

Five Things Physicians and Patients Should Question

1

Don't perform neuroimaging studies in patients with stable headaches that meet criteria for migraine.

Numerous evidence-based guidelines agree that the risk of intracranial disease is not elevated in migraine. However, not all severe headaches are migraine. To avoid missing patients with more serious headaches, a migraine diagnosis should be made after a careful clinical history and an examination that documents the absence of any neurologic findings such as papilledema. Diagnostic criteria for migraine are contained in the International Classification of Headache Disorders.

2

Don't perform computed tomography (CT) imaging for headache when magnetic resonance imaging (MRI) is available, except in emergency settings.

When neuroimaging for headache is indicated, MRI is preferred over CT, except in emergency settings when hemorrhage, acute stroke or head trauma are suspected. MRI is more sensitive than CT for the detection of neoplasm, vascular disease, posterior fossa and cervicomedullary lesions and high and low intracranial pressure disorders. CT of the head is associated with substantial radiation exposure which may elevate the risk of later cancers, while there are no known biologic risks from MRI.

3

Don't recommend surgical deactivation of migraine trigger points outside of a clinical trial.

The value of this form of "migraine surgery" is still a research question. Observational studies and a small controlled trial suggest possible benefit. However, large multicenter, randomized controlled trials with long-term follow-up are needed to provide accurate estimates of the effectiveness and harms of surgery. Long-term side effects are unknown but potentially a concern.

4

Don't prescribe opioid or butalbital-containing medications as first-line treatment for recurrent headache disorders.

These medications impair alertness and may produce dependence or addiction syndromes, an undesirable risk for the young, otherwise healthy people most likely to have recurrent headaches. They increase the risk that episodic headache disorders such as migraine will become chronic, and may produce heightened sensitivity to pain. Use may be appropriate when other treatments fail or are contraindicated. Such patients should be monitored for the development of chronic headache.

5

Don't recommend prolonged or frequent use of over-the-counter (OTC) pain medications for headache.

OTC medications are appropriate treatment for occasional headaches if they work reliably without intolerable side effects. Frequent use (especially of caffeine-containing medications) can lead to an increase in headaches, known as medication overuse headache (MOH). To avoid this, OTC medication should be limited to no more than two days per week. In addition to MOH, prolonged overuse of acetaminophen can cause liver damage, while overuse of nonsteroidal anti-inflammatory drugs can lead to gastrointestinal bleeding.

How This List Was Created

The American Headache Society (AHS) Board of Directors approved the creation of a task force to lead work on the *Choosing Wisely*[®] campaign. The task force consisted of: Elizabeth Loder, MD, MPH, (AHS President), Stephen Silberstein, MD, (Chair of the AHS Guidelines and Position Paper Committee), Randolph Evans, MD, Benjamin Frishberg, MD, Scott Litin, MD, Donald Dworek, MD, Josif Stakic, MD, and Jessica Ailani, MD.

The list was developed in consultation with AHS members, who received an electronic survey informing them of the project and asking them to recommend items to be considered for the list. The task force reviewed a list of 11 candidate topics that had been developed from the over 100 suggestions received from AHS members.

The task force met twice by conference call to review the suggestions and choose items for further development, and then communicated electronically during the development and approval process. Final items were selected based on commonly encountered situations in headache medicine associated with poor patient outcomes, low-value care or misuse or overuse of resources. The five recommendations were then approved by the AHS Executive Committee and Board of Directors.

The AHS disclosure and conflict of interest policy can be found at: www.americanheadachesociety.org/professional_resources/disclosure_policy.

Sources

- Frishberg BM. The utility of neuroimaging in the evaluation of headache in patients with normal neurologic examination. *Neurology*. 1994 Jul;44(7):1191–7.
Silberstein SD. Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2000 Sep 26;55(6):754–62.
Neuroimaging for the evaluation of chronic headaches: an Evidence-based analysis. *Ont Health Technol Assess Ser*. 2010;10(26):1–57.
Headache Classification Subcommittee of the International Headache Society. International classification of headache disorders. *Cephalalgia*. 2004 Sep 1;4(1):1–151.
- Neuroimaging for the evaluation of chronic headaches: an evidence-based analysis. *Ont Health Technol Assess Ser*. 2010;10(26):1–57.
Evans R. Diagnostic testing for migraine and other primary headaches. *Neurol Clin*. 2009 May;27(2):393–414.
Semelka RC, Armao DM, Elias J Jr, Huda W. Imaging strategies to reduce the risk of radiation in CT studies, including selective substitution with MRI. *J Magn Reson Imaging*. 2007;25(5):900–09.
Brenner DJ, Hall EJ. Computed tomography—an increasing source of radiation exposure. *N Engl J Med*. 2007;357(22):2277–84.
- Guyuron B, Kriegler JS, Davis J, Amini SB. Comprehensive surgical treatment of migraine headaches. *Plast Reconstr Surg*. 2005;115:1–9.
Guyuron B, Reed D, Kriegler JS, Davis J, Pashmini N, Amini S. A placebo-controlled surgical trial of the treatment of migraine headaches. *Plast Reconstr Surg*. 2009;124:461–8.
Guyuron B, Kriegler JS, Davis J, Amini SB. Five-year outcome of surgical treatment of migraine headaches. *Plast Reconstr Surg*. 2011;127:603–8.
American Headache Society urges caution in using any surgical intervention in migraine treatment. Position statement of the American Headache Society [Internet]. Mount Royal (NJ): American Headache Society; 2012 April 13 [cited 11 January 2013]. Available from: www.americanheadachesociety.org/american_headache_society_urges_caution_in_using_any_surgical_intervention_in_migraine_treatment.
- Bigal ME, Lipton RB. Excessive opioid use and the development of chronic migraine. *Pain*. 2009 Apr;142(3):179–82.
Bigal ME, Serrano D, Buse D, Scher AI, Stewart WF, Lipton RB. Migraine medications and evolution from episodic to chronic migraine: a longitudinal population-based study. *Headache*. 2008;48:1157–68.
Scher AI, Stewart WF, Ricci JA, Lipton RB. Factors associated with the onset and remission of chronic daily headache in a population-based study. *Pain*. 2003;106(1-2):81–9.
Katsarava Z, Schneeweiss S, Kurth T, Kroener U, Fritsche G, Eikermann A, Diener HC, Limmroth V. Incidence and predictors for chronicity of headache in patients with episodic migraine. *Neurology*. 2004 Mar;62(5):788–90.
- Bigal ME, Serrano D, Buse D, Scher A, Stewart WF, Lipton RB. Acute migraine medications and evolution from episodic to chronic migraine: a longitudinal population-based study. *Headache*. 2008 Sep;48(8):1157–68.
Bigal ME, Lipton RB. Excessive acute migraine medication use and migraine progression. *Neurology*. 2008 Nov 25;71(22):1821–8.
Zwart JA, Dyb G, Hagen K, Svebak S, Holmen J. Analgesic use: a predictor of chronic pain and medication overuse headache – the Head-HUNT Study. *Neurology*. 2003;61:160–4.
Silberstein SD. Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2000;55:754–62.

About the ABIM Foundation

The mission of the ABIM Foundation is to advance medical professionalism to improve the health care system. We achieve this by collaborating with physicians and physician leaders, medical trainees, health care delivery systems, payers, policymakers, consumer organizations and patients to foster a shared understanding of professionalism and how they can adopt the tenets of professionalism in practice.

To learn more about the ABIM Foundation, visit www.abimfoundation.org.



About the American Headache Society

The American Headache Society (AHS) is the professional organization for headache medicine physicians and other health care providers who are committed to improving the lives of people with headache and face pain. Migraine alone is the seventh highest specific cause of disability globally and the leading cause worldwide of neurological disability, according to the World Health Organization 2010 Burden of Disease Study. The AHS provides a forum for the exchange of ideas and information about causes and treatments of headache and related painful disorders. It also provides education and training to physicians, health professionals and the public about headache and encourages scientific research worldwide about the causes and treatment of headache and related problems.

For more information, visit www.americanheadachesociety.org.



For more information or to see other lists of Five Things Physicians and Patients Should Question, visit www.choosingwisely.org.