Research

**Brief Intervention for Patients With Problematic Drug Use**

The effective integration of substance use disorder interventions into health care settings such as emergency departments is a high priority in health care today. In this study, Bogenschutz and colleagues contrasted the effects of a brief intervention with telephone boosters with the effects of screening, assessment, and referral to treatment (SAR) and those of minimal screening only in a sample of 1285 emergency department patients with relatively high severity of drug use. Outcomes evaluated at follow-up visits included self-reported days using the patient-defined primary problem drug, days using any drug, days of heavy drinking, and drug use based on analysis of hair samples. The authors found that there were no significant differences between groups in any of the substance use outcomes, with the exception of a higher rate of hair samples positive for their primary drug of abuse in the SAR group than in either of the other 2 groups.

**Association of Arterial Catheters and Mortality**

Clinical effectiveness of frequent use of expensive and potentially harmful arterial catheters in intensive care units has not been formally evaluated in clinical studies. Gershengorn and colleagues conducted a propensity-matched cohort analysis to determine whether an association exists between arterial catheter use and hospital mortality in mechanically ventilated medical intensive care unit patients. The researchers found that arterial catheters were not associated with improvements in hospital mortality and recommend that randomized clinical trials are conducted to further evaluate the utility of these frequently used devices.

**Intermittent vs Continuous Proton Pump Inhibitors**

Current guidelines recommend a bolus of intravenous proton pump inhibitor (PPI) followed by continuous PPI infusion after endoscopic therapy in patients with high-risk bleeding ulcers; substitution of intermittent PPI therapy, if similarly effective, would decrease resource use. In a systematic review and meta-analysis of 13 studies and 1691 patients, Sachar and colleagues found intermittent PPI to be noninferior to continuous PPI infusion for the primary outcome of rebleeding. Results were also comparable for other predefined clinical outcomes such as red blood cell transfusion, hospital stay, need for urgent intervention, and mortality.

**LESS IS MORE**

**Medications of Questionable Benefit Used in Advanced Dementia**

Little is known about the use of medications of questionable benefit among patients with advanced dementia. In this nationwide study of 5406 US nursing home residents with advanced dementia, Tjia and colleagues found that the majority (54%) were prescribed at least 1 medication of questionable benefit. Use was lower among residents with advanced dementia who had eating problems or a do-not-resuscitate order or who were enrolled in hospice; use was greater among residents of facilities with high levels of feeding tube use and in certain geographic areas of the United States including the South Central and Pacific census regions. Questionable medication use accounted for 35% of these residents’ total average 90-day medication expenditures. Sachs provides an Invited Commentary on improving prescribing practices late in life.

- Invited Commentary 1771
- Continuing Medical Education jamanetworkcme.com
Research (continued)

Lack of Public Evidence About Implantable Devices 1781
Implanted medical devices do not require clinical trials to be cleared for market by the US Food and Drug Administration (FDA); instead, the applicant must provide the FDA and the public with scientific evidence that the new device is “substantially equivalent” to a device already on the market, called “predicate” devices. Zuckerman and colleagues found that scientific evidence of substantial equivalence was publicly available for only 8 of a sample of 50 newly cleared implants (16%) that went on the market from 2008 through 2012 and for 31 of their 1105 predicates (3%). Dietrich and Sharfstein provide an Invited Commentary on improving medical device regulation.

Invited Commentary 1779 Related Articles 1719 and 1773
Author Audio Interview jamainternalmedicine.com

Quality of Care for Elderly Patients With Pneumonia 1806
The efficacy and adherence of US acute care hospitals to publicly report pneumonia care procedures is uncertain. Lee and coauthors examined annual performance rates for 7 procedures reported by Medicare in 1 818 979 cases of pneumonia in elderly, fee-for-service Medicare recipients hospitalized across the United States. All 7 processes of care were independently associated with reduced odds of 30-day mortality, and many were associated with reduced odds of readmission.

Efficacy of Device-Guided Breathing for Hypertension 1815
Device-guided breathing is a form of biofeedback and is recommended (level B) by the American Heart Association as a nonpharmacological option for hypertension treatment. In this meta-analysis of individual patient data from blinded, randomized trials with active control groups, Landman and colleagues show that device-guided breathing has no relevant effects on office blood pressure in patients with hypertension.

Related Article 1849

Sex Differences in Mortality Among Patients With STEMI 1822
Although outcomes in patients with ST-segment elevation myocardial infarction (STEMI) have improved in the past 2 decades, a sex disparity exists in survival, with women having higher mortality than men. Pancholy and coauthors conducted a systematic review and meta-analysis to explore the gender gap in survival for patients with STEMI, including 35 observational studies representing 18 555 women and 49 981 men with STEMI treated using primary percutaneous coronary intervention. Findings from unadjusted analyses showed a 2-times higher risk for in-hospital all-cause mortality and a 1.5-times higher risk for 1-year all-cause mortality in women compared with men, but this association significantly attenuated when adjusted for differences between sexes in baseline cardiovascular risk profile and clinical presentation with STEMI.

Related Article 1868