Choosing Wisely XVII

Topics from The Society for Post-Acute and Long-Term Care Medicine

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This is my 17th article on "Choosing Wisely" from the Board of Internal Medicine Foundation. As previously noted, each specialty group is developing "Five or Ten Things Physicians and Patients Should Know."

I. RECOMMENDATIONS FROM THE SOCIETY FOR POST-ACUTE AND LONG-TERM CARE MEDICINE (AMDA)

1. For individuals with advanced dementia, offer oral assisted feedings instead of inserting percutaneous feeding tubes. Tube feeding does not ensure patient's comfort or reduce suffering. It can cause fluid overload, diarrhea, abdominal pain, local complications, less human interaction and may increase the risk of aspiration. Assistance with oral feeding is an evidence-based approach to provide nutrition for patients with advance dementia and feeding problems.[1]

2. Long-term diabetes management for individuals residing in nursing homes should not include sliding scale insulin (SSI). Basal insulin, or basal plus rapid-acting insulin with one or more meals (often called basal/bolus insulin therapy), most closely mimics normal physiologic insulin production and controls blood glucose more effectively. Evidence shows that SSI is neither effective in meeting the body's insulin needs, nor efficient in the setting of long-term care. It increases patient discomfort and nursing time, and can also increase the risk of either prolonged periods of hyperglycemia or episodes of hypoglycemia, as it may be administered without regard to meal intake.

3. Unless there are clear signs and symptoms that localize an infection to the urinary tract, don't obtain a urine culture. Chronic asymptomatic bacteriuria has a prevalence rate as high as 50% in the long-term care (LTC) setting. A patient with advanced dementia might be unable to report urinary symptoms, in which case it's reasonable to obtain a urinary culture, provided there are signs of systemic infection such as fever (temperature of ≥ 2° F), leukocytosis, or a left shift or chills, without additional symptoms that suggest an alternative source of infection.

4. In individuals with dementia without an assessment for an underlying cause of abnormal behavior, don't prescribe anti-psychotic medications for behavioral and psychological symptoms of dementia (BPSD). The therapeutic goal of anti-psychotic medications is to treat patients who present an imminent threat of harm to self or others, or are in extreme distress – not to treat non-specific agitation or other forms of lesser distress. When an anti-psychotic is used for BPSD, it is advisable to obtain informed consent. Look for and identify and treat underlying causes (including pain, constipation, and environment factors such as noise, being too cold or warm, and etc.)

5. Individuals with a limited life expectancy should not routinely be prescribed lipid-lowering medications. Studies show that elderly patients with the lowest cholesterol have the highest mortality after adjusting for other risk factors. Patients older than 85 may have a less favorable risk-benefit ratio for statins, since the benefits may be diminished by a shorter life expectancy, while the risks are increased (cognitive impairment, falls, neuropathy and muscle damage).[2]

6. Urinary incontinence should not be managed by placing an indwelling urinary catheter. When an indwelling catheter is in use, the bladder is the most common source of bacteremia in the post-acute and long-term care (PA/LTC) setting. The Healthcare Infection Control Practices Advisory Committee recommends not using a catheter to manage urinary incontinence in the PA/LTC setting. Indications, however, do include acute retention or outlet obstruction, to assist in healing of deep sacral or perineal wounds in patients with urinary incontinence, and to provide comfort at the end of life if needed.

7. If life expectancy is estimated to be less than ten years, don't recommend screening for breast, colorectal or prostate cancer. Multi-morbidity and advancing age significantly alter the risk-benefit ratio.

8. If symptoms of a clostridium difficile infection (CDI) have resolved, don't obtain a C-difficile toxin test to confirm a "cure" unless the patient is symptomatic. C-difficile tests may remain positive for

as long as 30 days after symptoms have resolved. The spread of CDI should be limited by early detection of symptomatic patients and consistent use of proper infection control practices, including frequent handwashing with soap and water, contact precautions, and environmental cleaning with 1:10 dilution of sodium hypochloride (bleach) prepared fresh daily.

9. Before recommending aggressive or hospital-level care for a frail elder, understand the individual's goals of care and 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. Advanced Directives such as Physician Orders for Life-Sustaining Treatment (POLST) and Do Not Hospitalize (DNH) orders communicate a patient's preferences about end-of-life care, and make it less likely they will be subjected to unnecessary, unpleasant, and invasive interventions and hospitalization.

10. Individuals aged 60 years or greater with systolic blood pressure (SBP) under 150 mm Hg or diastolic blood pressure (DBP) less than 90 mm Hg should not have antihypertensive treatment initiated. Achieving a SBP of <150 mm Hg reduces the incidences of stroke, all-cause mortality, and heart failure, but there is no evidence of benefit from more aggressive treatment to < 140 mm Hg in the general population of those 60 and older. Moderate or high-intensity treatment of hypertension in older adults increases the risk of serious falls.[3]

II. RECOMMENDATIONS FROM THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY (ASE)

1. After a finding of trace valvular regurgitation on an initial echocardiogram, don't order follow-up or serial echocardiograms for surveillance. The clinical significance of a small amount of aortic regurgitation in an otherwise normal echo study is unknown. Trace mitral, tricuspid and pulmonic regurgitation can be detected in 70% to 90% of normal individuals and has no adverse clinical implications.

2. In stable, asymptomatic patients with a murmur or a click and no significant pathology on a previous echo, don't repeat it. Repeat imaging is not indicated unless there has been a clinical change in the patient's condition.

3. If the patient has no history or symptoms of heart disease, avoid echocardiograms for pre-operative/perioperative assessment. Resting left ventricular function is not a consistent predictor of perioperative ischemic events, even in those with reduced left ventricular systolic function. Perioperative echocardiography should be used to clarify signs or symptoms of cardiovascular disease, or to investigate abnormalities on other heart tests.[4]

4. Avoid stress echocardiograms in asymptomatic patients who meet "low-risk" scoring criteria for coronary disease. Stress echocardiography is mostly used in symptomatic patients to assist in the diagnosis of obstructive coronary artery disease.

5. If a source of embolization has been identified and patient management will not change, avoid transesophageal echocardiography (TEE). Tests should only be ordered if they will alter clinical management, and protocol-driven testing should always be individualized to the particular patient. While TEE is safe, even the small degree of risk associated with the procedure is not justified if there is no expected clinical benefit.

III. RECOMMENDATIONS FROM THE AMERICAN SOCIETY OF RADIATION ONCOLOGY (ASTRO)

1. In women 50 years of age and older with early stage invasive breast cancer consider shorter treatment schedules before initiating whole breast radiotherapy as a part of breast conservation therapy. Whole breast radiotherapy decreases local recurrence and improves survival of women with invasive breast cancer treated with breast conservation therapy. Most studies have utilized "conventionally fractionated" schedules that deliver therapy over 5-6 weeks, often followed by 1-2 weeks of boost therapy. Recent studies, however, have demonstrated equivalent tumor control and cosmetic outcome in specific patient populations with shorter courses of therapy (approximately 4 weeks). Patients and their physicians should review these options to determine the most appropriate course of therapy.

2. Management of low-risk prostate cancer should not be initiated without discussing active surveillance. Sharing decision-making between the patient and the physician can lead to better alignment of patient goals with treatment and more efficient care delivery. ASTRO has published patient-directed written decision aids concerning prostate cancer and numerous other types of cancer.[5]

3. Palliation of bone metastases should not routinely use extended fractionation schemes (> 10 fractions). A single treatment is more convenient, but may be associated with a slightly higher rate of

retreatment to the same site. Strong consideration should be given to a single 8 Gy fraction for patients with a limited prognosis or with transportation difficulties. Equivalent pain relief is suggested following 30 Gy in 10 fractions, 20 Gy in 5 fractions, or a single 8 Gy fraction.

4. For prostate cancer, don't routinely recommend proton beam therapy outside of a prospective clinical trial or registry. Clinical trials are still needed to establish a possible advantage of this expensive therapy.

5. To deliver whole breast radiotherapy as part of breast conservation therapy, don't routinely use intensity modulated radiotherapy (IMRT). Lower rates of skin toxicity after using modern 3-D conformal techniques relative to older methods of 2-D planning have been suggested in clinical trials. If the anatomy is unusual IMRT may be of benefit in select cases, but routine use has not been demonstrated to provide significant clinical advantage.

6. After a hysterectomy for endometrial cancer with low risk disease, do not recommend postoperative radiation. Patients with: no residual disease in the resected uterus despite a positive biopsy; grade 1 or 2 disease with < 50% myometrial invasion; and no additional high-risk features such as age over 60, lymphovascular invasion, or cervical involvement, have a very low risk of recurrence following surgery. Meta-analysis studies of radiation therapy for low-risk endometrial cancer demonstrate increased side effects with no benefit in overall survival compared with surgery alone.

7. Patients who have had resections of non-small-cell lung cancer (NSCLC) with negative margins (NO-1 disease) should not be routinely offered radiation therapy. Patients with early stage NSCLC have several management options following surgery, including observation, chemotherapy and radiotherapy. Two meta-analyses of post-operative radiotherapy in early NSCLC with node negative or N 1 disease suggest increase side effects with no benefit for disease-free survival or overall survival compared to observation. Those with positive margins following surgery may benefit from post-operative radiotherapy to improve local control regardless of status of their nodal disease.

8. Defining goals of treatment with the patient and considering referral for palliative care should be done before initiating non-curative radiation therapy. Palliative care can be delivered concurrently with anti-cancer therapies. Early palliative care intervention may improve patient outcomes, including survival.

9. Women who have had radiotherapy following breast conserving surgery don't routinely need follow-up mammograms more often than annually. Patients should wait 6-12 months after the completion of radiation therapy to begin their annual mammogram surveillance. Findings on exam or imaging that are obviously suspicious warrant a shorter interval between mammograms. Studies show that annual mammograms are the appropriate frequency for surveillance of breast cancer patients who have had breast conserving surgery and radiation therapy; there is no clear advantage to shorter interval imaging.[6]

10. Adjuvant whole brain radiation therapy (WBRT) should not routinely be added to stereotactic radiosurgery (SRS) for limited brain metastases. Randomized studies have demonstrated no overall benefit from the addition of WBRT to SRS in the management of select patients with good performance status and brain metastases from solid tumors. The addition of these treatments is associated with diminished cognitive function and worse patient-reported fatigue and quality of life. Careful surveillance and judicious use of salvage therapy at the time of brain relapse allow appropriate patients to enjoy the highest quality of life without a detriment in overall survival.

Top Tips

CLINICAL PRACTICE GUIDELINE: OTITIS MEDIA WITH EFFUSION: UPDATE FROM THE AMERICAN ACADEMY OF OTOLARYNGOLOGY-HEAD AND NECK SURGERY FOUNDATION

OME is defined as the presence of fluid in the middle ear without signs or symptoms of acute ear infection. Surveillance data suggests that some physicians still treat otitis media with effusion (OME) inappropriately with antibiotics, which can lead to adverse events and bacterial resistance. Antibiotic treatment has not been shown to reduce hearing loss or the need for tympanostomy tubes, as OME normally resolves on its own.

The key action statements include the following:

1) Pneumatic Otoscopy: A clinician should perform pneumatic otoscopy to assess for OME in a child with otalgia, hearing loss, or both and document the presence of middle ear effusion.

2) Tympanometry: Clinicians should obtain tympanometry in children with suspected OME for

whom the diagnosis is uncertain after performing (or attempting) pneumatic otoscopy.

3) Failed Newborn Hearing Screen: For infants who fail such a screen, clinicians should document in the medical record counseling of the parents regarding the importance of follow-up to ensure that hearing is normal after OME resolves, and to exclude an underlying sensorineural hearing loss.

4) Identifying At-Risk Children: Clinicians should determine if a child with OME is at increased risk for speech, language, or learning problems from middle ear effusion because of baseline sensory, physical, cognitive, or behavioral factors.

5) Evaluating At-Risk Children: Clinicians should evaluate at-risk children for OME at the time of diagnosis of an at-risk condition, and at 12-18 months of age (if diagnosed as being at-risk prior to this time).

6) Screening Healthy Children: Clinicians should not routinely screen children for OME who are not at-risk and do not have symptoms that may be attributable to OME, such as hearing difficulties, balance (vestibular) problems, poor school performance, behavioral problems, or ear discomfort.

7) Patient Education: Clinicians should educate families of children with OME regarding the natural history of OME, the need for follow-up, and possible sequelae.

8) Watchful Waiting: Clinicians should manage the child with OME who is not at-risk with watchful waiting for 3 months from the onset of effusion (if known), or for 3 months from the date of diagnosis (if onset is unknown).

9) Steroids: Clinicians should recommend against using intranasal steroids or systemic steroids for treatment of OME.

a) Antibiotics: Clinicians should recommend against using systemic antibiotics for treating OME.

b) Antihistamines or Decongestants: Clinicians should recommend against using antihistamines, decongestants, or both for treating OME.

10) Hearing Tests: Clinicians should obtain an age-appropriate hearing test if OME persists for ≥ 3 months, or for OME of any duration in an at-risk child.

11) Speech and Language: Clinicians should counsel families of children with bilateral OME and documented hearing loss about the potential impact on speech and language development.

12) Surveillance of Chronic OME: Clinicians should re-evaluate, at 3-6 month intervals, children with chronic OME until the effusion is no longer present, significant hearing loss is identified, or structural abnormalities of the eardrum or middle ear are suspected.

13) Surgery for Children Under 4 Years of Age: Clinicians should recommend tympanostomy tubes when surgery is performed for OME in a child less than 4 years old; adenoidectomy should not be performed unless a distinct indication (e.g., nasal obstruction, chronic adenoiditis) exists other than OME.

14) Surgery for Children ≥ 4 Years of Age: Clinicians should recommend tympanostomy tubes, adenoidectomy, or both when surgery is performed for OME in a child aged 4 years or older.

15) Outcome Assessment When Managing a Child With OME: Clinicians should document in the medical record resolution of OME, improved hearing, or improved quality of life.[7]

CLINICAL PRACTICE GUIDELINES FOR COLORECTAL CANCER SCREENING[8]

The United States Preventive Services Task Force (USPSTF) strongly recommends screening for colorectal cancer (an A recommendation). The guideline lists 7 different screening strategies, and says that the "screening tests are not presented in any preferred or ranked order." The Task Force, however, does present evidence that some strategies are better than others when tested in representative populations. Four strategies result in essentially the same life expectancy gains and consumption of health care resources: colonoscopy, fecal immunochemical testing (FIT) for occult blood, sigmoidoscopy plus FIT, and computed tomography (CT) colonography. The Task Force lists the FIT-DNA test (multi-targeted stool DNA tests) but states that it is less efficient. Finally, the Task Force lists two strategies (guaiac based fecal occult blood testing [gFOBT] and sigmoidoscopy alone) that though effective, are inferior to the other listed strategies.

The Task Force states a principal that may explain why they don't specify a preference even though some tests are more effective than others: "the best screening test is the one that gets performed." It's important to share decision-making in which a physician and patient share information and reach a consensus about what screening test is best. These choices don't necessarily have similar outcomes or equivalent efficiency.

The Task Force recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy beginning at age 50 and

continuing until 75 years. For private insurers, the A recommendation mandates coverage for colorectal cancer screening, but the lack of a statement indicating that the Task Force recommends specific tests or strategies leaves some ambiguity about whether private insurance must cover each of the specific tests.

TWO-THIRDS OF CLINICAL TRIALS ARE UNPUBLISHED TWO YEARS LATER[9]

Leading academic research centers are doing a poor and inconsistent job of disseminating results of clinical trials, which leads to serious information gaps and ethical lapses. One study showed that just 29% of completed trials at 51 major research centers had been published two years after completion, and a mere 13% had submitted their results to ClinicalTrials.gov. Delay in disseminating data denies health care providers and researchers crucial information. For example, had trial data been made available in a timely fashion, the cardiovascular risks of Vioxx would have been realized years before it was taken off the market in 2004.

Across institutions, the proportion of trials that disseminated results within 24 months ranges from 10.8% (University of Nebraska) to 40.3% (Yale University). For ClinicalTrials.gov, the overall range for reporting of results ranged from 4.1% (Memorial Sloan-Kettering Cancer Center) to 55.4% (MD Anderson Cancer Center).

Researchers have called for timely action to correct this lapse in commitment to the investigative mission and failure to follow through on the research process. Harlan Krumholz, M.D., Professor of Medicine at Yale University, stated that he is at a loss to understand the lapse in data sharing, which he considers immoral. He noted that those with concerns about a drug could perhaps tap into trial results by checking relevant studies registered on ClinicalTrials.gov and asking the investigators directly to share their unreported data.

INDICATIONS FOR ANTIBIOTICS IN THE MANAGEMENT OF SKIN ABSCESS[10]

Emergence of methicillin-resistant staphylococcus aureus (MRSA) raises uncertainty regarding the role of antibiotics for treatment of skin abscess following I and D. On the basis of a randomized trial, this article suggests antibiotic therapy as adjunctive therapy to incision and drainage (I and D) for many patients with a skin abscess that is ≥ 2 cm (Grade 2b).

The trial involved 1220 patients over the age of 12, with a median age of 35, who had drainage of a skin abscess (≥ 2 cm in diameter). Wound cultures were positive for MRSA in 45% of the cases. Trimethoprim Sulfamethoxazole (TMP-SMX, 320 mg/1600 mg twice daily) was compared with placebo, and yielded a higher cure rate 7-14 days after antibiotic treatment (80.5 vs 73.6%).

They did not recommend administering antibiotics for otherwise healthy patients without complicating factors. Additional factors that favor antibiotic therapy include the presence of multiple lesions, extensive surrounding cellulitis, signs of systemic infection, associated comorbidities or immunosuppression, or inadequate clinical response to I and D alone. Those with an indwelling device or high risk for transmission of S. aureus to others also should receive antibiotic therapy.

HORMONE THERAPY AND SUBCLINICAL ATHEROSCLEROSIS[11]

The ELITE trial randomized healthy women (< 6 years or ≥ 10 years past menopause) without cardiovascular disease (CVD) to oral estradiol (1 mg daily) or placebo. Women with a uterus received vaginal progesterone or placebo gel. Carotid-artery intima-media thickness (CIMT) was assessed at baseline and every six months. Coronary artery atherosclerosis was evaluated at the study's completion using computed tomography (CT). An earlier study showed that baseline CIMT correlated well with CVD risk factors.

After a median of five years of study medications, the younger women (<6 years post menopause) who received estradiol had significantly less progression of CIMT than the placebo group (P=0.008), but in the older women (>10 years post menopause) the CIMT progression rates were similar in the hormonal therapy (HT) and placebo groups (P=0.29). The difference in HT effect between the two age groups as measured by CIMT was significant (P=0.007). Coronary artery CT parameters did not differ significantly between the placebo and the HT groups regardless of age.

Abundant data support the timing hypothesis, which proposes that HT slows atherosclerosis progression in recently menopausal women but has neutral or adverse effects in women who are at least a decade past onset of menopause. Editorialists concluded that although estrogen has a favorable effect on atherosclerosis in early menopause, recommending HT for prevention of cardiovascular events would be premature. However, patients who have been started on HT early after menopause for vasomotor symptoms, may

be reassured about the cardiovascular safety. Some have commented that CIMT has its own shortcomings as a marker for cardiovascular effects especially in women. Women are more likely than men to have non-obstructive CAD. Many more women than men (nearly 3 times) with suspected angina have negative catheterization results or lesions smaller than 50% of luminal diameter. Compared with men, angina in women is more often not associated with atherosclerosis.[12]

In a related article, the Endocrine Society issued a new scientific statement advising clinicians to avoid using custom-compounded hormones to treat menopausal symptoms, female sexual dysfunction, and thyroid disorders.[13] Custom-compounded hormones should be reserved for situations in which a patient is allergic to or does not tolerate any of the FDA approved therapies, but yet treatment is necessary for her health. As many as one third of all menopausal therapy prescriptions appear to be for custom-compounded products, garnering about $1 billion in annual sales. Some of these products are potentially dangerous because of added excipients that can affect absorption, and because those or other added ingredients could be contaminated or adulterated.

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