Financial Incentives to Reduce Lipid Levels

In a 4-group, multicenter, cluster randomized trial that enrolled 340 primary care physicians and 1503 of their patients who had hyperlipidemia and elevated cardiovascular disease risk, Asch and colleagues assessed whether outcome-related financial incentives for physicians, patients, or shared (both physician and patient) would be more effective than no incentives in achieving reductions in low-density lipoprotein cholesterol (LDL-C). The authors found that shared financial incentives for physicians and patients, but not incentives to physicians or patients alone, resulted in a statistically significant difference in reduction of LDL-C at 12 months.

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Revascularization Plus Exercise for Peripheral Artery Disease

Supervised exercise is the recommended first-line treatment of peripheral artery disease–related intermittent claudication. In a randomized trial involving 212 patients with intermittent claudication, Fakhry and colleagues found that compared with supervised exercise alone, endovascular revascularization followed by supervised exercise resulted in greater improvement in walking distances and health-related quality of life scores at 1 year. In an Editorial, McDermott discusses the role of endovascular procedures and supervised exercise in the treatment of peripheral artery disease.

Editorial 1921
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Myocardial Scar Prevalence and Associated Factors

In an analysis of data from 1840 participants in a prospective multiethnic cohort of middle-aged and older US adults who underwent study-related cardiac magnetic resonance imaging, Turkbey and colleagues assessed the prevalence of and factors associated with myocardial scarring. Among the authors’ findings was a myocardial scar prevalence of 7.9%, of which 78% were unrecognized by electrocardiography or clinical evaluation. Factors associated with myocardial scar included age, male sex, race/ethnicity, and traditional cardiovascular disease risk factors.
Does This Patient Have Acute Coronary Syndrome?  

Of the 8 million patients who present to US emergency departments with acute chest pain each year, approximately 10% are ultimately diagnosed with acute coronary syndrome (ACS). Early and accurate estimation of the probability of ACS in patients with acute chest pain ensures prompt assessment and treatment. Fanaroff and colleagues report results of a systematic review that identified 58 prospective studies assessing the accuracy of the history, physical examination, electrocardiogram, and risk scores for the diagnosis of ACS. The authors found that patient history, physical examination, and electrocardiogram findings alone cannot confirm or exclude the diagnosis of ACS; however, 2 clinical risk scores that incorporate the initial cardiac troponin level—the History, Electrocardiogram, Age, Risk Factors, Troponin (HEART) and Thrombolysis in Myocardial Infarction (TIMI) scores—provide useful diagnostic information.

Handling Missing Data: Multiple Imputation  

Missing data are common in research. This JAMA Guide to Statistics and Methods article by Li and colleagues considers multiple imputation—a statistical method for addressing missing data in research studies. The authors briefly review use of multiple imputation in data analyses and highlight the advantages and limitations of multiple imputation compared with single data imputation methods.

Exercise Treadmill Testing  

This JAMA Diagnostic Test Interpretation article by Polonsky and Blankstein considers the case of a 53-year-old man who reported occasional substernal chest pain when he ran more than 2 miles. He was referred for an exercise treadmill test. Resting electrocardiogram results were normal. The patient exercised for 13 minutes of a Bruce protocol without chest pain, and exercise was terminated because of patient fatigue. ST-segment depression was seen during recovery. How would you interpret the treadmill test results?