to have LDL < 70 (32.5% vs. 26.3%, p=.56) compared to those not on statins. Overall, the mean CVRD score was 1.93 +/- 1.01 for all visits. CVRD scores were better for patients with previously established cardiovascular disease (1.82 vs. 2.28, p<.02). CVRD scores were better for patients with carotid disease compared to lower extremity disease (1.41 vs. 1.78, p<.003); and for patients with lower extremity disease compared to aneurysmal disease (1.78 vs. 2.08, p<.001).

CONCLUSIONS: Patients with vascular disease receive sub-optimal risk reduction management, with an average of nearly two untreated factors per patient. For patients receiving specific risk factor modification target measures of control are not necessarily being evaluated or achieved. Our study suggests that improving health-care delivery strategies is necessary to maximally protect these high-risk patients from future cardiovascular events.