A collection of interview-based articles on recent guidelines by leading experts.

Physician’s Weekly

News By Topic:
Guidelines Update

Read some of our top articles on the most recent guidelines for depression, stroke, Achilles tendon rupture, and more!

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A Message From the Editor

We at Physician's Weekly are excited to present you with an eBook dedicated to feature stories we've covered on clinical guidelines that have recently been released. Our publication has published a variety of news items pertaining to guidelines that focus on clinical and evidence-based research. The content in these articles relies on the expertise of our contributing physician authors. Physician's Weekly will continue to feature news about guidelines in the coming months, and we hope that you find this information useful in your practice. Please let us know your thoughts by contacting us at keithd@physweekly.com.

Sincerely,

Keith D’Oria
Managing Editor, Physician's Weekly
The impact of major depressive disorder (MDD) on patients and their families is substantial. MDD adversely affects the patient as well as others, with the most serious complication of a major depressive episode being suicide. The disorder has also been associated with significant medical comorbidity. It can complicate recovery from other medical illnesses. Furthermore, MDD affects patients’ marital, parental, social, and vocational functioning. The disorder is unremitting in about 15% of patients and recurrent in another 35%. Compounding the problem is that treatment is often delayed. These factors highlight the need for changes in the delivery of mental health services to enhance timeliness and quality of care in MDD. With treatment, however, the prognosis associated with MDD is generally good. Most patients will respond to acute treatment, and continuation and maintenance therapy with acutely active treatments has been shown to lower the risk and severity of relapses into depression.

The American Psychiatric Association has updated its practice guideline for the treatment of major depressive disorder and includes new recommendations on antidepressants, depression-focused psychotherapies, and somatic treatments.

A Guideline Update for Major Depressive Disorder

Alan J. Gelenberg, MD
Professor and Chair
Department of Psychiatry
Penn State University
Psychotherapies, and somatic treatments, such as use of antidepressant medications, depression-focused psychotherapies, and somatic treatments, such as electroconvulsive therapy,” says Alan J. Gelenberg, MD, who chaired the workgroup that developed the recommendations. “The guideline also addresses other topics, such as alternative and complementary treatments, treating depression during pregnancy, and strategies for treatment-resistant depression.”

It took approximately 5 years to update the APA guidelines, Dr. Gelenberg says. “The update involved intense review, discussion, and thoughtful revision-making.” We believe this update will enhance patient care, and we’re hopeful they’ll improve lives for many patients.” The workgroup consisted of APA members with extensive research and clinical expertise in the assessment and treatment of MDD. It reviewed over 13,000 articles that were published from 1999—when the search from the previous edition ended—to 2006. Draft versions of the guideline underwent extensive review by experts in psychiatry, allied physician organizations, patient advocacy groups, and members of the APA.

What’s New?
The 2010 guideline update includes new information on depression rating scales, strategies for treatment-resistant depression, recommendations on exercise and other healthy behaviors, and a strengthened recommendation on maintenance treatment. While this new information is a welcome addition, Dr. Gelenberg notes that formulating plans for enhancing medication adherence (Table 1) and for appropriate patient monitoring (Table 2) are still paramount to providing quality care. “It’s important that physicians make time to address the patient’s need for treatment and follow-up with them closely and frequently to optimize results,” he says.

Electroconvulsive therapy. “It’s important that physicians make time to address the patient’s need for treatment and follow-up with them closely and frequently to optimize results.”

---Alan J. Gelenberg, MD

References
Clinicians are urged to address primary prevention of both ischemic and hemorrhagic stroke because the risk factors and prevention strategies for these events largely overlap.

Updated Guidelines: Primary Stroke Prevention

Larry B. Goldstein, MD
Professor of Medicine Director Duke University Medical Center

In the February 1, 2011 issue of Stroke, the American Heart Association/American Stroke Association (AHA/ASA) released new guidelines for the primary prevention of stroke. The guideline reviews evidence on established and emerging risk factors for stroke. A significant change in these guidelines, which update a previous statement from 2006, is that prevention of both ischemic and hemorrhagic stroke is not recommended for patients with diabetes or diabetes plus asymptomatic peripheral artery disease. Use of aspirin to prevent cardiovascular events—including, but not limited to stroke—is recommended for those at sufficiently high risk. However, it’s important to weigh the risks, primarily bleeding, associated with treatment.

Aspirin Update

A notable point in the AHA/ASA scientific statement is that aspirin is not recommended for preventing a first stroke in people at low risk or in those with diabetes or diabetes plus asymptomatic peripheral artery disease. Use of aspirin to prevent cardiovascular events—including, but not limited to stroke—is recommended for those at sufficiently high risk. However, it’s important to weigh the risks, primarily bleeding, associated with treatment.

Managing Asymptomatic Carotid Artery Stenosis

Population screening for asymptomatic carotid artery stenosis is not recommended. An area that has become more complex is deciding whether to recommend revascularization for patients who have asymptomatic carotid stenosis. The usefulness of carotid artery stenting as an alternative to carotid endarterectomy in asymptomatic patients at high risk is uncertain.

There is also a paucity of data comparing carotid artery surgery versus stenting versus current medical therapy. As such, selection of asymptomatic patients for carotid revascularization should be based upon an assessment of comorbid conditions and life expectancy, as well as other individual factors. It should include a thorough evaluation of the risks and benefits of the procedure with an understanding of patient preferences.

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The Changing Paradigm in AF

Numerous modifications have been made to the recommendations on managing AF. Systematic pulse assessment during routine clinic visits is recommended for patients aged 65 and older. Warfarin is recommended for the prevention of stroke among those at high and moderate risk. Antiplatelet therapy (aspirin) is recommended for low-risk and some moderate-risk patients with AF. Dual antiplatelet therapy (aspirin and clopidogrel) may be reasonable for high-risk patients with AF who are unsuitable for anticoagulation. However, this carries a risk of bleeding similar to warfarin. Aggressive management of blood pressure coupled with antithrombotic prophylaxis in elderly patients with AF can be useful.

References


The American Heart Association/American Stroke Association (AHA/ASA) released updated guidelines to prevent subsequent stroke in survivors of ischemic strokes or transient ischemic attacks (TIAs). Specifically, the guidelines—which were published in the January 2011 issue of *Stroke*—include new recommendations for treating metabolic syndrome, stenting of the carotid artery, and atrial fibrillation, among other updates. The update revised previous recommendations from 2006 and reflected new evidence from recent investigations and analyses pertaining to secondary stroke prevention. This guideline is one of five “flagship” evidence-based statements from the AHA/ASA, which are reviewed every 3 years. They are designed to assist clinicians in making important treatment decisions after stroke or TIA.

**Metabolic Syndrome & Stenting Updates**

Among the new recommendations made in the section on metabolic syndrome is that clinicians are now advised to treat individual components that are also stroke risk factors, particularly dyslipidemia and hypertension, in order to prevent a second stroke or TIA in individuals with metabolic syndrome. All patients with carotid artery stenosis and a TIA or stroke should receive optimal medical therapy, including antiplatelet therapy and statins, as well as risk factor modifications. Another important note is that the utility of screening patients for metabolic syndrome after stroke is unknown, so more research is necessary in this component of stroke management.

The section on carotid artery stenting (CAS) for extracranial symptomatic carotid disease was also updated because of recent large clinical trials. CAS can be used as an alternative to surgery for symptomatic patients at average or low risk for complications when the diameter of the lumen of the internal carotid artery is reduced by greater than 70% based on noninvasive imaging or by more than 50% as seen with catheter angiography. For certain patients with symptomatic high-grade carotid stenosis and factors that make carotid endarterectomy more difficult, CAS is now considered a reasonable alternative. It’s also reasonable to perform CAS when operators have established perioperative morbidity and mortality rates of 4% to 6%.

The current data are stronger for the use of carotid artery endarterectomy (CAE) when treating carotid artery stenosis. CAE is now recommended for patients with symptomatic severe stenosis (more than 70%) and moderate stenosis (50% to 99%) if the periprocedural morbidity and mortality risk is estimated at less than 6%. Neither CAE or CAS, however, is recommended when stenosis is less than 50%.

**Atrial Fibrillation Updates**

For stroke survivors who have atrial fibrillation (AF) but are unable to take oral anticoagulants, aspirin monotherapy is recommended. Temporary interruption of oral anticoagulation is problematic for patients with AF at high risk of recurrent stroke. But if necessary, minimizing interruption time and bridging therapy with a low-molecular-weight heparin is recommended. The guidelines also provide other recommendations for patients with intermittent or permanent AF and special populations. AF is an area of ongoing research and drug development, so it’s likely that this section of the guidelines will be updated in the near future.

**References**

When an Achilles tendon ruptures, the forces placed on the tendon exceed its tensile limits. Patients who sustain these injuries often experience sudden pain in the affected leg, difficulty with weight-bearing, and weakness of the affected ankle. “The Achilles tendon is one of the strongest tendons in the body, and a rupture can be quite disabling,” explains Christopher P. Chiodo, MD. “The healing period after a rupture requires time away from work and limits athletic activity. Time away from work may have a financial impact on patients, and limiting activity may affect patients’ overall health and well-being.”

Achilles tendon rupture is more common in men who are in their 30s and 40s, but more people are staying active as they age, meaning that these injuries can occur in older age groups. An acute Achilles tendon rupture affects 5.5 to 9.9 of every 100,000 people in North America each year. There are currently no treatment regimens that are universally agreed upon. The aims of treatment include ascertaining a timely
and accurate diagnosis, achieving pain relief, restoring functional status, and returning to pre-rupture activities. “Once a timely and accurate diagnosis is made, clinicians and patients must discuss both conservative strategies (eg, casts or braces) and surgical treatment,” Dr. Chiido says.

New Evidence-Based Guidelines

The American Academy of Orthopaedic Surgeons (AAOS) has released an evidence-based clinical practice guideline on the diagnosis and treatment of acute Achilles tendon rupture. Available on AAOS’s website (www.aaos.org), the goal of the guidelines is to provide assistance to providers who are qualified to treat Achilles tendon ruptures. “These recommendations give guidance on how to select treatment options for these patients in order to optimize outcomes,” says Dr. Chiido, who chaired the work group that was responsible for the guidelines.

To develop the clinical practice guidelines, the AAOS work group formulated a set of preliminary recommendations that specified what should be done in whom, when, where, and how often or for how long. The group assembled and categorized relevant published articles by level of evidence to develop final recommendations with one of the following grades:

- **Strong** (good quality evidence).
- **Moderate** (fair quality evidence).
- **Weak** (poor quality evidence).
- **Inconclusive** (insufficient or conflicting evidence).

Table: Summarizing Recommendations

<table>
<thead>
<tr>
<th>Consensus Recommendations (Good Quality Evidence)</th>
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<tbody>
<tr>
<td>• A detailed history and physical exam should be performed.</td>
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<tr>
<td>• The physical examination should include two or more of the following tests to establish the diagnosis of acute Achilles tendon rupture:</td>
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<tr>
<td>- Clinical Thompson test (Sirensen squeeze test).</td>
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<td>- Decreased ankle plantar flexion strength.</td>
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<tr>
<td>- Presence of a palpable gap (defect, loss of contour).</td>
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<td>- Increased passive ankle dorsiflexion with gentle manipulation.</td>
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<td>• Although operative treatment is an option, it should be approached more cautiously in patients:</td>
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<tr>
<td>- With diabetes and/or neuropathy.</td>
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<tr>
<td>- In immunocompromised states.</td>
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<tr>
<td>- Age 65 and older.</td>
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<td>- Who use tobacco.</td>
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<td>- With sedentary lifestyle.</td>
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<tr>
<td>- Who are obese (BMI &gt;30kg/m²).</td>
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<tr>
<td>- With peripheral vascular disease or local/systemic dermatologic disorders.</td>
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<tr>
<th>Moderate Recommendations (Fair Quality Evidence)</th>
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<tr>
<td>• Early (2-4 weeks) postoperative protected weight-bearing for patients with acute Achilles tendon rupture who have been treated operatively is suggested.</td>
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<td>• Use of a protective device that allows mobilization by 2-4 weeks postoperatively is suggested.</td>
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<tr>
<th>Weak Recommendations (Poor Quality Evidence)</th>
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<tr>
<td>• Nonoperative treatment is an option for all patients with acute Achilles tendon rupture.</td>
</tr>
<tr>
<td>• Operative treatment is an option in patients with acute Achilles tendon rupture.</td>
</tr>
<tr>
<td>• Open, limited-open, and percutaneous techniques are options for treating patients with acute Achilles tendon rupture.</td>
</tr>
<tr>
<td>In patients who participate in sports, it is an option to return them to sports within 3-6 months after operative treatment for acute Achilles tendon rupture.</td>
</tr>
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In the absence of reliable evidence, the work group made consensus recommendations, which were based on clinical opinion.

**Immobilization & Weight-Bearing Are Important**

The AAOS work group recommended both nonsurgical and surgical treatment as options for all patients with acute Achilles tendon ruptures (Table). “Published data demonstrate that the ankle should be mobilized, and some weight-bearing should be allowed postoperatively in surgically-managed patients,” says Dr. Chiido. “Controlled early motion and weight-bearing activities appear to be beneficial, especially with regard to return of function. Within the first 2 weeks after surgery, protected weight-bearing should be initiated. Early mobilization by 2 to 4 weeks after surgery may also enhance recovery.”

A consensus recommendation was made by the AAOS work group on the need for a detailed history and physical examination to establish the diagnosis of an acute Achilles tendon rupture. The work group also recommended that surgical treatment be approached more cautiously in patients who are elderly, have sedentary lifestyles or are obese, are immunocompromised, use tobacco, and those with diabetes, neuropathy, and vascular disorders. No evidence supported the use of biological agents, autograft, or synthetic tissue when surgically repairing Achilles tendon ruptures, but more research is necessary.

**Looking Forward**

There are few high-quality studies that provide strong evidence for various aspects of the diagnosis and treatment of Achilles tendon rupture. The AAOS work group identified the following areas as focal points for future trials:

- Routine use of MRI, ultrasonography, and/or radiography to confirm a diagnosis.
- Preoperative immobilization or restricted weight bearing.
- Allograft, autograft, xenograft, synthetic tissue, or biologic adjuncts.
- Antithrombotic treatment.
- Physiotherapy.

“There is a need for larger studies which utilize multicenter protocols and databases,” adds Dr. Chiido. “For example, some studies have shown possible advantages to minimally invasive repair, specifically with regard to wound healing, but this needs to be validated with more research. More data are also needed on functional outcomes with non-operative management, such as braces or casts. We also need to establish patient registries that include large case volumes so that these patients can be followed and sufficiently evaluated for long-term outcomes. Decision-making doesn’t end at the time of surgery, and establishing appropriate postoperative protocols is important.”

Christopher P. Chiido, MD, has indicated to Physician’s Weekly that he has or has had no financial interests to report.

**References**


According to data from the CDC, more than 51 million Americans have been diagnosed with some form of arthritis, and the estimated annual cost for medical care of arthritis and joint pain was $281.5 billion in 2004. Arthritis of the glenohumeral joint can be the result of primary osteoarthritis, posttraumatic deformity, inflammatory arthritis, sepsis, or avascular necrosis. Epidemiological data suggest that the incidence of glenohumeral joint osteoarthritis is more common in women and appears to increase with age. The risk of shoulder arthritis is increased by a history of injury or surgery to the shoulder.

"Patients diagnosed with osteoarthritis of the shoulder experience pain, progressive loss of function, and diminished quality of life," says Rolando Izquierdo, MD. "Shoulder replacement surgery has become the third most common joint surgery, following hip and knee replacements, due to the increasing burden of glenohumeral joint osteoarthritis. Most treatments for glenohumeral joint osteoarthritis are associated with some known risks, especially invasive and..."
Evidence-Based Guidelines

The American Academy of Orthopaedic Surgeons (AAOS) recently released an evidence-based clinical practice guideline on the treatment of glenohumeral joint osteoarthritis in adults aged 19 and older. The guideline provides information on patient management after the diagnosis of osteoarthritis of the glenohumeral joint. The final treatment guidelines contain 16 recommendations and include both operative and non-operative treatment options (Table). “The purpose of this clinical practice guideline is to help improve treatments based on the current best evidence,” explains Dr. Izquierdo, who chaired the work group that developed the guidelines. “We conducted a systematic review of the available literature to establish recommendations based on good, sound evidence.”

Key Recommendations

Few high-quality prospective studies for treating shoulder osteoarthritis are currently available, so surgeons have few measures to support non-operative therapies. Shoulder replacement surgery has been routinely performed since the 1970s for patients with advanced glenohumeral joint osteoarthritis. According to the AAOS work group’s review of the literature, use of both total and partial shoulder replacement for this population is supported. “However, research shows that pain relief and motion improve with total joint replacement more than with partial replacement surgery,” says Dr. Izquierdo. “Studies indicate that the failure rate for partial replacements is about 14%. In these cases, revision surgery with total replacement is required later due to progressive arthritis and pain.”

Another key recommendation, Dr. Izquierdo says, is that surgeons should routinely take preventive steps to reduce the risk of potentially catastrophic complications caused by blood clots during and immediately following surgery. “Administration of prophylactic agents for venous thromboembolism and having patients perform exercises to increase blood flow may help patients avoid blood clots,” he says. “The AAOS work group reached consensus with this recommendation, believing that the risk of not taking these actions outweighs the risk of taking them.” The AAOS work group also reported that the quality of literature on drug therapy, injectable steroids, or arthroscopy after treatment for glenohumeral joint osteoarthritis is lacking, leading to no recommendations for or against the use of these options. In addition, no current studies support the use of physical therapy for treating shoulder osteoarthritis preoperatively or postoperatively.

Dr. Izquierdo noted that viscosupplementation—a synthetic lubricant for joints—was shown to have a statistically significant benefit in pain relief, range of motion, and quality of life in patients with shoulder osteoarthritis. “These findings, while encouraging, were based on one industry-supported study,” he says. “The FDA has only approved use of viscosupplementation for treating knees. The hope is that more data will emerge in the near future to encourage the FDA to approve an indication for viscosupplementation in patients specifically with glenohumeral joint osteoarthritis.”

Experience Matters

According to the literature, most surgeons replace far fewer shoulders than hips or knees. It is estimated that 75% of all shoulder replacements are performed by nonspecialists who may do two or fewer shoulder replacements each year, and complications occur more frequently among nonspecialist surgeons. “To improve immediate postoperative complication rates, the AAOS recommends that shoulder replacement be performed only by experienced surgeons who perform more than two shoulder replacements each year,” says Dr. Izquierdo. “Another important point to consider is that physicians who are only comfortable performing partial replacement surgery—instead of total replacement—should consider referring patients to a specialist who treats glenohumeral joint osteoarthritis and is trained and comfortable with total replacement procedures. The hope is that future research will help us establish more definitively on the appropriate surgical volume of partial and total replacements to enhance outcomes.”

Rolando Izquierdo, MD, has indicated to Physician’s Weekly that he has worked as a consultant for Zimmer and has been a paid speaker for Smith & Nephew.

References


Intracerebral hemorrhage (ICH) has long been recognized as one of the most severe forms of stroke. According to the American Heart Association (AHA), ICH accounts for less than 10% of first-ever strokes, but is more likely to result in death or major disability. Studies have estimated that 35% to 52% of patients with ICH die within a month. More than 60,000 patients in the United States have an ICH in a year, but only about 20% of these individuals are expected to be functionally independent 6 months after their event.

The AHA and American Stroke Association (ASA) published an updated evidenced-based guideline in the September 2010 issue of Stroke to inform physicians on the most current and comprehensive recommendations for the diagnosis and treatment of acute spontaneous ICH. The guideline covers diagnosis, hemostasis, blood pressure management, inpatient and nursing management, prevention of medical comorbidities, surgical treatment, prognosis, rehabilitation, prevention of recurrence, and other considerations. The authors incorporated new clinical trial results and multiple updates since the last guidelines were published in 2007 (Table).

“The underlying message of the AHA/ASA guideline update is that ICH is a very treatable disorder, and the overall aggressiveness of ICH care is directly related to mortality from this disease,” says Lewis B. Morgenstern, MD, FAHA, FAAN, who chaired the committee that created the guideline update. “As a medical community, we tend to be too nihilistic in our treatment of ICH. Even though there is currently no ‘magic bullet’ to treat the disease, the nihilism has led to poor outcomes. Aggressive, critical care by physicians to treat patients presenting with ICH is likely to improve outcomes.”
Reviewing the Recommendations

The AHA/ASA guideline committee established both new and revised recommendations for ICH. The committee recommended that initial assessment of ICH include prompt neuroimaging with CT or MRI. CT angiography and contrast-enhanced CT may help identify patients at particularly high risk of hematoma expansion. "Advanced imaging may also help detect underlying causes of ICH, such as vascular malformations," adds Dr. Morgenstern.

Within the first few days after ICH onset, patients are typically medically and neurologically unstable. The AHA/ASA writing committee recommends frequent vital sign checks, neurological assessments, and continuous cardiopulmonary monitoring for the inpatient management and prevention of secondary brain injury. Additionally, patients receiving IV vasoactive medications should receive continuous intra-arterial blood pressure monitoring. New and revised recommendations also state that glucose be monitored and normoglycemia maintained. Clinical seizures and patients with depressed mental status who are also found to have seizures on electroencephalograms should be treated with antiepileptic drugs. Prophylactic anticoagulants are not recommended.

For most patients with ICH, the usefulness of surgery is uncertain, and further research is required. However, there is a new statement in the guideline addressing patients with cerebellar hemorrhage who are deteriorating neurologically or who have brainstem compression and/or hydrocephalus from ventricular obstruction. "Previously, some believed such patients were best treated with intraventricular drainage rather than surgery," says Dr. Morgenstern. "However, a higher level recommendation now proposes that those patients be treated with surgery as soon as possible. Initial treatment of these patients with ventricular drainage alone rather than surgical evacuation is not recommended."

When Not to Make DNR Orders

Another important modification has been the upgrading of a recommendation on withdrawal of care. According to the guideline, most patients that die from ICH do so during the initial acute hospitalization—usually in the setting of withdrawal of support due to a presumed poor prognosis. Several studies have identified withdrawal of medical support and other early care limitations, such as do not resuscitate (DNR) orders within the first day of hospitalization, as independent outcome predictors. The guideline now conclusively states that a trial of aggressive therapy should be considered before a DNR decision is made. "There is concern that decisions by physicians to limit care early after ICH and give a DNR order are resulting in self-fulfilling prophecies of poor outcomes because they are inaccurately presuming poor results," Dr. Morgenstern says. "These decisions often lead to clinicians failing to provide initial aggressive therapy in patients with ICH who still may have favorable outcomes."

Dr. Morgenstern notes that physicians should be cautious when trying to establish a prognosis early after ICH, especially when withdrawal of support and DNR orders are under consideration. Aggressive guideline-concordant therapy is recommended for all ICH patients who do not have pre-existing DNR orders. Additionally, care limitations should not be recommended by physicians during the first few days after ICH. "Our ability to prognosticate about ICH is very limited," says Dr. Morgenstern. "Physicians need to take the lead and use evidence-based strategies to improve outcomes with aggressive care in patients with ICH. That’s the key to improving outcomes in this potentially deadly disease."

Lewis B. Morgenstern, MD, FAHA, FAAN, has indicated to Physician’s Weekly that he has the following financial disclosures: National Institutes of Health (NIH) Consultant—Safety and Tolerability of Deferoxamine in Acute Cerebral Hemorrhage (generic study drug); National Institute of Neurological Disorders and Stroke Co-I (Deferoxamine therapy for intracerebral hemorrhage—animal translational grant examining generic deferoxamine in ICH); and NIH PS—Brain Attack Surveillance in Corpus Christi (observational study of stroke in a biethnic community). He is also a medical adjudication board member for Wyeth.

References


