Choosing Wisely Recommendations

Don’t order sinus computed tomography (CT) or indiscriminately prescribe antibiotics for uncomplicated acute rhinosinusitis.

Don’t routinely prescribe antibiotics for acute mild-to-moderate sinusitis unless symptoms last for seven or more days, or symptoms worsen after initial clinical improvement. Symptoms must include discolored nasal secretions and facial or dental tenderness when touched. Most sinusitis in the ambulatory setting is due to a viral infection that will resolve on its own. Despite consistent recommendations to the contrary, antibiotics are prescribed in more than 80 percent of outpatient visits for acute sinusitis. Sinusitis accounts for 16 million office visits and $5.8 billion in annual health care costs.

Don’t prescribe antibiotics for otitis media in children aged 2–12 years with non-severe symptoms where the observation option is reasonable.

Antibiotics should not be used for apparent viral respiratory illnesses in Pediatrics (sinusitis, pharyngitis, bronchitis).

Don’t diagnose or manage asthma without spirometry.

Don’t rely on antihistamines as first-line treatment in severe allergic reactions.

Don’t routinely avoid influenza vaccination in egg-allergic patients.

Avoid routine multiple daily self-glucose monitoring in adults with stable type 2 diabetes on agents that do not cause hypoglycemia.

Don’t prescribe testosterone therapy unless there is biochemical evidence of testosterone deficiency.

Don’t obtain imaging studies in patients with non-specific low back pain.

Don’t do imaging for low back pain within the first six weeks, unless red flags are present. Red flags include, but are not limited to: severe or progressive neurological deficits, or when serious underlying conditions exist, such as osteomyelitis, trauma history, unintentional weight loss, immunosuppression, history of cancer, intravenous drug use, steroid use, osteoporosis, age > 50, or progression of symptoms.

Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs. Low back pain is the fifth most common reason for all physician visits.

Don’t recommend advanced imaging (e.g., MRI) of the spine within the
first six weeks in patients with non-specific acute low back pain in the absence of red flags.
In the absence of red flags, advanced imaging within the first six weeks has not been found to improve outcomes, but does increase costs.

Don’t use dual-energy x-ray absorptiometry (DEXA) screening for osteoporosis in women younger than 65 or men younger than 70 with no risk factors.
DEXA is not cost effective in younger, low-risk patients, but is cost effective in older patients.

Don’t use glucosamine and chondroitin to treat patients with symptomatic osteoarthritis of the knee.
Both glucosamine and chondroitin sulfate do not provide relief for patients with symptomatic osteoarthritis of the knee.

Don’t perform population based screening for 25-OH-Vitamin D deficiency.
Vitamin D deficiency is common in many populations, particularly in patients at higher latitudes, during winter months and in those with limited sun exposure. Over the counter Vitamin D supplements and increased summer sun exposure are sufficient for most otherwise healthy patients. Laboratory testing is appropriate in higher risk patients when results will be used.

Avoid nonsteroidal anti-inflammatory drugs (NSAIDs) in individuals with hypertension or heart failure or CKD of all causes, including diabetes.
The use of NSAIDs, including cyclo-oxygenase type 2 (COX-2) inhibitors, for the pharmacological treatment of musculoskeletal pain can elevate blood pressure, make antihypertensive drugs less effective, cause fluid retention and worsen kidney function in these individuals. Other agents such as acetaminophen, tramadol or short-term use of narcotic analgesics may be safer than and as effective as NSAIDs.

Don’t order annual electrocardiograms (EKGs) or any other cardiac screening for low-risk patients without symptoms.
There is little evidence that detection of coronary artery stenosis in asymptomatic patients at low risk for coronary heart disease improves health outcomes. False-positive tests are likely to lead to harm through unnecessary invasive procedures, over-treatment and misdiagnosis. Potential harms of this routine annual screening exceed the potential benefit.

Don’t screen for carotid artery stenosis (CAS) in asymptomatic adult patients.
There is good evidence that for adult patients with no symptoms of carotid artery stenosis, the harms of screening outweigh the benefits. Screening could lead to non-indicated surgeries that result in serious harms, including death, stroke and myocardial infarction.

**Don’t recommend CEA for asymptomatic carotid stenosis unless the complication rate is low (<3%).**

**Don’t require a pelvic exam or other physical exam to prescribe oral contraceptive medications.**

**Don’t perform Pap smears on women younger than 21 or who have had a hysterectomy for non-cancer disease.**
Most observed abnormalities in adolescents regress spontaneously, therefore Pap smears for this age group can lead to unnecessary anxiety, additional testing and cost. Pap smears are not helpful in women after hysterectomy (for non-cancer disease) and there is little evidence for improved outcomes.

**Don’t screen women older than 65 years of age for cervical cancer who have had adequate prior screening and are not otherwise at high risk for cervical cancer.**

**Don’t screen women younger than 30 years of age for cervical cancer with HPV testing, alone or in combination with cytology.**
There is adequate evidence that the harms of HPV testing, alone or in combination with cytology, in women younger than 30 years of age are moderate. The harms include more frequent testing and invasive diagnostic procedures such as colposcopy and cervical biopsy. Abnormal screening test results are also associated with psychological harms, anxiety and distress.

**Don’t treat patients who have mild dysplasia of less than two years in duration.**
Mild dysplasia (Cervical Intraepithelial Neoplasia [CIN 1]) is associated with the presence of the human papillomavirus (HPV), which does not require treatment in average risk women. Most women with CIN 1 on biopsy have a transient HPV infection that will usually clear in less than 12 months and, therefore, does not require treatment.

**Don’t perform screening for cervical cancer in low-risk women aged 65 years or older and in women who have had a total hysterectomy for benign disease.**
Health care professionals should not perform cervical cancer screening in women who have had a hysterectomy that removed their cervix and do not have a history of high-grade precancerous lesions or cervical cancer. Screening provides no benefits to these patients and may subject them to potential risks.
from false-positive results; including physical (e.g., vaginal bleeding from biopsies) or psychological (e.g., anxiety).
In addition, cervical cancer screening should not be performed on women over the age of 65 that are at low risk for cervical cancer and have had negative results from prior screenings. Health care professionals should make this decision on a case-by-case basis, but once a patient stops receiving screenings, in general, they should not re-start screenings. Screening for women in this population provides little to no benefit as the incidence and prevalence of cervical disease declines for women starting at age 40–50 years.

**Don’t screen for ovarian cancer in asymptomatic women at average risk.**
In population studies, there is only fair evidence that screening of asymptomatic women with serum CA-125 level and/or transvaginal ultrasound can detect ovarian cancer at an earlier stage than it can be detected in the absence of screening. Because of the low prevalence of ovarian cancer and the invasive nature of the interventions required after a positive screening test, the potential harms of screening outweigh the potential benefits.

**Don’t routinely screen for prostate cancer using a prostate-specific antigen (PSA) test or digital rectal exam.**
There is convincing evidence that PSA-based screening leads to substantial over-diagnosis of prostate tumors. Many tumors will not harm patients, while the risks of treatment are significant. Physicians should not offer or order PSA screening unless they are prepared to engage in shared decision making that enables an informed choice by patients.

**Don’t screen adolescents for scoliosis.**

**Don’t recommend percutaneous feeding tubes in patients with advanced dementia; instead, offer oral assisted feeding.**
In advanced dementia, studies have found feeding tubes do not result in improved survival, prevention of aspiration pneumonia, or improved healing of pressure ulcers. Feeding tube use in such patients has actually been associated with pressure ulcer development, use of physical and pharmacological restraints, and patient distress about the tube itself. Assistance with oral feeding is an evidence-based approach to provide nutrition for patients with advanced dementia and feeding problems; in the final phase of this disease, assisted feeding may focus on comfort and human interaction more than nutritional goals.

**Don’t delay palliative care for a patient with serious illness who has physical, psychological, social or spiritual distress because they are pursuing disease-directed treatment.**
Numerous studies—including randomized trials—provide evidence that palliative care improves pain and symptom control, improves family
satisfaction with care and reduces costs. Palliative care does not accelerate death, and may prolong life in selected populations.

**Don’t leave an implantable cardioverter-defibrillator (ICD) activated when it is inconsistent with the patient/family goals of care.**

**Don’t perform preoperative medical tests for eye surgery unless there are specific medical indications.**

**Don’t use homeopathic medications, non-vitamin dietary supplements or herbal supplements as treatments for disease or preventive health measures.** Alternative therapies are often assumed safe and effective just because they are “natural.” There is a lack of stringent quality control of the ingredients present in many herbal and dietary supplements. Reliable evidence that these products are effective is often lacking, but substantial evidence exists that they may produce harm. Indirect health risks also occur when these products delay or replace more effective forms of treatment or when they compromise the efficacy of conventional medicines.

**Don’t remove mercury-containing dental amalgams.** Mercury-containing dental amalgams release small amounts of mercury. Randomized clinical trials demonstrate that the mercury present in amalgams does not produce illness. Removal of such amalgams is unnecessary, expensive and subjects the individual to absorption of greater doses of mercury than if left in place.

**Don’t recommend “detoxification” through colon cleansing or promoting sweating for disease treatment or prevention.** No objective scientific evidence supports a role for colonic irrigation for “detoxification.” No US FDA-approved colonic hydrotherapy systems exist for nonmedical purposes like colon cleansing. Colonic cleansing through hydrotherapy, laxatives or cathartics may result in cramping, pain, dehydration, electrolyte imbalances, infections and bowel perforation. Promoting sweating doesn’t produce clinically relevant toxin elimination. Methods to promote sweating may cause heat stroke, dehydration, burns, myocardial injury, carbon monoxide poisoning and liver or kidney damage, which might compromise toxin elimination.

**Don’t obtain screening exercise electrocardiogram testing in individuals who are asymptomatic and at low risk for coronary heart disease.**

**Don’t obtain preoperative chest radiography in the absence of a clinical suspicion for intrathoracic pathology.**
Don’t use whole-body scans for early tumor detection in asymptomatic patients.
Whole-body scanning with a variety of techniques (MRI, SPECT, PET, CT) is marketed by some to screen for a wide range of undiagnosed cancers. However, there is no data suggesting that these imaging studies will improve survival or improve the likelihood of finding a tumor (estimated tumor detection is less than 2% in asymptomatic patients screened). Whole-body scanning has a risk of false positive findings that can result in unnecessary testing and procedures with additional risks; including considerable exposure to radiation with PET and CT, a very small increase in the possibility of developing cancer later in life, and accruing additional medical costs as a result of these procedures. Whole-body scanning is not recommended by medical professional societies for individuals without symptoms, nor is it a routinely practiced screening procedure in healthy populations.

Don’t use expensive medications when an equally effective and lower-cost medication is available.
On average, the cost of a generic drug is 80–85% lower than the name-brand product, although generic drugs are required to have the same active ingredients, strength and similar effectiveness as brand-name drugs. Studies estimate that for every 10% increase in the use of generic cholesterol drugs, Medicare costs could be reduced by $1 billion annually.

Avoid colorectal cancer screening tests on asymptomatic patients with a life expectancy of less than 10 years and no family or personal history of colorectal neoplasia.
Screening for colorectal cancer has been shown to reduce

Don’t recommend screening for breast, colorectal, prostate or lung cancer without considering life expectancy and the risks of testing, overdiagnosis and overtreatment.

Avoid using prescription appetite stimulants or high-calorie supplements for treatment of anorexia or cachexia in older adults; instead, optimize social supports, discontinue medications that may interfere with eating, provide appealing food and feeding assistance, and clarify patient goals and expectations.

Don’t obtain a urine culture unless there are clear signs and symptoms that localize to the urinary tract.
Chronic asymptomatic bacteriuria is frequent in the LTC setting,

Don’t recommend aggressive or hospital-level care for a frail elder without a clear understanding of the individual’s goals of care and the possible benefits and burdens.
Hospital-level care has known risks, including delirium, infections, side effects of medications and treatments, disturbance of sleep, and loss of mobility and function. These risks are often more significant for patients in the PA/LTC setting, who are more likely to be frail and to have multimorbidity, functional limitations and dementia. Therefore, for some frail elders, the balance of benefits and harms of hospital-level care may be unfavorable. To avoid unnecessary hospitalizations, care providers should engage in advance care planning by defining goals of care for the patient and discussing the risks and benefits of various interventions, including hospitalization, in the context of prognosis, preferences, indications, and the balance of risks and benefits. Advance directives such as the Physician Orders for Life Sustaining Treatment (POLST) paradigm form and Do Not Hospitalize (DNH) orders communicate a patient’s preferences about end-of-life care. Patients with DNH orders are less likely to be hospitalized than those who do not have these directives. Patients who opt for less-aggressive

Don’t continue life support for patients at high risk for death or severely impaired functional recovery without offering patients and their families the alternative of care focused entirely on comfort.