Antibiotic Prescription Strategies

In a trial of patients with uncomplicated respiratory infections, de la Poza Abad and colleagues randomized participants to 1 of 4 prescription strategies and demonstrated delayed antibiotic prescription strategies show similar symptomatic outcomes to immediate antibiotic prescription strategies. In cases of disease uncertainty, delayed strategies reduce antibiotic use but also patient belief in their effectiveness. de la Poza Abad and colleagues suggest that delayed antibiotic prescription strategies should be standard practice.

Invited Commentary 29

LESS IS MORE

Alternate Presentations of Low-Value Screenings

The delivery of low-value services is a problem for health care in the United States. However, little is known about the effectiveness of alternate presentations of benefits and harms to patients as a strategy to reduce overuse. Sheridan and colleagues found that a 1-page decision support sheet that lists benefits and harms presented as words, numbers, numbers and narratives, or numbers and framed presentations did not change patient intent for screening for 3 low-value screening services despite changing knowledge, general and disease-specific attitudes, perceived value, and the perceived net benefit of screening. Additional and more intensive interventions are needed to reduce overused screening services.

Invited Commentary 41

Nutritional Therapy and Medical Inpatients

To compare clinical outcomes of medical inpatients receiving nutritional support with control populations, Bally and colleagues performed a meta-analysis of 22 randomized clinical trials totaling 3736 participants. Results showed that nutritional support increased energy, protein intakes, and body weight in medical inpatients, but except for a significant reduction in the hospital readmission rates in nonelective admissions and a trend toward a shorter hospital stay in malnourished patients, there was little effect on clinical outcomes overall. In light of the prevalence of malnutrition in the medical inpatient population, Bally and colleagues call for high-quality trials to provide more definite conclusions.

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HEALTH CARE REFORM

Off-label Drug Use and Adverse Drug Events

EGuale and colleagues took advantage of the Medical Office of the XXIst Century electronic health record software to systematically evaluate the effect of off-label use on adverse drug events (ADEs). Out of 151 305 prescriptions written for 46 021 patients, 11.8% were prescribed for off-label use. Among off-label uses, 4 in 5 lacked strong scientific evidence. When compared with on-label use, off-label use without strong scientific evidence increased ADE risk by 54%. However, off-label use with strong scientific evidence did not increase ADE risk. These findings were adjusted for important patient-level and drug-level confounders, including patient age, sex, severity of illness, the number of drugs a patient was taking, drug class, and drug age.

Invited Commentary 63
Cost-effectiveness of Early Hepatitis C Treatment

Novel hepatitis C virus (HCV) treatments are highly effective but costly. Many insurers will approve treatment only after the onset of advanced fibrosis. Chahal and colleagues assessed the cost-effectiveness of treating all patients with HCV vs only those with advanced fibrosis and assessed the incremental cost-effectiveness of initiating treatment at each fibrosis stage. Chahal and colleagues used a decision-analytic model portraying the treatment of patients with HCV genotype 1 who were treatment-naïve and found that treating HCV at early fibrosis stages is likely to improve health outcomes and to be cost-effective but incurs substantial aggregate costs.

Adherence to HIV Preexposure Prophylaxis

In a US Preexposure Prophylaxis (PrEP) Demonstration Project conducted in sexually transmitted infection clinics and a community health center, Liu and colleagues found that the majority of men who have sex with men enrolled achieved high levels of adherence to PrEP. Adherence was higher among those reporting higher-risk behaviors, and was lower among African Americans and those with housing instability. Despite high rates of sexually transmitted infections, few participants became infected with HIV, and these infections occurred in the setting of low or no PrEP use.

Fitness in Youth and Outcomes in CARDIA

In this analysis of more than 25 years of data from the Coronary Artery Risk Development in Young Adults (CARDIA) study, Shah and colleagues investigated the relationship between cardiorespiratory fitness in early adults aged 18 to 30 years and the 7-year change in cardiorespiratory fitness on mortality, incident cardiovascular disease, coronary artery calcification, and left ventricular mass and systolic function on echocardiography. Cardiorespiratory fitness and change in cardiorespiratory fitness were associated with mortality and incident cardiovascular disease, as well as left ventricular mass and systolic function. However, fitness was not related to coronary artery calcification after 25 years, suggesting that the effect of fitness on cardiovascular disease may involve pathways different from those involved in coronary artery calcification.

Do-Not-Resuscitate Orders and Hospital Quality Comparisons

Despite the potential for do-not-resuscitate (DNR) orders to influence patient outcomes, patient DNR status is unaccounted for in current hospital quality measures. Among 90,000 adult patients with pneumonia hospitalized in California, Walkey and colleagues examined how analyses that account for between-hospital variation in patient DNR status might influence hospital mortality rankings and found that current methods of comparing hospitals penalize potentially high-quality hospitals admitting a larger proportion of patients who had chosen to forego resuscitation. Accounting for DNR status in programs that compare hospital mortality, outcomes may substantially affect publicly reportable hospital rankings and hospital reimbursements.