April 17, 2007

Dear Health Care Provider:

UW Health has launched a program to educate patients, families, and providers on the prevention and treatment of headache disorders. Our goals are to improve the health of our headache patients and reduce their need for emergency and urgent care services. The program is sponsored by a UW Ambulatory Innovation Grant and has been developed by the UW Pain Treatment and Research Center and UW Emergency Medicine.

Please accept the enclosed Headache Care Tool Kit with our compliments. The kit contains educational materials on headache care, plus tools you can use with your patients. Items include:

- The citywide Adult Migraine Assessment and Treatment Guideline, developed by an expert committee and recently revised. This document contains decision trees that outline a practical approach to outpatient and urgent care headache management. The MIDAS headache disability questionnaire is also included.
- The current International Headache Society diagnostic classification scheme for headache.
- A Headache Treatment Plan to use with your patients. This can be used to define treatment goals and techniques for your patients, and can be shared with other providers who see your patients. This form is available in bulk through Standard Register. The form can be scanned into WISCR-IT for electronic reference (document type HEADPAIN).
- A UW Pain and Headache Clinic consultation request form, for those patients whose headaches do not respond to the treatment suggestions in this kit. (More copies are available through Standard Register.)
- A headache care tool kit for patients, including educational Health Fact handouts and a Headache Diary that patients can complete to help you track their headaches. (The diary may be ordered in bulk through Standard Register, and the Health Facts are available through UConnect.)

We hope this information is helpful to you. Should you have any further questions or comments, please feel free to contact our project director, Dr. Nathan Rudin, at the UW Pain and Headache Clinics at (608) 263-9550, email nrudin@uwhealth.org

Sincerely yours,

UW Emergency Medicine
UW Pain Treatment and Research Center
UW Pain Patient Care Team

This initiative is funded in part by a UW Health Ambulatory Care Innovation Grant.
<table>
<thead>
<tr>
<th>Headache subtype</th>
<th>Frequency</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic migraine</td>
<td>≥15 days/month for &gt;3 months</td>
<td>Primary headache is migraine. May present with migraine or tension-type headache (TTH)-like features</td>
</tr>
<tr>
<td>Chronic tension-type headache (CTTH)</td>
<td>≥15 days/month for &gt;3 months</td>
<td>Primary headache is episodic TTH. Presents typically with TTH-like features</td>
</tr>
<tr>
<td>Medication overuse headache (MOH)</td>
<td>&gt;15 days/month</td>
<td>Chronic migraine, chronic TTH or mixed migraine and TTH-like features. Overuse (&gt;10 days/month for &gt;3 months) of ergots, triptans, opioids, combination headache medications or analgesics (&gt;15 days/month)</td>
</tr>
<tr>
<td>Primary stabbing headache</td>
<td>One to several times daily</td>
<td>Stabs of pain in the head each lasting a few seconds</td>
</tr>
<tr>
<td>Hyptic headache</td>
<td>&gt;15 days/month</td>
<td>Develops during sleep, awakens patient and lasts &gt;15 min after waking. Usually affects patients aged &gt;50 years</td>
</tr>
<tr>
<td>New daily persistent headache</td>
<td>Daily and unremitting from &lt;3 days from onset</td>
<td>Presents typically with TTH-like symptoms.</td>
</tr>
<tr>
<td>Cluster headache</td>
<td>One every 2 days to eight times per day</td>
<td>Severe unilateral, periorbital pain lasting 15–180 min. Ipsilateral conjunctival injection, lacrimation, nasal congestion, rhinorhoea, forehead and facial sweating, miosis, ptosis, eyelid oedema. Restlessness and agitation. Male predominance.</td>
</tr>
<tr>
<td>Chronic paroxysmal hemicrania</td>
<td>Several times daily for &gt;1 year</td>
<td>Duration 2–30 min. Symptoms similar to cluster headache. Female predominance. Responds to indomethacin.</td>
</tr>
<tr>
<td>SUNCT</td>
<td>3–200/day</td>
<td>Duration 5–240 s. Symptoms similar to cluster headache.</td>
</tr>
</tbody>
</table>

SUNCT: short-lasting unilateral neuralgiform headache attacks with conjunctival injection and tearing.

Guidelines are designed to assist clinicians by providing a framework for the evaluation and treatment of patients. This guideline outlines the preferred approach for most patients. It is not intended to replace a clinician's judgment or to establish a protocol for all patients. It is understood that some patients will not fit the clinical condition described in a guideline and that a guideline will rarely establish the only appropriate approach to a problem.

The purpose of treating migraine is to provide relief of symptoms, reduce patients' disability due to headache, reduce recurrence of headache, and to reduce patient reliance on Emergency Department/Immediate Care and non-scheduled visits for headache management.

*The scope of this guideline is the treatment of migraine in adults ≥ 18 years old. UW Hospital and Clinics has a separate guideline for pediatric migraine management.*

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Patient consulting for headache

Obtain headache and medical history; do general and neurological exam

Are alarms present?

No

Is the exam abnormal?

No

Are there unusual features as case evolves?

No

Establish diagnosis: Primary headache disorder

Migraine

Other primary headache disorder:
• Cluster
• Tension
• Chronic Daily Headache
• Medication Overuse Headache

Treat appropriately for type of headache

Yes

Yes

Yes

Exclude secondary headache using appropriate tests if indicated; consider referral

Reconsider secondary headache

Yes

No

*The scope of this guideline is the treatment of migraine in adults ≥ 18 years old. UWHC has a separate guideline for pediatric migraine management.*
Migraine (1a)

Evaluate degree of disability (need to lie down, e.g., or use MIDAS screen)

Develop migraine treatment and rescue plan

Arrange for follow-up monthly until improved

Headache controlled?

Continue therapy: Monitor for medication overuse (rebound headache)

Yes

No

Unusual features

Reevaluate:
- Inadequate relief of pain/other symptoms
- Continued disability
- Unacceptable side effects
- Adequate trial of therapy without success

Adequate trial of therapy without success

Symptoms unchanged;
- Continued or worsening disability;
- Original diagnosis in question;
- Comorbid conditions develop;
- Medication overuse headaches develop;
- Other difficulties in management

Consider referral to specialty clinic
1. Establish a Diagnosis

Look for evidence of meningeal irritation, papilledema, bruits or neurological signs, which suggest the need for further investigation.

At minimum evaluate:
- Vital signs, including temperature
- Cardiac exam
- Evidence of sinus etiology
- Scalp arteries
- Carotid arteries
- Cervical paraspinal muscles
- Cervical range of motion
- Neurological evaluation, including cranial nerves, cranial vasculature, mental status, reflexes, fundoscopic exam

Consider gender: migraine is three times more common in women than in men, while cluster headache is five to six times as common in men as in women.

1a. Migraine headache characteristics

The following list of characteristics is highly specific but not sensitive; the presence of migraineous features in the absence of tension criteria indicates diagnosis of migraine:

≥ 5 headache attacks, each attack lasting 4-72 hours if untreated
AND any 2 of the following:
- Unilateral
- Pulsatile
- Moderate to severe intensity (the most important differentiation from tension headache)
- Worse with exertion
AND at least one of the following:
- Nausea and/or vomiting
- Photo and phonophobia

1b. Tension headache characteristics

At least 2 of the following pain characteristics:
- Pressing (non-pulsating) quality
- Mild or moderate intensity (may inhibit, but does not prohibit activities)
- Bilateral location
- No aggravation by walking stairs or similar routine physical activity

None of the following:
- Nausea or vomiting
- Photophobia or phonophobia

Secondary headache types not suggested or confirmed

1c. Cluster headache characteristics

- Severe unilateral pain in the orbit or surrounding areas, or both, lasting 15-180 minutes untreated
- Headache is associated with at least one of the following signs on the side of the pain:
  - Conjunctival injection (reddenred eyeball)
  - Lacrimation (excessive tears from the eye)
  - Nasal congestion (stuffy nose)
  - Rhinorrhea (runny nose)
  - Facial sweating
  - Miosis (smaller pupil)
  - Ptosis (lowered upper eyelid)
  - Eyelid edema (lid becomes puffy)
- Frequency of attacks: from 1 every other day to 8 per day
- Secondary headache types neither suggested nor confirmed
- Restlessness; need to keep moving
1d. Medication overuse headache characteristics

**Note:** Medication overuse headache (MOH) may occur when analgesic/barbiturate, opioid or triptan is taken > 2 days week for > 3-4 weeks, or in some cases even when medication is taken as little as twice per week, especially with opioids, for more than 2 months. MOH can also occur with the overuse of NSAIDs, triptans and over-the-counter headache remedies such as Excedrin® and Anacin®. Treatment entails rapid analgesic withdrawal with 6-8 week washout period during which time aggressive prophylaxis can be initiated in order to retry abortive therapies. No improvement will occur unless the offending medication is discontinued for a minimum of several weeks; patients will not respond to preventive medication until a wash-out has taken place. D.H.E. and triptans are typically of little or no benefit in treating medication overuse headache. A single dose of opioid may be considered as a last resort.

Caution should be exercised when evaluating patients for treatment of medication overuse, with thought given to the frequency of emergent visits, the potential for disrupting an ongoing analgesic washout program, and the possibility of drug abuse or drug-seeking behavior.

- usually presents as chronic daily headache but also presents as migrainous exacerbation of chronic daily headache
- occurs in patients with frequent (>14 days/month) headache who take analgesics or abortive agents frequently
- occurs in 80% of patients with chronic migraines; MIDAS score >21 suggests medication overuse headache
- is less likely to respond to abortive agents than episodic migraine
- **Requires cessation of analgesic use (analgesic washout) to break cycle** (Appendix II)

1e. Chronic daily headache

- Headache frequency must be 15 days or more a month for 30 days, although more typically headache occurs almost every day
- There are 4 variants, including chronic (transformed) migraine, chronic tension-type headache, hemicrania continua and new persistent daily headache; however, 90% of patients with chronic daily headache have chronic migraine
- Most (80%) chronic migraine patients have medication overuse with analgesic rebound contributing to their headaches
- Many headaches are characterized by pressing/tightening quality, mild-moderate intensity, bilateral location, no aggravation by physical activity and absence of vomiting (thus chronic migraine has previously been called “mixed headache disorder”)

1f. Potentially ominous headache warning signs/symptoms that may indicate intracranial infection, bleed, mass, temporal arteritis

- Atypical headache; worst headache in patient’s life
- Fever, nuchal rigidity, marked increase in BP
- Neurological symptoms, especially if new onset
- Altered mental status
- Sudden onset of severe headache
- Cognitive/behavioral changes
- Abnormality in neuro exam
- New onset severe headache after age 40
- Headaches triggered by (not exacerbated by) exertion, cough, sexual activity, straining

2. Develop Treatment and Rescue Plan

If migraine is diagnosed, or intracranial catastrophe is ruled out, treat as if migraine:

- Ask patient about the degree of disability related to headaches, or administer Migraine Disability Assessment (MIDAS) questionnaire (Appendix I); note that the MIDAS questionnaire is of limited utility when the score is greater than 20.
- Select initial antiemetic, when necessary
- Select analgesic/abortive treatment based on disability or MIDAS score, prior response to treatment, and contraindications of medications
- Establish rescue plan (see # 6)

3. Goals of Therapy

- Complete relief of pain, optimally in two hours or less
- Rehydration if necessary
- Minimization of disability
- Avoidance of adverse drug effects
- Relief of vomiting and other associated symptoms
- Restoration of normal functioning
- Prevention of headache recurrence
- Treatment of comorbid conditions, including psychiatric issues
4. Outpatient Migraine Management – Non-Pharmacologic Treatment

Non-pharmacologic measures are not curative but should be used as a supplement to pharmacologic management. Medications should be used in conjunction with appropriate lifestyle, diet and trigger avoidance factors. Please note that biofeedback and relaxation techniques may or may not be covered by the patient’s insurance provider.

- Patients should maintain a headache diary, including treatments used, between visits (use a blank calendar) in order to identify triggering conditions and to monitor medication use (Sample diary in Appendix III)
- Patients should get adequate rest and eat meals regularly
- Patients should avoid their known triggers such as strong odors; certain foods (chocolate, cured meats, red wine) should be avoided
- Biofeedback and/or relaxation techniques are often very helpful in headache management

5. Outpatient Migraine Management – Pharmacologic Treatment

In disabling migraine, early intervention during the mild phase of the attack with triptans (within the first 20 minutes of mild pain) is associated with a higher likelihood of complete pain relief, a decrease in adverse effects, a diminished likelihood of headache recurrence (therefore is more cost effective) and a higher likelihood of early return to normal functioning.

5a. Antiemetics

<table>
<thead>
<tr>
<th>Severity</th>
<th>Antiemetic</th>
<th>Contraindications/Comments</th>
</tr>
</thead>
</table>
| Mild                            | Metoclopramide 5-10 mg PO Q4-6H | • Metoclopramide is contraindicated in patients with a history of seizures, pheochromocytoma, Parkinson’s disease, or in patients for whom stimulation of GI motility may be harmful, as in GI hemorrhage, obstruction or perforation
• Metoclopramide is the antiemetic of choice because it can facilitate the more rapid absorption of oral medications by decreasing gastric stasis |
| Moderate to Severe              | Chlorpromazine 25 mg PO Q6-8H | • Phenothiazines may cause hypotension and/or dystonias
• Phenothiazines are contraindicated in patients with Parkinson’s disease
• Metoclopramide may cause dystonias, especially in adolescents; metoclopramide is contraindicated in patients with a history of seizures, pheochromocytoma, or in patients for whom stimulation of GI motility may be harmful, as in GI hemorrhage, obstruction or perforation
• Dolasetron should be used with caution in patients at risk for QTc prolongation
• The total daily dose of ondansetron should not exceed 8 mg in patients with severe hepatic dysfunction
• Promethazine is contraindicated in patients with lower respiratory illnesses, including asthma; avoid use in patients with narrow angle glaucoma, symptomatic prostatic hypertrophy, stenosing peptic ulcer, bladder neck obstruction, pyloroduodenal obstruction, or bone marrow depression. |
|                                 | Prochlorperazine 5-10 mg PO Q6-8H or 25 mg PR Q12H |                                      |
|                                 | Metoclopramide 5-10 mg PO Q4-6H |                                      |
|                                 | Dolasetron 50 mg PO Q12H |                                      |
|                                 | Ondansetron 8 mg PO Q12H |                                      |
|                                 | Promethazine 25-50 mg PO or PR Q6H |                                      |
### 5b. Analgesic/Abortive Therapy Selections (Limit use to 2 days/week or less)

<table>
<thead>
<tr>
<th>Severity (Patient Report)</th>
<th>Analgesic: Select One</th>
<th>Contraindications/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mild to Moderate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Aspirin 650 mg PO Q4H</td>
<td>If NSAIDs or acetaminophen are contraindicated, try ergotamine or triptan first, then an analgesic/barbiturate or opioid</td>
</tr>
<tr>
<td></td>
<td>• Ibuprofen 800-1200 mg PO at onset, then 600-800 mg Q4-8H</td>
<td>Use treatments cautiously in patients with chronic daily headache</td>
</tr>
<tr>
<td></td>
<td>• Naproxen Sodium 550-1100mg at onset, then 220-550 mg pm after 1 hour, not to exceed 1500 mg/day</td>
<td>Aspirin inhibits platelet aggregation and prolongs bleeding time; it also may cause GI distress or GI bleeding</td>
</tr>
<tr>
<td></td>
<td>• Acetaminophen 650 mg PO or PR at onset, then Q4H, not to exceed 4000 mg/day</td>
<td>Caution in patients with history of hypersensitivity to any NSAID, history of GI ulcer or bleed, renal dysfunction, hypertension or any cardiac condition in which fluid retention is undesirable, history of coagulation defects or simultaneous use of warfarin</td>
</tr>
<tr>
<td></td>
<td>• Ketoprofen 50-100 mg PO Q 6-8H</td>
<td>Ketorolac should not be administered until dehydration is corrected; total duration of therapy should not exceed 5 days.</td>
</tr>
<tr>
<td></td>
<td>• Ketorolac 30 mg IV every 6 hours</td>
<td>Acetaminophen may be useful in patient unable to take NSAIDs</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Patients with a history of opioid use are less likely to respond to ketorolac.</td>
<td>Caution using acetaminophen in liver disease or in patients with protracted vomiting or poor oral intake for &gt;48 hours</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Moderate to Severe or previously failed on analgesics</strong></td>
<td>Serotonin receptor agonists (triptans)</td>
<td>Published studies of the efficacy of Midrin® (acetaminophen/isometheptene/dichlopheralphazone) have been poorly controlled and show inconsistent results; use only in patients who demonstrate good response</td>
</tr>
<tr>
<td></td>
<td>Treat initially with formulary-approved option; if ineffective try an alternative</td>
<td>Midrin® is contraindicated in patients taking MAOIs, in those with glaucoma and those with hepatic disease or severe renal or heart disease</td>
</tr>
<tr>
<td></td>
<td><strong>Fast-acting triptans:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sumatriptan 50-100 mg PO; may repeat after 2 hours if needed only if some benefit from first dose; not to exceed 200 mg/24H</td>
<td>Most abortive therapies are less effective as &quot;rescue&quot; treatment; triptans should be taken early in headache as efficacy in full-blown attacks is significantly reduced</td>
</tr>
<tr>
<td></td>
<td>• Sumatriptan 20 mg nasal spray; may repeat after 2 hours if needed only if some benefit from first dose; not to exceed 40 mg/24H</td>
<td>Rebound or tolerance may occur with frequent use (&gt; 2 days/week) of triptans</td>
</tr>
<tr>
<td></td>
<td>• Rizatriptan 10 mg* PO; available as ODT for use in patients with nausea or without access to liquids for swallowing; may repeat after 2 hours if needed only if some benefit from first dose; not to exceed 12 mg/24H</td>
<td>Limit triptan use to 4 cycles/30 days except in menstrually-associated migraine</td>
</tr>
<tr>
<td></td>
<td>• Naratriptan 2.5 mg PO; use the 2.5 mg dose in these patients</td>
<td>Patients who have failed treatment with analgesics in previous headache episodes should be encouraged to go straight to triptans for treatment when they feel another headache developing; they should be encouraged to use triptans early in the episode. Most patients who seek treatment for headaches are those who have not had good relief from NSAIDs</td>
</tr>
<tr>
<td></td>
<td>• Zolmitriptan† 2.5-5 mg PO; available as ODT for use in patients with nausea or without access to liquids for swallowing; may repeat after 2 hours if needed only if some benefit from first dose; not to exceed 10 mg/24H</td>
<td>Sumatriptan is the only injectable triptan -- an advantage when patients have vomiting with their headaches</td>
</tr>
<tr>
<td></td>
<td>• Zolmitriptan 5 mg nasal spray; may repeat after 2 hours; not to exceed 10 mg/24H</td>
<td>Sumatriptan 25 mg PO is less effective and more expensive than the 50 mg or 100 mg dose; 25 mg dose associated with lower probability of headache recurrence and higher probability of headache recurrence.</td>
</tr>
<tr>
<td></td>
<td>• Almotriptan 12.5-25 mg PO; may repeat after 2 hours if needed only if some benefit from first dose; not to exceed two tablets in 24 hours; not to exceed two doses in 24 hours</td>
<td>Most patients who do not respond to sumatriptan will respond to a different triptan</td>
</tr>
<tr>
<td></td>
<td>• Eletriptan‡ 40 mg PO; may repeat after 2 hours if needed only if some benefit from first dose; not to exceed 80 mg/24 hours</td>
<td>*Patients taking propranolol will have higher blood levels from a given dose of rizatriptan; use 5 mg/dose, not more than 15 mg/24H</td>
</tr>
<tr>
<td></td>
<td>• Slow-acting triptans:</td>
<td>†Patients taking oral contraceptives may have higher and prolonged peak plasma levels of zolmitriptan; use the 2.5 mg dose in these patients</td>
</tr>
<tr>
<td></td>
<td>• Naratriptan 2.5 mg PO (consider using in patients intolerant of other triptans or with prolonged attacks, especially if headache recurs with other triptans) may repeat after 4 hours, not to exceed 5 mg/24hours</td>
<td>Do not use a triptan within 24H of other triptan or an ergot derivative</td>
</tr>
<tr>
<td></td>
<td>• Frovatriptan 2.5 mg PO; may repeat after 2 hours if needed only if some benefit from first dose; not to exceed 7.5 mg/24H</td>
<td>All triptans are contraindicated in patients with: history of ischemic heart disease, MI or Prinzmetal's angina, hemiplegic or basilar migraine, patients who have received ergot derivatives [ergotamine, DHE] within 24 hours, caution in patients with risk factors for CAD, migraineurs presenting with atypical symptoms, pregnancy</td>
</tr>
<tr>
<td></td>
<td>• D.H.E. (dihydroergotamine) nasal spray 0.5 mg (one spray) in each nostril; repeat dose in 15 minutes for a total dose of 2 mg (4 sprays)</td>
<td>Rizatriptan and zolmitriptan are contraindicated in patients who have taken MAOIs within the past 2 weeks; sumatriptan should be avoided in these patients; frovatriptan and naratriptan do not interact with MAOIs and with almotriptan the interaction is not clinically significant</td>
</tr>
<tr>
<td></td>
<td>• D.H.E. 0.76 - 2 mg subcutaneously at onset, then 1 mg subcutaneously Q12H pm not to exceed 6 mg/week</td>
<td>•Eletriptan should not be used within 72 hours of taking any of the following drugs: ketoconazole, itraconazole, nefazodone, troleandomycin, clarithromycin, ritonavir or nelfinavir</td>
</tr>
<tr>
<td></td>
<td>• Early intervention in the attack is recommended for optimal response to DHE nasal spray</td>
<td>A third dose of frovatriptan or rizatriptan is unlikely to be of benefit if the first two doses have not been helpful.</td>
</tr>
<tr>
<td></td>
<td>• For all ergot derivatives: contraindicated in patients with peripheral vascular disease, ischemic heart disease, hepatic or renal dysfunction, sepsis, severe hypertension and pregnancy</td>
<td>Patients taking SSRIs rarely may develop serotonin syndrome if they use triptans; monitor for weakness, hyperreflexia, incoordination if concomitant use is necessary</td>
</tr>
<tr>
<td></td>
<td>• Cannot take within 24 hours of any triptan</td>
<td>Naratriptan and frovatriptan are slow-acting; may be beneficial if the headache progresses from onset to peak severity over the course of several hours</td>
</tr>
</tbody>
</table>
6. Outpatient Rescue Therapy (Home Therapy)

Every headache patient should have a rescue plan to implement at home when their usual analgesic/abortive treatments fail or when they awaken with a full-blown attack, where oral medication is of little benefit and early intervention in the headache process is not possible. It is desirable to reduce patient reliance on the Emergency Department as much as possible. Alternatives are available for patients unable to take oral medications. Sumatriptan is available as a self-injector or nasal spray; zolmitriptan, dihydroergotamine and butorphanol are available as nasal preparations. Some patients can be taught to self-inject medications by the intramuscular route. Alternatively, hydromorphone and morphine are available as rectal suppositories. Rescue medications should be made available to patients for self-treatment whenever it is reasonable to do so. Rescue therapy should be limited to 2 days a week or less to prevent medication overuse headache.

<table>
<thead>
<tr>
<th>Rescue Therapy</th>
<th>Drug/Dose</th>
<th>Contraindications/Comments</th>
</tr>
</thead>
</table>
| For prolonged attack not responding to other treatment, or as therapy upon awakening with full-blown attack | Antiemetic (see above)  
- Metoclopramide 5-10 mg PO Q6H  
- Chlorpromazine 25 mg PO Q6-8H  
- Prochlorperazine 25 mg PO Q6H or PR Q12H  
- Promethazine 25-50 mg PO or PR Q6H |  
- Sumatriptan nasal spray is not more effective than the tablet formulation for rescue treatment; injection is recommended |
|  | Serotonin receptor agonist (not to be used within 24 hours of another triptan or any ergot derivative)  
- Sumatriptan injection (see above) |  
- Use opioids with caution in patients with ileus, head injury or increased ICP, COPD or other pulmonary disease, acute asthma attack, abdominal pain, prostatic hypertrophy or biliary tract disease; may cause hypotension, constipation, pruritus, urinary retention and respiratory depression; may cause nausea and vomiting, so consider administering with an antiemetic |
|  | Ergot derivative (not to be used within 24 hours of any triptan)  
- Dihydroergotamine subcutaneously or intranasally (see above) |  
- Caution using acetaminophen in liver disease or in patients with protracted vomiting or poor oral intake for > 48 hours |
|  | Opioid analgesics  
- Morphine 15-30 mg PO or 10-20 mg PR  
- Hydromorphone 1-4 mg PO or 3 mg PR  
- Oxycodone 5-15 mg PO  
- Butorphanol 1 mg intranasally, may repeat in 60-90 minutes |  
- High incidence of medication overuse headache with any opioid or analgesic/barbiturate combination drug and also possibility of abuse or habituation; limit use to no more than 2 days/week |
|  | Combination analgesics  
- Acetaminophen/butalbital (Phrenilin®, Axocet®) 1-2 tablets Q4H prn not to exceed 6 tablets/day  
- Butalbital + Acetaminophen + Codeine + Caffeine 50/325/30/40 mg | |

7. Migraine Prophylaxis Recommendations

Initiate prophylaxis if:
- Patient has 3 or more severe migraine attacks per month that fail to respond adequately to abortive or symptomatic therapy
- The migraine attacks are severe enough to impair the patient’s quality of life
- In any patient who has ≥ 2 headaches/week that require pharmacologic intervention.

Few medications for prophylactic treatment have been subjected to adequate clinical trials. Good response may be defined as 50% reduction in the frequency or severity of migraines. Underlying principle is to use the least amount of medication with the fewest side effects to gain control of symptoms until the preventive treatment can be stopped. The medication should be continued for an adequate period, usually several months, and withdrawn slowly to prevent medication overuse headaches. Prophylactic treatment requires a major commitment by both the patient and the prescriber.

See chart on next page.
# Migraine Prophylaxis Recommendations

<table>
<thead>
<tr>
<th>Class</th>
<th>Drug/Dose</th>
<th>Contraindications/Comments</th>
</tr>
</thead>
</table>
| **Tricyclic Antidepressants (1st choice)** | • Amitriptyline 10-300 mg every night  
• Nortriptyline 10-150 mg every night  
• Desipramine 25-300 mg every night  
• Imipramine 10-300 mg every night  
• Doxepin 25-300 mg every night  
[Start with 10-25 mg, depending on available dosage forms, and increase slowly as tolerated until adequate response, intolerable side effects, or full therapeutic serum levels] | • TCAs are contraindicated in the acute recovery phase following MI, and with concomitant use of monoamine oxidase inhibitors (MAOIs)  
• Concomitant use of divalproex with amitriptyline or doxepin results in increased blood levels of the antidepressant  
• Caution with seizure disorder, history of urinary retention, glaucoma or increased intracranial pressure, hyperthyroidism, schizophrenia and cardiovascular disease  
• Nortriptyline should not be used concomitantly with reserpine  
• Doxepin is very effective in patients with sleep problems  
• Combination therapy with antidepressant and anti-epileptic drug is often very effective |
| **Beta Blocker (2nd choice)**      | • Propranolol 40-240 mg/day PO, in divided doses  
• Atenolol 50-200 mg/day PO, as single dose  
• Metoprolol 100-200 mg/day PO, in one or two doses  
• Timolol 10-30 mg/day PO; give 20 mg as divided doses initially, then once daily; give 30 mg in divided doses  
• Nadolol 20-240 mg/day PO, as single dose | • Propranolol and nadolol are contraindicated in bronchial asthma or COPD; recent studies have indicated safety of cardioselective beta blockers in patients with stable asthma  
• All beta blockers are contraindicated in overt cardiac failure, 2nd or 3rd degree AV block or severe sinus bradyarrhythmia  
• Caution in CHF, diabetes mellitus, hyperthyroidism/thyrotoxicosis, peripheral vascular disease  
• Do not withdraw abruptly; taper over 1-2 weeks |
| **Calcium Channel blocker**        | • Verapamil 240-320 mg/day PO (less effective than other prophylaxis options) | • Verapamil is contraindicated with atrial fib or flutter, accessory bypass tracts, short PR syndromes, hypotension (<90 systolic), 2nd or 3rd degree AV block without functioning artificial pacemaker, sick sinus syndrome, wide-complex ventricular tachycardia (QRS >0.12), CHF, digital ischemia, ulceration or gangrene, idiopathic hypertrophic cardiomyopathy, severe left ventricular dysfunction and in patients with impaired renal function  
• Avoid extended-release dosage forms of verapamil with GI hypermotility or GI obstruction |
| **Anti-epileptics (use when beta blockers are contraindicated or ineffective)** | • Divalproex 500-1500 mg/day  
• Divalproex ERT 500-1500 mg/day  
• Topiramate 25-200 mg/day  
• Gabapentin** (less effective than other prophylaxis options; responses are rare)  
**This drug is being used with increasing frequency for migraine prophylaxis; consult with a headache specialist for recommendations on dosing | • Divalproex is contraindicated in pregnancy or with liver disease. Use with caution with drugs that affect platelet function, or with concomitant use of other CNS depressants  
• The divalproex ERT is better-tolerated and the once-daily dosage results in improved patient compliance  
• Concomitant use of divalproex and amitriptyline results in increased blood levels of amitriptyline  
• Initiate dosing of topiramate at 25 mg daily HS, increase by 25 mg/day every 7 days until satisfactory results or intolerable side effects  
• If cognitive side effects occur with the 25 mg dose of topiramate, it is unlikely that the patient will tolerate higher doses; in some patients, it may be possible to wait until side effects resolve, then increase dose in smaller increments (15 mg/day)  
• Side effects reported with topiramate include decreased appetite, weight loss, paresthesias, depression, cognitive deficits and difficulty with memory; rarely may cause kidney stones or glaucoma  
• Dosage reductions of both gabapentin and topiramate are advised in patients with renal impairment  
• Combination therapy with antidepressant and anti-epileptic drug is often very effective |
Part Two: Unscheduled Visit Rescue Therapy

Headache Treatment Flowchart

1. Establish diagnosis

2. Darken room; antiemetic and/or rehydration if necessary

Primary headache

Secondary headache

Refer for appropriate management

Migraine

1a. Migraine Rescue Therapy
- Triptan, e.g., sumatriptan 6 mg subcutaneously or
- Opiate, e.g., hydromorphone 1-4 mg IM or IV or
- D.H.E. 1 mg IM or IV or
- Ketorolac 30-60 mg* IM or IV or
- Divalproex sodium 300-500 mg IV
*Use 15 mg if over 65 years old, < 50 kg or renally impaired

1b. Refer to PCP for follow-up, assessment of home treatment and prophylaxis plans

Medication Overuse Rescue Therapy

1c. Opiate, e.g., hydromorphone 1-4 mg IM

1d. Medication Overuse Rescue Therapy
- Opiate, e.g., hydromorphone 1-4 mg IM

1e. Arrange for analgesic washout, prophylaxis and rescue home treatment

Appendix II 7, 6
## 8. Antiemetics

<table>
<thead>
<tr>
<th>Severity</th>
<th>Antiemetic</th>
<th>Contraindications/Comments</th>
</tr>
</thead>
</table>
| Mild       | Metoclopramide 5-10 mg IV or PO Q 4-6 hr       | • Metoclopramide is contraindicated in patients with a history of seizures, pheochromocytoma, Parkinson’s disease, or in patients for whom stimulation of GI motility may be harmful, as in GI hemorrhage, obstruction or perforation  
• Metoclopramide is the antiemetic of choice because it can facilitate the more rapid absorption of oral medications by decreasing gastric stasis |
| Moderate to Severe | Chlorpromazine 25 mg PO Q6-8H or 12.5-25 mg IV  
Prochlorperazine 25 mg PR or PO Q6-8H  
Metoclopramide 5-10 mg IV or PO Q4-6H  
Haloperidol 5 mg plus lorazepam 2-5 mg IV Q4-8H  
Dolasetron 50 mg PO Q12H  
Ondansetron 8 mg PO Q12H  
Promethazine 25-50 mg PO or PR Q6H | • Phenothiazines may cause hypotension and/or dystonias  
• Phenothiazines are contraindicated in patients with Parkinson’s disease  
• Metoclopramide may cause dystonias, especially in adolescents  
• Metoclopramide is contraindicated in patients with a history of seizures, pheochromocytoma, in patients for whom stimulation of GI motility may be harmful, as in GI hemorrhage, obstruction or perforation  
• Haloperidol is contraindicated in patients with Parkinson’s disease or severe CNS depression  
• Lorazepam is contraindicated in patients with acute-angle glaucoma, sleep apnea, or severe respiratory insufficiency  
• Dolasetron should be used with caution in patients at risk for QTc prolongation  
• The total daily dose of ondansetron should not exceed 8 mg in patients with severe hepatic dysfunction  
• Promethazine is contraindicated in patients with lower respiratory illnesses, including asthma; avoid use in patients with narrow angle glaucoma, symptomatic prostatic hypertrophy, stenosing peptic ulcer, bladder neck obstruction, pyloroduodenal obstruction, or bone marrow depression. |

## 9. Migraine Rescue Therapy

**Health care facility rescue therapy: for prolonged attack not responding to other treatment, or as therapy upon awakening with full-blown attack**

| Serotonin receptor agonist (not to be used within 24 hours of another triptan or an ergot derivative) | Ergot derivative (not to be used within 24 hours of any triptan) | Opioid analgesics (treat until pain-free) | Anticonvulsant | NSAID |
| Sumatriptan injection (see above) | Dihydroergotamine injection (see above) | Morphine 8-15 mg IM, IV or subcutaneously | Divalproex sodium 300-500 mg IV X 1 dose | Ketorolac 30-60 mg* IM or IV  
*Use 15 mg IM/IV if >65 years old, < 50 kg or renally impaired |

• Use opioids with caution in patients with ileus, head injury or increased ICP, COPD or other pulmonary disease, acute asthma attack, abdominal pain, prostatic hypertrophy or biliary tract disease; may cause hypotension, constipation, pruritus, urinary retention and respiratory depression; may cause nausea and vomiting, so consider administering with an anti-emetic

• IV divalproex sodium is the rescue treatment of choice for patients who have taken any triptan for the current attack or in patients with vascular disease

• Infuse divalproex over 60 minutes

• Caution in patients with history of hypersensitivity to any NSAID, history of GI ulcer or bleed, renal dysfunction, hypertension or any cardiac condition in which fluid retention is undesirable, history of coagulation defects or simultaneous use of warfarin; contraindicated in advanced renal disease
10. Medication Overuse Headache Rescue Therapy

**Note:** Medication overuse headache may occur when analgesic/barbiturate opioid or triptan is taken > 2 days per week for > 3-4 weeks. Treatment choice involves single dose of opiate or IV chlorpromazine followed by rapid analgesic withdrawal with 6-8 week washout period during which time aggressive prophylaxis can be initiated in order to retry abortive therapies. D.H.E. and triptans are typically of little or no benefit in treating medication overuse headache.

Caution should be exercised when evaluating patients for this therapy, with thought given to the frequency of emergent visits, the potential for disrupting an ongoing detoxification program, and the possibility of drug abuse or drug-seeking behavior.

**Medication Overuse Headache Rescue Therapy**

<table>
<thead>
<tr>
<th>Health care facility rescue therapy</th>
<th>Opioid analgesics (treat until pain-free)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Morphine 8-15 mg IM, IV or subcutaneously</td>
</tr>
<tr>
<td></td>
<td>Hydromorphone 1-4 mg IM, IV or subcutaneously</td>
</tr>
<tr>
<td></td>
<td>Meperidine 50-150 mg IM or IV should be considered a second-line agent for migraine because of its short duration of action, its toxic metabolite and because it is painful to inject. Some patients may respond to it preferentially.</td>
</tr>
<tr>
<td></td>
<td>Ketorolac 30-60 mg* IM or IV</td>
</tr>
<tr>
<td></td>
<td>*Use 15 mg IM/IV if &gt; 65 years old, &lt; 50 kg or renally impaired</td>
</tr>
<tr>
<td></td>
<td>Chlorpromazine 25-50 mg IV (single dose)</td>
</tr>
</tbody>
</table>

**References**


Lipton RB, Stewart WF, Diamond S, Diamond ML, Reed M. Prevalence and burden of migraine in the United States: Data from the American Migraine Study II. Headache 2001;41:646-657.


Acknowledgements

University of Wisconsin Medical Foundation, University of Wisconsin Hospitals and Clinics, Unity Health Insurance, Physicians Plus Insurance Corporation have cooperated in the development of this guideline. This task force was a multidisciplinary work group of physicians, pharmacists and a clinical nurse specialist.

Drs Allan Rifkin, MD, Douglas Dulli, MD, and Nicolas Stanek MD, faculty physicians at the University of Wisconsin School of Medicine and Public Health, led the development efforts. Additional contributors were: Nathan Rudin, MD; Joseph Cline, MD; Steven Tyska, MD; James Svenson, MD; Thomas Meyer, MD; Joseph Kovaz, MD; Lawrence Fleming, MD; Tim Bartholow, MD; Lee Vermeulen, R.Ph.; Sarah Bland, R.Ph; Jennifer Schauer, PharmD.; Pam Kittleson, R.Ph; Nancy Morgan, RN and Ron Parton, MD.

Please direct questions, comments and suggestions regarding this guideline to Pam Kittleson, RPh, UWMF Provider Education Pharmacist, at pamela.kittleson@uwmf.wisc.edu.

Approved November 2006
Scheduled for reconsideration third quarter 2009
# Migraine Medication Chart

<table>
<thead>
<tr>
<th>CLASS</th>
<th>MEDICATION</th>
<th>RELATIVE COST</th>
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<tbody>
<tr>
<td><strong>Antiemetic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>metoclopramide</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>chlorpromazine*</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>prochlorperazine*</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>promethazine*</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>dolasetron - Anzemet</td>
<td>$$$$$</td>
</tr>
<tr>
<td></td>
<td>ondansetron - Zofran, ODT</td>
<td>$$$$$</td>
</tr>
<tr>
<td><strong>Analgesic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>aspirin</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>acetaminophen</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td><strong>NSAIDS</strong></td>
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</tr>
<tr>
<td></td>
<td>ibuprofen</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>naproxen sodium</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>ketoprofen</td>
<td>$</td>
</tr>
<tr>
<td><strong>Abortive</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td><strong>Fast-acting triptans</strong></td>
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</tr>
<tr>
<td></td>
<td>sumatriptan - Imitrex-oral, nasal, subcutaneous</td>
<td>$$$$$$$</td>
</tr>
<tr>
<td></td>
<td>almotriptan - Axert</td>
<td>$$$$$$$</td>
</tr>
<tr>
<td></td>
<td>eletriptan - Relpax</td>
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<tr>
<td></td>
<td>rizatriptan - Maxalt, MLT</td>
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<tr>
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<td>zolmitriptan- Zornig, ZMT, Nasal</td>
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<tr>
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<td><strong>Slow-acting triptans</strong></td>
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<tr>
<td></td>
<td>naratriptan - Amerge</td>
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</tr>
<tr>
<td></td>
<td>frovatriptan- Frova</td>
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<tr>
<td></td>
<td><strong>DHE</strong></td>
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<td>dihydroergotamine-nasal, subcutaneous</td>
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<tr>
<td></td>
<td>morphine*</td>
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<td><strong>Combination Analgesics</strong></td>
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<td></td>
<td>acetaminophen/butalbital</td>
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<td>butalbital/acetaminophen/codeine/caffeine</td>
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<tr>
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<td><strong>Tricyclic</strong></td>
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<tr>
<td></td>
<td>amitriptyline</td>
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</tr>
<tr>
<td></td>
<td>nortriptyline</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>(1st choice)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>desipramine</td>
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</tr>
<tr>
<td></td>
<td>imipramine</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>doxepin</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td><strong>Beta Blocker</strong></td>
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</tr>
<tr>
<td></td>
<td>propranolol</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>(2nd choice)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>atenolol</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>metoprolol</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>timolol</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>nadolol</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td><strong>Ca Channel Blocker</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>verapamil</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td><strong>Anti-epileptics</strong></td>
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</tr>
<tr>
<td></td>
<td>divalproex- Depakote</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>-Depakote ERT</td>
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</tr>
<tr>
<td></td>
<td>topiramate - Topamax</td>
<td>$$$$$$$</td>
</tr>
<tr>
<td></td>
<td>gabapentin</td>
<td>$$$$$$$</td>
</tr>
</tbody>
</table>

*available in suppository
**Appendix I: MIDAS Questionnaire and Treatment Algorithm**

**Migraine Disability Assessment Instrument**

To determine the MIDAS Score, total the numbers given in answer to questions 1-5 and determine treatment needs from MIDAS stratification scale. Questions A and B are not used to calculate the MIDAS score but provide additional information that may be helpful in determining a treatment plan. Please note: MIDAS scores >20 are of limited benefit in headache evaluation.

1. On how many days in the last 3 months did you miss work or school because of your headaches? \(\text{______ days}\)
2. How many days in the last 3 months was your productivity at work or school reduced by half or more because of your headaches? \(\text{______ days}\)
3. On how many days in the last 3 months did you not do household work because of your headaches? \(\text{______ days}\)
4. How many days in the last 3 months was your productivity in household work reduced by half or more because of your headaches? \(\text{______ days}\)
5. On how many days in the last 3 months did you miss family, school or leisure activities because of your headaches? \(\text{______ days}\)

**Total Score**

\(\text{______ TOTAL}\)

- a. On how many days in the last 3 months did you have a headache (If headache lasted more than 1 day, count each day) \(\text{______ days}\)
- b. On a scale of 0-10, on average how painful were these headaches? (Where 0=no pain at all, and 10=pain as bad as it can be) \(\text{______}\)

**MIDAS score stratification scale:**

- Grade I: Score 0-5  Low or no treatment needs
- Grade II: Score 6-10  Moderate treatment needs
- Grade III: Score 11-20  High treatment needs
- Grade IV: Score >21  Urgent treatment needs

Based on MIDAS grade and headache frequency, select treatment from the MIDAS algorithm, considering drug contraindications and warnings, the patient’s prior experiences with the various treatments, and the therapies already tried for this particular episode.

**MIDAS-based Treatment Algorithm**

```
Mild-to-moderate intermittent migraine (MIDAS Grade I - II) -> NSAIDS
Mild-to-moderate frequent migraine (MIDAS Grade I - II) -> Prophylaxis
Mild-to-moderate migraine previously failed on NSAIDS or combination analgesics (MIDAS Grade I - II) -> Triptans
Moderate-to-severe infrequent migraine (MIDAS Grade I - II) -> Dihydroergotamine
Moderate-to-severe infrequent migraine (MIDAS Grade III - IV) -> Rescue
Moderate-to-severe frequent migraine (MIDAS Grade III - IV) -> Prophylaxis
Very frequent headaches (MIDAS Grade IV) -> Suspect chronic daily headache, diagnose and treat accordingly
```
Appendix II: Analgesic Washout

- Complete cessation of offending analgesic, DHE, or triptan is required during the washout phase
- The washout phase may last 1-4 weeks or longer
- Rebound headache will be present throughout the washout phase
- The peak intensity of the rebound headache will occur 2-4 days after cessation of analgesic use
- Usually requires initiation of prophylaxis with tricyclic antidepressant or other antidepressant to break cycle

Washout procedure
1. Outpatient – Gradually reduce offending analgesic, e.g., reduce daily use by 1 tablet/day every 3-4 days. Initiate preventive treatment; tricyclic antidepressants are the most effective. Titrate the dose of antidepressant aggressively and time the total analgesic washout period to occur after a therapeutic dose is reached. Add beta-blocker or anticonvulsant to prophylactic regimen if needed. If necessary, use alternative rescue treatments during the washout phase (D.H.E. 1 mg up to TID; sumatriptan injection 6 mg up to BID; oral triptans, scheduled, over 3-5 days; NSAIDs; gabapentin; antiemetics; corticosteroids; or anxiolytics).
2. Inpatient – Abruptly discontinue offending analgesic. May use phenobarbital when discontinuing analgesic/barbiturate combination analgesics; may use clonidine, benzodiazepines, or a single dose of methadone when discontinuing opioids. Use alternative treatments as in outpatient procedure.

Appendix III: Sample Migraine Diary

Reproducible copy on next page.
Please use this chart to keep track of your headaches. This can help you and your doctor find the best treatment. For each day of the month, fill in the dates on the calendar.

**Patients with chronic migraine / chronic daily headache:** Circle appropriate abbreviation to indicate (S) Severe Headache (N) No Headache or (O) Other Headache

**All other patients:** Write in the box to indicate when the headache occurred, what medications you took, and whether you had relief.

**Month and year:** ______________________________________

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>S</td>
<td>O</td>
<td>N</td>
<td>S</td>
<td>O</td>
<td>N</td>
</tr>
<tr>
<td>N</td>
<td>S</td>
<td>O</td>
<td>N</td>
<td>S</td>
<td>O</td>
<td>N</td>
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<td>N</td>
<td>S</td>
<td>O</td>
<td>N</td>
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<tr>
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<td>S</td>
<td>O</td>
<td>N</td>
<td>S</td>
<td>O</td>
<td>N</td>
</tr>
</tbody>
</table>

Completed by: __________________________________________ Date: _______ Time: _______

If other than patient, relationship to patient: _______________________________________

Reviewed by: __________________________________________ Date: _______ Time: _______ Pager #: _______
This patient suffers from a headache disorder. This document is a summary of recommendations for the patient’s headache care. Please follow these recommendations if you see the patient for treatment of headache, and please inform the providers listed below that you have provided treatment. If you have any questions about this care plan, please contact one of the providers listed below.

**Primary Care Provider:**

**How To Reach:**

**Headache Specialist:**

**How To Reach:**

**Preventive Treatment:** Helps prevent or reduce the number and severity of headaches

**Abortive Treatment:** Helps stop headaches when they occur

**Other Treatments:**

**Notes/Comments:**

Signature: __________________________ Date: __________ Time: ______ Pager #: ___________________

UW Health providers may obtain additional information at [https://uconnect.wisc.edu/](https://uconnect.wisc.edu/) under Clinical Guidelines/Pain Management Resources.
Pain Treatment and Research Center
Pain and Headache Clinic
5429 East Terrace Drive • Madison, Wisconsin 53718-8339
Phone (608) 263-9550 • Fax (608) 263-0135

Please fax or mail us this form plus pertinent/recent medical records: clinic notes, test results, consultations. Please also specifically document this consultation request in your medical record.

Patient Information
Patient Name: ________________________________________
Patient Address: ______________________________________
City/State/Zip: ________________________________________
UW MR Number (if available): __________________________
Date of Birth: ________________________________________
Phone - Home __________ Work __________
Medical Insurer: ______________________________________

Requesting Provider Information
Provider Name: ______________________________________
Provider Address:______________________________________
City/State/Zip: ________________________________________
Phone: ________________________ Fax: __________________
Email: ______________________________________________
Primary Medical Provider (if different from above):
Name: ________________________ Phone: ________________

Requested Provider(s) (check below):
☐ Comprehensive Assessment
  Name ________________________________________________
☐ Headache Specialist
  Name ________________________________________________
☐ Interventional Management
  Name ________________________________________________
☐ Psychologist
  Name ________________________________________________

If your chosen provider is booked heavily, may we assign a different provider to shorten the wait time? ☐ Yes ☐ No

Are you willing to have your patient see a midlevel provider for the first visit to shorten the wait time? ☐ Yes ☐ No

Reason for requested visit (complete both):
1. What is the patient’s problem?____________________
   ________________________________________________
   ________________________________________________
   ________________________________________________

2. What is the key question you want answered:________
   ________________________________________________
   ________________________________________________
   ________________________________________________
   ________________________________________________

Request (check one):
☐ Consultation (opinion/advice) + procedure if needed
☐ Consultation + limited-term treatment if appropriate
☐ Consultation only, no procedure
☐ Procedure only, no consultation
☐ Evaluate and treat - no report back required
☐ Diagnostics:
  ☐ EMG/NCS (electrodiagnostic consultation)
  ☐ Cardiovagal tilt-table test
  ☐ Quantitative sensory testing

Preferred format (check one):
☐ Single provider
☐ Interdisciplinary team (physician, psychologist, physical therapist)

Please note: We do not provide medication maintenance services.

Please make sure the patient does the following:
1. Fills out our previsit questionnaires (we will mail these to the patient) and brings them to the first appointment.
2. Brings pertinent X-ray, MRI, CT, bone scan films and reports to the first appointment.
3. Contacts his/her insurance company for pre-approval. Uninsured patients require preapproval from fiscal office.

Thank you. We will notify you when an appointment is scheduled, and will send a complete report soon after the patient is seen.

— The UW Pain Center Team
What services are offered at the Pain Treatment and Research Center (PTRC)?
- Detailed neurological and musculoskeletal assessment
- Physical therapy and exercise prescription
- Pharmacotherapy (No medication maintenance. Patients should not expect opioid prescriptions at first visit)
- Image-guided interventional therapy: nerve blocks, epidural injections, implants
- Psychotherapy
- Biofeedback and relaxation training
- Diagnostic tests (EMG/nerve conduction studies, tilt table, quantitative sensory testing, others)

What services are not offered?
- Addiction medicine or detoxification services
- Long-term medication maintenance services
- Primary medical care; urgent/emergent care

What are the requirements for PTRC evaluation?
- A written professional consultation request, accompanied by relevant medical records
- A physician who is willing to provide primary medical care during treatment at the PTRC, and to resume treatment of the pain problem following discharge from the PTRC

What can you expect from a PTRC evaluation?
- A professional and thorough consultation, with detailed recommendations for treatment
- Outline and schedule of proposed treatment at PTRC, where applicable
- Timely communication to help you better care for your patients

What are the PTRC's goals for its patients?
- Improved function
- Reduced pain
- Improved quality of life

Who are appropriate candidates for evaluation at the PTRC?
- Patients with chronic pain or refractory acute pain (examples: CRPS/RSD, radiculopathy, herpes zoster-related pain)
- Patients who are willing and cognitively able to participate in treatment

Who are not appropriate candidates?
- Patients with conditions requiring emergency medical or surgical care
- Patients with poorly-controlled psychiatric conditions (examples: active psychosis, mania)
- Patients with active addictive disorders; please refer them for AODA treatment first

Are there any insurance considerations?
- Generally, patients must have health insurance to receive treatment. Medicaid from outside Wisconsin is not usually accepted. Exceptions may be made with prior approval and consultation with Patient Financial Services representatives.

UW Pain Treatment and Research Center
5249 East Terrace Drive #9950, Madison, WI 53718-8339 - (608) 263-9550 - Fax (608) 263-0135