

# CHOOSING WISELY V AND OTHER TOP TIPS

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This is my fifth article in this *Journal* on “Choosing Wisely” from the Board of Internal Medicine Foundation.<sup>14</sup> Each specialty group has either developed a list of at least “Five Things Physicians and Patients Should Question,” or will do so. The Choosing Wisely lists covered in this article are from The American Academy of Hospice and Palliative Medicine, The American Academy of Pediatrics, and The American Academy of Otolaryngology-Head and Neck Surgery Foundation. I thought it was appropriate to start with the five items from The American Academy of Hospice and Palliative Medicine since I included an article on “How Doctors Die” in my “Top Tips” in the last issue of the *Journal*. (My choices of “Top Tips” for this issue are included after the Choosing Wisely items.)

## RECOMMENDATIONS OF THE AMERICAN ACADEMY OF HOSPICE AND PALLIATIVE MEDICINE

1. Don’t recommend percutaneous feeding tubes in patients with advanced dementia; instead, offer oral assisted feeding. Feeding tubes do not result in improved survival, prevention of aspiration pneumonia, or improved healing of pressure ulcers. Feeding tubes have actually been associated with development of pressure ulcers, use of physical and pharmacological restraints, and patient distress about the tube itself. Assistance with oral feeding is an evidence-based approach providing nutrition for patients with advanced dementia and feeding problems. This practice focuses on comfort and human interaction more than on nutritional goals.<sup>5</sup>

2. 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. Many 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.

3. Don’t leave an implantable cardioverter-defibrillator (ICD) activated when it is inconsistent with the patient/family goals of care. Studies have shown that in about a quarter of patients with ICDs, the defibrillator fires

within weeks preceding death. This rarely prevents death for those with advanced irreversible diseases and it may be painful to patients and distressing to family members. Fewer than 10% of hospices have official policies concerning a formal practice to address deactivation. Advance care planning discussion should include the option of deactivating the ICD when it no longer supports the patient’s goals.

4. Don’t recommend more than a single-fraction of palliative radiation for an uncomplicated painful bone metastasis. The American Society for Radiation Oncology (ASTRO) 2011 guideline states that a single-fraction radiation to a previously un-irradiated peripheral bone or vertebral metastasis provides comparable pain relief and morbidity compared to multiple-fraction regimens while optimizing patient and caregiver convenience. Although this does result in a higher incidence of later need for retreatment (20% vs 8% for multi-fraction regimens), the decreased patient burden usually outweighs any considerations for long-term effectiveness for those with a limited life expectancy.

5. Don’t use topical lorazepam (Ativan®), diphenhydramine (Benadryl®), or haloperidol (Haldol®) (“ABH”) gel for nausea. Anti-nausea gels have not been proven effective in any large, well-designed or placebo-controlled trials. The active ingredients of ABH are not absorbed to systemic levels that could be effective. Only diphenhydramine is absorbed via the skin, and then only after several hours and erratically at subtherapeutic levels. (It also can cause skin sensitization.) It is therefore not appropriate for “as needed” use.

## RECOMMENDATIONS OF THE AMERICAN ACADEMY OF PEDIATRICS

1. Antibiotics should not be used for apparent viral respiratory illnesses (sinusitis, pharyngitis, bronchitis). Antibiotic prescription rates for children still remain alarmingly high for these illnesses, which can lead to antibiotic resistance, higher healthcare costs, and greater risk of adverse events.

2. Cold and cough medicine should not be prescribed or recommended for respiratory illnesses in

children under 4 years of age. These can have potentially serious side effects as well as increase the cost of care. Accidental overdose can occur, especially if combined with another product, as many cough and cold products for children have more than one ingredient.

3. Computed Tomography (CT) scans are not necessary in the immediate evaluation of minor head injuries; clinical observation and the criteria of the Pediatric Emergency Care Applied Research Network (PECARN) should be used to determine whether imaging is indicated. It's appropriate that this recommendation (as well as the next two) concern CT scans because of their frequent use, radiation exposure, and cost.

Approximately 50% of children who visit hospital emergency departments with a head injury receive a CT scan, most of which are unnecessary. A child's brain tissue is more sensitive to ionizing radiation, which increases their lifetime risk of cancer. Clinical observation prior to making a decision about the need for a CT in children is an effective approach.

4. Neuroimaging (CT, MRI) is not necessary in a child with a simple febrile seizure. As noted above, CT scanning is associated with radiation exposure and future cancer risk. The MRI is also associated with risks from the necessary sedation and the high cost. Medical literature does not support the use of skull films in a child with a febrile seizure. Clinicians should direct their attention toward identifying the cause of the child's fever.<sup>8</sup>

5. CT scans are not necessary in the routine evaluation of abdominal pain. Emergency Department use of CT imaging in children for the evaluation of abdominal pain is increasing even though excess exposure to radiation in childhood causes an increased lifetime risk of cancer. Alternatives should be considered, such as ultrasonography for appendicitis in children, which is preferable in many cases.

#### RECOMMENDATIONS OF THE AMERICAN ACADEMY OF OTOLARYNGOLOGY-HEAD AND NECK SURGERY FOUNDATION

1. Don't order a CT scan of the head/brain for sudden hearing loss. CT scanning may be appropriate in patients with focal neurological findings, a history of trauma, or chronic ear disease. (Note: sudden sensorineural hearing loss should be treated with steroids immediately.)

2. Don't prescribe oral antibiotics for uncomplicated acute otorrhea with tympanostomy tubes. Topically administered products provide coverage for the likely organisms, while oral antibiotics often do not provide adequate coverage for the causes of most episodes, can

have more significant adverse effects, and raise the risk of antibiotic resistance and opportunistic infections.<sup>9</sup>

3. Don't prescribe oral antibiotics for uncomplicated acute external otitis for the same reasons as above.

4. Don't routinely obtain radiographic imaging for patients who meet diagnostic criteria for uncomplicated acute rhinosinusitis. (This includes plain film radiography, CT or MRI.) Acute rhinosinusitis is defined as up to four weeks of purulent nasal drainage (anterior, posterior, or both) accompanied by nasal obstruction, facial pain-pressure-fullness, or both. Imaging might be appropriate in patients with a complication of acute rhinosinusitis, in patients with comorbidities that predispose them to complications, and in patients in whom an alternative diagnosis is suspected.

5. Don't obtain CT or an MRI in patients with a primary complaint of hoarseness without first examining the larynx with a mirror or a fiberoptic scope. Imaging is unnecessary in most patients and is both costly and has the potential for radiation exposure. After laryngoscopy, the use of imaging is supported to further evaluate either vocal cord paralysis or a mass or lesion of the larynx.<sup>10</sup>

#### TOP TIPS

##### BE WISE WHEN CHOOSING WISELY

Just to give another perspective on the Choosing Wisely initiative, Dr. Matthew Mintz presents a patient who is declining to go along with her physician's suggestion to change medications and is citing the Choosing Wisely item that she had read as the reason for her decision.

Dr. Mintz states that many of the major media outlets have sensationalized and oversimplified the Choosing Wisely program, portraying it as a new directive for doctors. He states that *The New York Times* described it as a list of don'ts. *The Washington Post's* headline read, "Group Releases List of 90 Medical 'Don'ts'." This is not what the experts recommended. For example, in regards to diabetes, The American Diabetes Association does an excellent job of providing guidance on an individualized approach to blood sugar control. It takes the patient's age into consideration, along with factors such as patient attitudes, resources, and co-morbidities. This is very different from a "never" interpretation of Choosing Wisely recommendations.

He goes on to say that our fee-for-service model creates incentives for clinicians to order testing and treatment, which is why healthcare spending is out of control. Choosing Wisely is an attempt by doctors' groups to determine the appropriate cuts themselves, rather than waiting for the government or insurance companies to mandate them. Also, it is an attempt to decrease potential

harms to patients from unnecessary tests.

Dr. Mintz wonders if today's guidelines will become tomorrow's prior authorizations or exclusions. Physicians may be giving payers a reason to deny coverage for the tests and procedures that are being discouraged. He also wonders why tort reform isn't part of the discussion, since clinicians frequently order tests just to cover all the bases and make sure they haven't missed something. Many physicians would gladly give up many of these overused tests and treatments but cling to their old practices out of fear of being sued. Clinicians must be aware that their patients may now consider a valuable recommendation "unwise" owing to their strict interpretation of the guidelines. Payers may capitalize on the guidelines to tighten their coverage limits. Nonetheless, in the end providers will still be held accountable for poor outcomes even if these guidelines have been followed.

With all this in mind, it is important to remind our non-physician readers that the Choosing Wisely items we discussed earlier are provided solely for informational purposes and are not intended as a substitute for consultation with a medical professional. Patients with any specific questions about the items discussed earlier and their individual situation should consult their physician.

#### PERIPROCEDURAL MANAGEMENT OF ANTITHROMBOTIC MEDICATIONS IN PATIENTS WITH ISCHEMIC CEREBROVASCULAR DISEASE SUMMARY OF EVIDENCE-BASED GUIDELINES<sup>12</sup>

This is a Report of the Guideline Development Subcommittee of The American Academy of Neurology. Since more and more patients are on antithrombotic medications around the time of procedures, clinicians must weigh the risk of hemorrhage from continuing the anticoagulant against the risk of thromboembolic complications if it is stopped. This subcommittee gives their recommendations with levels of evidence.

- Past stroke patients undergoing dental procedures should routinely continue aspirin (Level A).
- Past stroke patients undergoing invasive ocular anesthesia for cataract surgery, dermatologic procedures, transrectal ultrasound-guided prostate biopsy, spinal/epidural procedures and carpal tunnel surgery should probably continue aspirin (Level B).
- Some stroke patients undergoing vitreoretinal surgery, EMG, transbronchial lung biopsy, colonoscopic polypectomy, upper endoscopy and biopsy/sphincterotomy and abdominal ultrasound guided biopsies should possibly continue aspirin (Level C).
- Past stroke patients requiring warfarin

should routinely continue it when undergoing dental procedures (Level A) and probably continue it for dermatologic procedures (Level B).

- Some patients undergoing EMG, prostate procedures, inguinal herniorrhaphy and endothermal ablation of the great saphenous vein should possibly continue warfarin (Level C).

- Neurologists should counsel that warfarin probably does not increase clinically important bleeding with ocular anesthesia (Level B), and other ophthalmologic studies lack the statistical precision to make recommendations (Level U = unknown).

- Neurologists should counsel that warfarin might increase bleeding with colonoscopic polypectomy (Level C).

- There is insufficient evidence to support or refute periprocedural heparin bridging therapy to reduce thromboembolic events in chronic anticoagulated patients (Level U). Neurologists should counsel that bridging therapy is probably associated with increased bleeding risks compared with cessation of warfarin (Level B). The risk difference as compared with continuing warfarin is unknown (Level U).

There are a total of 16 recommendations that are outlined in this article that are short and easily read. At the end of the article there is an appendix with sample clinical scenarios that apply the guidelines.

#### GLUCOSAMINE LINKED TO INCREASED INTRAOCULAR PRESSURE<sup>13</sup>

In the past I have always told my patients who admit to me that they are taking glucosamine that I do not know of any potential side effects of taking it. After reading this article, it does cause one to pause giving glucosamine blanket approval, even though this is a very small study of only 17 patients. The investigators studied those who had a history of glucosamine supplementation and ocular hypertension (IOP > 21mm Hg) or a diagnosis of open-angle glaucoma, and found intraocular pressure increased after starting glucosamine supplementation (P=0.001). After discontinuation the intraocular pressure decreased. Though this small study shows a reversible effect of those changes, it does not eliminate the possibility that permanent damage can result from prolonged use of glucosamine.

Risk factors for primary open-angle glaucoma include high myopia (>6 diopters), family history of a first-degree relative with glaucoma, black race, and advanced age. An increased optic cup-to-disc ratio (CDR), increased cup-to-disc asymmetry between a patient's eyes, disc hemorrhage,

and increased intraocular pressure (IOP), increase the risk of glaucoma. No single or combined physical finding(s) effectively rule out glaucoma.

Though a large NIH study suggested that the majority of patients in the trial did not show much, if any, benefit from glucosamine for osteoarthritic pain, patients are often told that while studies give conflicting data as to whether glucosamine and chondroitin sulfate can reduce arthritic pain, there does not appear to be any risk in trying these supplements. 27 million people are thought to have osteoarthritis in the U.S., and more than 2 million have open-angle glaucoma, according to The Centers for Disease Control and Prevention. Among such large numbers of patients there may be a small subset who find glucosamine helpful enough for their arthritis that they might prefer to treat the intraocular pressure rather than give up the supplements. Other than the fact that the study was a very small sample and it was retrospective in design, it has limited generalizability because it consisted of patients who were at least glaucoma suspects. It did not take into account dosage, duration, brand, or compliance. Until further studies are done, people at risk for glaucoma should have their intraocular pressure more closely monitored during glucosamine supplementation. In the study it was felt that the intraocular response to the glucosamine was similar to what is seen with the use of steroids. There seems to be a higher risk group who must be identified to avoid harm.

#### WHAT DO AVERAGE AMERICANS KNOW ABOUT SCIENCE?<sup>14</sup>

According to the results of a 13-question survey by the Pew Research Center and the Smithsonian magazine, the American public's knowledge of basic science and technology varies widely. The results of this survey<sup>14</sup> piqued my curiosity probably because I have been a judge at science fairs for many years. Also, I think it brings to mind that many of our patients might not understand the scientific approach of modern medicine, and this could affect the results of our care for them.

Examples of the survey's results include the fact that about 78% of the public know red blood cells carry oxygen to the body, whereas 83% know that sunscreen protects the skin from harmful ultraviolet rays. (Of course, we must remind patients that they need protection both against ultraviolet-A and ultraviolet-B rays with sunscreen.)

Another 77% correctly answered that antibiotic-resistant bacteria are the main reasons that scientists are concerned about the overuse of antibiotics. That might be because super bugs like methicillin-resistant *Staphylococcus aureus* get a lot of attention in the news. Even though the controversial drilling technique known as fracking has been emerging as a hot-button environmental and political issue, only 51% of the public know that natural gas (not coal, diamonds, or silicone) is extracted in the process.

Most people seem to know that having a control group is the best way to test a new drug to treat disease; 78% said that they would give the drug to half of a group of volunteers with the disease, but not to the others, then compare how many in each group got better, rather than just giving the drug to all the volunteers.

There were generally big gaps (often 20-percentage-point differences) between those with a college degree and those who only had a high-school degree. Seventy-six percent of college graduates knew that carbon dioxide is the gas believed to cause atmospheric temperatures to climb, but only 55% of those with some college experience got the question right.

Generally the public doesn't consider the level of American students' science achievement to be very high compared with that of the rest of the developed world. 44% believe that 15-year-olds in the United States are lacking science knowledge compared with their peers in other countries. In reality, the teens have an average standing. College graduates seemed to be most pessimistic about younger generations, with 56% saying American students rank near the bottom.

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