Approximately one-third of deaths in the United States are from cardiovascular disease. Managing modifiable risk factors is paramount to reducing risk of heart disease and stroke. It is logical to try to identify patients with silent disease that may predispose them to significant morbidity and mortality. Unfortunately, it is unclear if routine screening for the presence of carotid stenosis, coronary artery disease, and peripheral arterial disease is beneficial. Many of these tests are expensive. This review explores the evidence behind screening tests, costs associated with the tests, and the implications of positive screening for each of the 3 listed conditions.

Palpitations are a symptom of many cardiac and noncardiac conditions. The patient’s history, physical examination, appropriately directed laboratory tests, and basic electrocardiogram are helpful in evaluating palpitations and may be essential to finding a diagnosis. There are many outpatient options for the evaluation of palpitations caused by a presumed cardiogenic cause. These evaluation tools include Holter monitor, event monitor, transtelephonic electrocardiographic monitor, treadmill exercise stress test, echocardiography, and electrophysiologic studies. Most patients can be evaluated as an outpatient, but there are reasons, such as hemodynamic compromise, that may require admission to an inpatient setting to complete the diagnostic workup.

Valvular heart disease is a common condition in today’s patient population. Accurate characterization of vital cardiac structures has become crucial to early diagnosis and varied treatment options. The advent of ultrasound technology has had a large impact in cardiovascular medicine, particularly in the assessment of valvular heart disease. Today its versatility and availability have allowed it to become one of the most frequently ordered imaging tests for cardiovascular indications. Despite the tremendous evidence that suggests that clinical examinations are still standard of care, a large volume of referrals for echocardiograms suggests differently.
Avoiding Unnecessary Preoperative Testing
Matthew H. Rusk

Given the low-risk nature of cataract surgery, no preoperative testing is indicated unless the patient needs it for another reason. Although electrocardiograms may have a role in preoperative testing in patients at high risk of cardiovascular disease, or if the procedure carries with it significant operative risks, they are often unnecessary. Urinalysis and coagulation studies should not be routine because they have not shown any value in predicting complications. Although these tests are not individually expensive, the aggregate cost is substantial. As good stewards of the medical system, physicians need to use these tests more judiciously.

The Cost-Effective Evaluation of Uncomplicated Headache
Marilyn Katz

Headaches remain one of the most common reasons for patients to seek acute care. It is important to assess whether the headache meets criteria for a primary (uncomplicated) versus a secondary headache, due to an underlying condition. A thorough history and physical examination are imperative when assessing the nature of the headache and to rule out red-flag features, which are signs and symptoms of dangerous causes. This will help determine if imaging studies are warranted. Management of uncomplicated headache should include treatment of the acute headache and an action plan for reducing the frequency and severity of future headaches.

The Cost-Effective Evaluation of Syncope
Steven Angus

Syncope is a common clinical problem that carries a high socioeconomic burden. A structured approach in the evaluation of syncope with special emphasis on a detailed history, comprehensive physical examination that includes orthostatic vital signs, and an electrocardiogram, proves to be the most cost-effective approach. The need for additional testing and hospital admission should be based on the results of the initial evaluation and use of risk-stratification tools that help identify those syncope patients at highest risk for poor outcomes.

Evidence-Based Evaluation and Management of Chronic Cough
Andreas Achilleos

Chronic cough is common and has a significant impact on the wellbeing of patients and the use and cost of health care services. Traditionally the approach to chronic cough in patients who are nonsmokers and are not taking an angiotensin-converting enzyme inhibitor has focused on the diagnosis and management of the upper airway cough syndrome, asthma, and reflux disease. The evaluation of patients with chronic cough frequently involves trials of empiric therapy for these 3 conditions. Chronic cough may be perpetuated by abnormalities of the cough reflex and sensitization of its afferent and central components.
Occult gastrointestinal bleeding is not visible and may present with a positive fecal occult blood test or iron deficiency anemia. Obsolete bleeding can be overt or occult, with no source identified despite an appropriate diagnostic workup. A stepwise approach to this evaluation after negative upper and lower endoscopy has been shown to be cost effective. This includes repeat endoscopies if warranted, followed by video capsule endoscopy (VCE) if no obstruction is present. If the VCE is positive then specific endoscopic intervention may be possible. If negative, patients may undergo either repeat testing or watchful waiting with iron supplements.

Approximately 10% to 15% of patients who experience chronic gastroesophageal reflux disease have Barrett esophagus, which is associated with an increased risk of esophageal adenocarcinoma. If symptoms persist after 8 weeks of adhering to treatment and lifestyle modifications, or if alarm symptoms develop, patients should be referred for screening upper endoscopy. Those with evidence of Barrett esophagus with dysplasia should be monitored in an endoscopic surveillance program, and those with high-grade dysplasia should consider surgical treatment.

Anemia is a prevalent disease with multiple possible etiologies and resultant complications. Iron deficiency anemia is a common cause of anemia and is typically due to insufficient intake, poor absorption, or overt or occult blood loss. Distinguishing iron deficiency from other causes of anemia is integral to initiating the appropriate treatment. In addition, identifying the underlying cause of iron deficiency is also necessary to help guide management of these patients. We review the key components to an evidence-based, cost-conscious evaluation of suspected iron deficiency anemia.

Pain related to various musculoskeletal conditions is a common patient complaint, and one that is often difficult to remedy. In addition to oral analgesics and physical therapy, local injections (most commonly of corticosteroids) are a common intervention and have been for decades. However, in most cases, the literature is full of poor-quality studies, making the true utility of these injections questionable. This article reviews some of the literature studying these injections with the goal of providing clinicians the information to make evidence-based, high-value choices.
Utilization and Safety of Common Over-the-Counter Dietary/Nutritional Supplements, Herbal Agents, and Homeopathic Compounds for Disease Prevention

Ruchir Trivedi and Marissa C. Salvo

Dietary supplements are commonly used by patients as part of their medical care plan. Often clinicians may not be aware of their use, because patients do not always consider these to be medications. All clinicians need to continually ask patients about their use of dietary supplements when collecting a medication history. Dietary supplements and prescription medications often share similar enzymatic pathways for their metabolism. These interactions may lead to severe adverse reactions. This article reviews available evidence for a variety of dietary supplements in select disease categories.

Cancer Screening in Older Adults

Ashley H. Snyder, Allison Magnuson, and Amy M. Westcott

When screening for cancer in older adults, it is important to consider the risks of screening, how long it takes to benefit from screening, and the patient’s comorbidities and life expectancy. Delivering high-value care requires the consideration of evidence-based screening guidelines and careful selection of patients. This article considers the impact of cancer. It explores perspectives on the costs of common cancer screening tests, illustrates how using life expectancy can help clinicians determine who will benefit most from screening, and provides tools to help clinicians discuss with their older patients when it may be appropriate to stop screening for cancer.

Symptom Control at the End of Life

Margaret Kreher

Symptom control at the end of life is an identified ongoing gap in end-of-life care. Increased demand for high-quality symptom control; limited supply of specialty trained clinicians; lack of consistent high-quality evidence-based interventions; and education deficits among clinicians, patients, and families in end-of-life processes contribute to this gap. High-value end-of-life care is centered on high-quality communication about goals of care. This article reviews primary palliative care concepts of communication and symptom control to provide a framework for primary care physicians to use in the care of patients at the end of life.

Treating Dyspnea: Is Oxygen Therapy the Best Option for All Patients?

Jennifer Baldwin and Jaclyn Cox

The high prevalence of dyspnea at the end of life carries with it significant health and economic burden. Given the complex mechanism of dyspnea, management should be tailored to the individual patient experience and the underlying disease process. No clear role for supplemental oxygen has been established in the treatment of dyspnea in patients without hypoxemia, and providers should consider the negative effects of oxygen supplementation. Symptom control with medications, exercise, behavioral therapy, treatment of associated anxiety, and the use of fans may be more
effective and less costly than oxygen therapy. Further research is needed in the assessment and treatment of this symptom to more effectively treat patients.

The Role of Intravenous Fluids and Enteral or Parenteral Nutrition in Patients with Life-limiting Illness

Meghan E. Lembeck, Colette R. Pameijer, and Amy M. Westcott

The decision of whether or not to use artificial nutrition or hydration is one with which many health care providers, patients, and families struggle. These decisions are particularly challenging in the setting of life-limiting illness, which is often associated with a prolonged decline because of medical advances in these patient populations. A patient-centered and family-centered approach helps to attain high-quality care in this special population.

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