



Lost in Translation: Making Sense of Clinical Treatment Guidelines

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Disclosures: Charles Argoff

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- Off-label use of a drug and/or product will be addressed in this presentation. This information will be verbally disclosed both at the beginning of the presentation and at the time of drug/product discussion.



Lost in Translation: Making Sense of Clinical Treatment Guidelines

- Multiple clinical treatment guidelines have been published regarding headache and pain management
- However, many have questioned the benefit of such clinical guidelines for the treatment of individual patients
- This course will review key published treatment guidelines for migraine, interventional pain management, chronic opioid use, neuropathic pain, and chronic low back pain
- The faculty will review the relevant guidelines and discuss their strengths and critical weaknesses when using such guidelines to actually treat people

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Evidence Based Medicine

- Evidence-based medicine (EBM) has been defined as "the conscientious, explicit and judicious use of current best evidence in **making decisions about the care of individual patients**"
Sackett, D. Evidence-based Medicine - What it is and what it isn't. BMJ 1996; 312:71-72
- EBM: The judicious use of the best current available scientific research in making decisions about the care of patients. EBM is intended to **integrate clinical expertise** with the research evidence and patient value

<http://www.medterms.com/script/main/art.asp?articlekey=33300>

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Do Published Migraine Guidelines Improve Patient Outcomes?

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Learning Objectives

- Using published American Academy of Neurology guidelines for the treatment of certain headache conditions as an example of such guidelines upon attending this symposium, the participant will be able to:
 1. Identify pharmacologic therapies which have strong evidence for their use in the prevention of episodic migraine.
 2. Identify the notable limitations of such recommendations.

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Real Patients – Do Current Treatment Guidelines Help?

- 32 yo female experiencing 2 migraine headaches each week: known FH, worsens around the time of her menstrual cycle, has never been treated
- 18 yo male experiencing postconcussion syndrome and posttraumatic migraine presents to your office
- 28 yo female experiencing 15 headaches monthly, 10 clearly migraine, lasts more than 4 hours, experiencing for more than 3 consecutive months—no response to multiple prophylactic approaches
- 40 yo female experiencing chronic daily headache using OTC analgesics daily

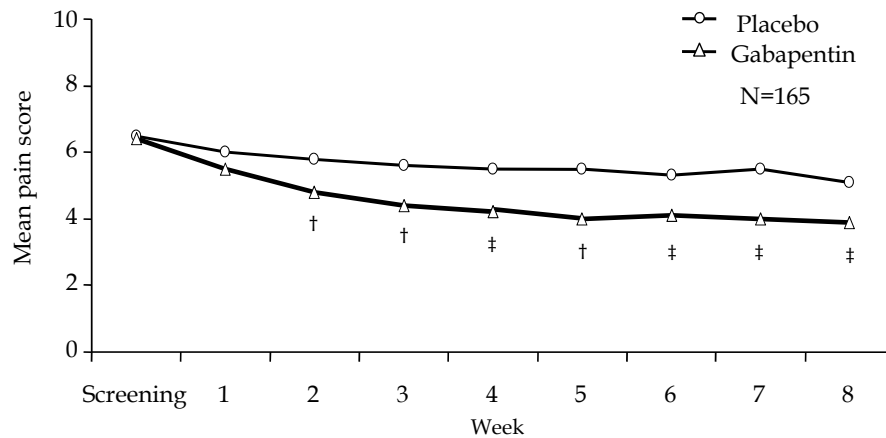
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"Discouraging Data on the Antidepressant"

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Gabapentin in the treatment of painful diabetic neuropathy*



*Not approved by FDA for this use

† $P < 0.01$; ‡ $P < 0.05$

Adapted from Backonja M, et al. *JAMA*. 1998;280(21):1831-1836.

Interventional Therapies for Chronic Pain

- Trigger point injections/botulinum toxin
- Epidural steroid injection
- Sacroiliac joint injection and RFA
- Facet joint injection and RFA
- Discography
- IDET, nucleoplasty, disc RFA
- Spinal cord stimulation
- Spinal drug delivery

RFA, radiofrequency ablation; IDET, intradiscal electrothermal therapy.

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How Good is the Evidence?



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EBM Must Be about EBP

Steps in the EBP Process:

- **ASSESS the patient:** Start with the patient—a clinical problem or question arises from the care of the patient
- **ASK the question:**
Construct a well built clinical question derived from the case
- **ACQUIRE the evidence:**
Select the appropriate resource(s) and conduct a search
- **APPRAISE the evidence:** Appraise that evidence for its validity (closeness to the truth) and applicability (usefulness in clinical practice)
- **APPLY:** talk with the patient, integrate that evidence with clinical expertise, patient preferences and apply it to practice
- **SELF-EVALUATION:** Evaluate your performance with this patient

[What is EBP? Introduction to Evidence-Based Practice
www.hsl.unc.edu/services/tutorials/ebm/whatis.htm](http://www.hsl.unc.edu/services/tutorials/ebm/whatis.htm)



AAN Guidelines: Pharmacologic treatment for episodic migraine in adults

- Authors analyzed published studies from June 1999 through May 2009 using a structured review process developed/published by the AAN
- Recommendations are divided into Level A, Level B, Level C, Level U



AAN Guidelines: Pharmacologic treatment for episodic migraine in adults (cont'd)

- Level A: established as effective and should be offered
- Level B: probably effective and should be considered
- Level C: possibly effective and may be considered
- Level U: evidence is conflicting or inadequate to support or refute the specific treatment

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AAN Guidelines: Pharmacologic treatment for episodic migraine in adults (cont'd)

- Level A (established as effective and should be offered for migraine prevention):
 1. Anticonvulsants: divalproex sodium, sodium valproate, topiramate
 2. B-blockers: metoprolol, propranolol, timolol
 3. Triptan: frovatriptan for short-term menstrual associated migraine prevention

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AAN Guidelines: Pharmacologic treatment for episodic migraine in adults (cont'd)

- Level B (probably effective and should be considered for migraine prevention):
 1. Antidepressants: amitriptyline, venlafaxine
 2. B-blockers: atenolol, nadolol
 3. Triptans: naratriptan, zolmitriptan for short-term menstrual associated migraine prevention

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AAN Guidelines: Pharmacologic treatment for episodic migraine in adults (cont'd)

- Level C (possibly effective and may be considered for migraine prevention):
 1. ACE inhibitors: lisinopril
 2. Angiotensin receptor blockers: candesartan
 3. A-agonists: clonidine, guanfacine
 4. Anticonvulsant: carbamazepine
 5. B-blockers: nebivolol, pindolol

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AAN Guidelines: Pharmacologic treatment for episodic migraine in adults (cont'd)

- Level U (evidence is conflicting or inadequate to support or refute the use of the medication for migraine prevention):
 1. Anticonvulsant: gabapentin
 2. Antidepressants: SSRI/SNRI, protriptyline
 3. Antithrombotics: acenocoumarol, warfarin, picotamide
 4. B-blocker: bisoprolol
 5. Calcium channel blockers: nifedipine, nimodipine, verapamil
 6. Acetazolamide
 7. Cyclandelate

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AAN Guidelines: Pharmacologic treatment for episodic migraine in adults (cont'd)

- Level A NEGATIVE (established as ineffective and should not be offered for migraine prevention): Anticonvulsant: lamotrigine
- Level B NEGATIVE (probably ineffective and should not be considered for migraine prevention): clomipramine
- Level C NEGATIVE (possibly ineffective and may not be considered for migraine prevention): acebutolol, clonazepam, nabumetone, oxcarbazepine, telmisartan

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AAN: NSAIDS and other complementary treatments for episodic migraine prevention in adults

- Level A (established as effective and should be offered for migraine prevention): Petasites (butterbur)
- Level B (probably effective and should be considered for migraine prevention): fenoprofen, ibuprofen, ketoprofen, naproxen, naproxen sodium, MIG-99 (feverfew), magnesium, riboflavin, subcutaneous histamine

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AAN: NSAIDS and other complementary treatments for episodic migraine prevention in adults (cont'd)

- Level C (possibly effective and may be considered for migraine prevention): cyproheptadine, Co-Q10, estrogen, mefenamic acid, flurbiprofen
- Level U (evidence is conflicting or inadequate to support or refute the use of the medication for migraine prevention): aspirin, indomethacin, omega-3, hyperbaric oxygen
- Level B NEGATIVE (probably ineffective for migraine prevention): montelukast

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AAN: Botulinum neurotoxin in the treatment of migraine

- “There is presently no consistent or strong evidence to permit drawing conclusions on the efficacy of BoNT in chronic daily headache (mainly transformed migraine) Level U
- In October 2010, approximately 2 years after that statement was published, the FDA approved onabotulinum toxin A for the treatment of chronic migraine!

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“Real” Clinical Considerations NOT Addressed

- No available evidence is sufficient to establish how to choose an optimal therapy for an individual person
- Evidence is NOT available to help the practitioner to choose one treatment over another
- Treatment must be individualized
- No evidence exists for making comparisons among multiple agents within the same class
- For all Level A recommended treatments a large percentage of patients FAILED to benefit

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Are the CDC Chronic Opioid Guidelines Improving Patient Outcomes?

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APS/AAPM Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain (2009)

- Patient selection and risk stratification
- Informed consent and opioid management plans
- Initiation and titration of COT
- Methadone
- Monitoring
- High-risk patients
- Dose escalations, high-dose opioid therapy, opioid rotation, indications for discontinuations of therapy

APS, American Pain Society; AAPM, American Academy Of Pain Medicine; COT, chronic opioid therapy
Chou R, et al. *J Pain*. 2009;10(2):113-130.

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APS/AAPM Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain (2009) (cont'd)

- Opioid-related adverse effects
- Use of psychotherapeutic cointerventions
- Driving and work safety
- Identifying a medical home and when to obtain consultation
- Breakthrough pain
- Opioids in pregnancy
- Opioid policies

APS, American Pain Society; AAPM, American Academy Of Pain Medicine
Chou R, et al. *J Pain*. 2009;10(2):113-130.

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CDC Guidelines-1

- Determining when to initiate or continue opioids for chronic pain outside end-of-life care
- Selection of opioid therapy, nonpharmacologic therapy, nonopioid pharmacologic therapy
- Establishment of treatment goals
- Discussion of risks and benefits of therapy with patients

<http://www.cdc.gov/drugoverdose/prescribing/guideline.html>- accessed 11/1/15



CDC Guidelines-2

- Opioid selection, dosage, duration, follow-up, and discontinuation
- Selection of extended-release and long-acting opioids
- Dosage considerations
- Duration of treatment for acute pain and chronic opioid use
- Considerations for follow-up and discontinuation of opioid therapy

<http://www.cdc.gov/drugoverdose/prescribing/guideline.html>- accessed 11/1/15



CDC Guidelines-3

- Assessing risk and addressing harms of opioid use
- Evaluation of risk factors for opioid-related harms and integration into the management plan
- Review of prescription drug monitoring program data
- Use of urine drug testing
- Considerations for concurrent use of opioids and benzodiazepines
- Arrangement of treatment for opioid use disorder

<http://www.cdc.gov/drugoverdose/prescribing/guideline.html>- accessed 11/1/15

