

CHRONIC MIGRAINE WITHOUT MEDICATION OVERUSE

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Case History

A 42-year-old nurse presents to the office with an 18-year history of headache. When she was 24 years of age, she would have bouts of severe headache that lasted days and were often associated with nausea. Her more severe headaches would be throbbing, unilateral, and aggravated by movement. She typically would have severe headaches with her period. Her physician prescribed a butalbital-containing analgesic, which provided relief. Her parents both had migraines. She is married and has four children. She had irritable bowel syndrome and had suffered from depression following the birth of her first of three children.

Following the birth of her last child 8 years ago, her headaches gradually became more frequent. Over a period of 3 months they became constant. They are now continuous, but vary in intensity. They are bilateral, throbbing, and aggravated by movement. When more severe, they are associated with nausea. Several times a month, she has debilitating bouts of headache that prevent her from getting out of bed.

Over the years, she has used butalbital-containing analgesics as often as six times a day. Her physician switched her to a triptan, and she also overused this medication. She now gets little, if any, relief from either type of medication, and she rarely treats her headaches. When she becomes totally disabled, she gets a shot of meperidine from her physician.

Her review of systems is remarkable for intermittent diarrhea. She denies pulsatile tinnitus and has had no recent depression. Her only medication is a multivitamin. She does not use contraception, since she had her tubes tied after her last pregnancy. Physical and neurologic examinations were normal. Her migraine disability assessment score was 15, placing her in the moderately disabled category.

Questions on the Case

Please read the questions, try to answer them, and reflect on your answers before reading the author's discussion.

- What is the most likely diagnosis and what is the differential diagnosis?
- What investigations should be done?
- How would you treat her headaches?

Case Discussion

Diagnosis

The most likely diagnosis in this case is chronic migraine (CM), a subtype of chronic daily headache (CDHA). CDHA refers to the headache disorders experienced by people who have very frequent headaches (15 or more days a month), including headaches associated with medication overuse. CDHA can be divided into primary and secondary varieties. Primary CDHA is not related to a structural or systemic illness. Population-based studies in the United States, Europe, and the Orient suggest that 4 to 5% of the general population have primary CDHA and 0.5% have severe headaches on a daily basis. One approach to classifying frequent headache consists of first defining a primary or secondary CDHA syndrome, and then subclassifying primary CDHA on the basis of average daily headache duration (4 hours or more, or less than 4 hours). When the headache duration is greater than 4 hours, the major primary disorders to consider are CM, chronic tension-type headache (CTTHA), new daily persistent headache (NDPHA), and hemicrania continua (HC) (Table 19-1).

Table 19-1. Headache Classification for Chronic Daily Headache

Daily or near-daily headache (lasting > 4 hours/day)* for > 15 days/month	
1.5.1	Chronic migraine (previously transformed migraine)
1.6.5	Probable chronic migraine
2.3	Chronic tension-type headache
2.4.3	Probable chronic tension-type headache
4.7	Hemicrania continua
4.8	New daily persistent headache

Adapted from Silberstein et al, 2001.

*Not in new International Headache Society criteria.

Chronic Migraine

CM has been variously called transformed or evolutive migraine or mixed headache. Patients with CM often have a past history of episodic migraine that began in their teens or twenties, as our patient had. Most patients with this disorder are women, 90% of whom have a history of migraine without aura (as did our patient). Patients often report a process of transformation characterized by headaches that become more frequent over months to years, with the associated symptoms of photophobia, phonophobia, and nausea becoming less severe and less frequent. Patients often develop (or transform into) a pattern of daily or nearly daily headaches that phenomenologically resemble a mixture of tension-type headache (TTHA) and migraine. That is, the pain is mild to moderate and is not always associated with photophobia, phonophobia, or gastrointestinal features. Other features of migraine, including unilaterality, gastrointestinal symptoms, and aggravation by menstruation and other trigger factors, may persist. Many patients experience attacks of full-blown migraine superimposed on a background of less severe headaches. This process has been termed transformed migraine (TM), but the International Headache Society (IHS) is now calling it CM, in part because a history of transformation is often missing.

Silberstein and Lipton's revised criteria for TM (now CM) provide three alternative diagnostic links to migraine (Table 19-2):

1. A prior history of IHS migraine
2. A clear period of escalating headache frequency with decreasing severity of migrainous features
3. Current superimposed attacks of headaches that meet all the IHS criteria for migraine except duration

Our patient meets all of these criteria.

Migraine transformation most often develops when there is medication overuse, but transformation and CM occur without overuse, as happened with our patient. About 80% of CDHA patients seen in subspecialty clinics overuse symptomatic medication. Headache frequency often increases when medication use increases.

The IHS, in its newest classification, classifies CM as a complication of migraine (Table 19-3). Its diagnosis requires migraine headache occurring on 15 or more days a month for more than 3 months, without medication overuse. When medication overuse is present, then the diagnosis is unclear until 2 months after medication has been withdrawn without improvement. Medication overuse, if present (ie, medication-overuse headache [MOHA]), is the most likely cause of chronic symptoms. Therefore, the default rule is to code such patients according to the antecedent migraine subtype (usually migraine without aura) plus probable CM plus probable MOHA. When these criteria are still fulfilled 2 months after medication overuse has ceased, CM plus the antecedent migraine subtype should be diagnosed, and probable MOHA discarded. If at any time sooner they are no longer fulfilled because improvement has occurred, then code for MOHA plus the antecedent migraine subtype, and discard probable CM (Appendix 19-1).

One concern with the new IHS criteria for CM is the requirement that the daily headache must meet the criteria for migraine without aura. Even episodic migraine that lasts for 2 or 3 days does not always meet IHS migraine criteria each day. Some have suggested that the daily headache should be probable migraine (missing one migraine diagnostic feature) at least half of the time.

Drug Overuse and Rebound Headache.

MOHA, previously called rebound headache, drug-induced headache, and medication-misuse headache (Table 19-4), is an interaction between a therapeutic agent used excessively and a susceptible patient. Patients with frequent headaches often overuse analgesics, opioids, ergotamine, and triptans, as our patient had in the past.

When a new headache occurs for the first time in close temporal relation to substance exposure, it is coded as a

Table 19-2. Silberstein–Lipton Revised Criteria for Chronic Migraine

1.8 Chronic Migraine	
A.	Daily or almost daily (> 15 days/month) head pain for > 1 month
B.	Average headache duration of > 4 hours/day (if untreated)
C.	At least one of the following: <ol style="list-style-type: none"> 1. History of episodic migraine meeting any IHS criteria 1.1 to 1.6 2. History of increasing headache frequency with decreasing severity of migrainous features over at least 3 months 3. Headache at some time meets IHS criteria for migraine 1.1 to 1.6 other than duration
D.	Does not meet criteria for new daily persistent headache (4.8) or hemicrania continua (4.7)
E.	Not attributed to another disorder

Adapted from Silberstein et al, 2001.

IHS = International Headache Society.

Table 19-3. New IHS Criteria for Chronic Migraine

Diagnostic criteria:

- A. Headache fulfilling criteria C and D for 1.1 migraine without aura on
≥ 15 days/month for > 3 months
- B. Not attributed to another disorder

IHS = International Headache Society.

secondary headache attributed to the substance. This is also true if the headache has the characteristics of migraine, TTHA, or cluster headache. When a preexisting primary headache is made worse in close temporal relation to substance exposure, there are two possibilities. The patient can either be given the diagnosis of preexisting primary headache, or be given both this diagnosis and the diagnosis of headache attributed to the substance.

A diagnosis of headache attributed to a substance usually becomes definite only when the headache resolves or greatly improves after exposure to the substance is terminated. In the case of MOHA, an arbitrary period of 2 months without overuse is stipulated by the IHS; if the diagnosis is to be definite, then improvement must occur in that time frame. Prior to cessation, or pending improvement within 2 months after cessation, the diagnosis of probable MOHA should be applied. If improvement does not then occur within the 2-month period, then this diagnosis must be discarded. In our case, headache did not improve following overuse discontinuation.

Investigation

In order to make a diagnosis of CM, the IHS requires that the headache be not attributed to another disorder. Secondary causes of CDHA that may mimic CM include chronic posttraumatic headache, cervicogenic headache, chronic meningitis, intracranial hypertension (idiopathic and that due to intracranial sinus thrombosis), and sphenoid sinusitis. If the headache is of recent onset, if there is no obvious cause for transformation, if there is a change in headache pattern, or if the neurologic examination is

Table 19-4. New IHS Criteria for Medication Overuse

8.2.6 Headache attributed to medication overuse

Diagnostic criteria:

- A. Headache present on > 15 days/month fulfilling criteria C and D; characteristics depend on drug
- B. Regular overuse for > 3 months of a medication; amount depends on drug; ergotamine, triptans, opioids, and combination analgesics > 10 days/month; simple analgesics > 15 days/month
- C. Headache has developed or markedly worsened during medication overuse
- D. Headache resolves or reverts to its previous pattern within 2 months after discontinuation of overused medication

IHS = International Headache Society.

abnormal, then diagnostic testing may be indicated. Diagnostic testing would include magnetic resonance imaging, magnetic resonance venography, and lumbar puncture.

Idiopathic intracranial hypertension (IIH) is easily diagnosed when papilledema is present; some patients do not have papilledema. This mimics CM. Risk factors for IIH include obesity and pulsatile tinnitus.

In our case, an immediate evaluation would not be indicated due to the chronicity and stability of the disorder. However, if the patient failed to respond to treatment, then I would do diagnostic imaging.

Management Strategies

It can be difficult to treat patients suffering from CDHA, especially those who have the complications of medication overuse and comorbid depression. First, exclude secondary headache disorders; second, diagnose the specific primary CDHA disorder (ie, CM, HC, NDPHA, or CTTHA); and third, identify comorbid medical and psychiatric conditions and exacerbating factors, especially medication overuse. Our patient had CM with a history of comorbid depression. Limit all symptomatic medications (with the possible exception of the long-acting non-steroidal anti-inflammatory drugs). Patients should be started on preventive medication. Patients need education and continuous support. Hospitalization may be necessary for the following conditions:

- Severe dehydration, for which parenteral therapy may be necessary
- Diagnostic suspicion (confirmed by appropriate diagnostic testing) of organic etiology
- Prolonged, unrelenting headache with associated symptoms, such as nausea and vomiting, which if allowed to continue, would pose a further threat to the patient's welfare
- Status migraine
- Dependence on analgesics, ergots, opiates, barbiturates, or tranquilizers
- Pain that is accompanied by serious adverse reactions or complications from therapy wherein continued use of such therapy aggravates or induces further illness
- Pain that occurs in the presence of significant medical disease, but appropriate treatment of headache symptom aggravates or induces further illness
- Failed outpatient detoxification, for which inpatient pain and psychiatric management may be necessary
- Treatment requiring co-pharmacy with drugs that may cause a drug interaction, thus necessitating careful observation

Disturbances in mood and function are common and require management with behavioral methods of pain man-

agement and supportive psychotherapy (including biofeedback, stress management, and cognitive behavioral therapy). Treatment of the comorbid psychiatric illness is often necessary before the headache comes under control. Psychophysiologic therapy involves reassurance, counseling, stress management, relaxation therapy, and biofeedback. Physical therapy consists of modality treatments (heat, cold packs, ultrasound, and electrical stimulation); improvement of posture through stretching, exercise, and traction; trigger point injections; occipital nerve blocks; and a program of regular exercise, stretching, balanced meals, and adequate sleep. It has been our experience that treating painful trigger areas in the neck can result in the improvement of intractable CDHA.

Acute Pharmacotherapy

CM patients who do not overuse symptomatic medication can treat acute severe headache exacerbations with antimigraine drugs, including triptans, dihydroergotamine, and ergotamine, as well as narcotics. These drugs must be strictly limited to prevent the development of superimposed rebound headache that will complicate treatment and require detoxification. The risk of rebound is much lower for dihydroergotamine and triptans than for analgesics, narcotics, and ergotamine. In our experience, rebound hardly, if ever, occurs with dihydroergotamine, but can occur with daily triptan use.

Preventive Pharmacotherapy

Patients with daily headaches should be treated primarily with preventive medications, with the explicit understanding that medications may not become fully effective until the overused medication has been eliminated. It may take 3 to 6 weeks for treatment effects to develop.

The following principles guide the use of preventive treatment:

- From among the first-line drugs, choose preventive agents based on their side-effect profiles, and comorbid conditions.
- Start at a low dose.
- Gradually increase the dose until you achieve efficacy, until the patient develops side effects, or until the ceiling dose for the drug in question is reached.
- Explain to the patient that treatment effects develop over weeks and treatment may not become fully effective if acute treatment is overused.
- If one agent fails and if all other things are equal, then choose an agent from another therapeutic class.
- Prefer monotherapy, but be willing to use combination therapy.
- Communicate realistic expectations.

Most preventive agents used for CM have not been examined in well-designed double-blind studies.

Antidepressants are attractive agents for use in CM, since many patients have comorbid depression and anxiety. The most widely used antidepressants are the tricyclic antidepressants. Fluoxetine (Prozac), a selective serotonin reuptake inhibitor (SSRI), is coming into wider use for daily headaches; evidence from a double-blind study demonstrates its efficacy in CDHA. Other SSRIs, the new selective norepinephrine- and serotonin-reuptake inhibitors, such as venlafaxine, and the monoamine oxidase inhibitors may have a therapeutic role, but this has not been proven to date. In view of this patient's prior history of depression, this would be one of the classes of drugs first prescribed.

Beta-blockers (propranolol, nadolol) remain a mainstay of therapy for migraine and are used for CM. Since clinicians fear that beta-blockers may exacerbate depression, they are often used in combination with antidepressants. Beta-blockers are relatively contraindicated in patients with asthma and Raynaud's disease. This class would not be used first, because of the history of depression.

Calcium channel blockers are well tolerated; however, the only evidence that supports their use for CM is anecdotal. Flunarizine is effective for migraine and widely used in Canada, Europe, and Southeast Asia, but is not available in the United States.

The anticonvulsant, divalproex sodium (Depakote), is an important drug for use in CM, even for patients who have not received relief from other agents. Four double-blind, placebo-controlled studies demonstrate its efficacy in migraine. Smaller open studies support its utility in chronic migraine. Doses lower than those used in epilepsy (250 mg 2 to 3 times a day) may be sufficient. Divalproex sodium is an especially useful agent in patients with comorbid epilepsy and manic-depressive illness, and possibly, anxiety disorders.

Topiramate is a new antiepileptic agent that has gamma-aminobutyric acid-agonist properties. It has few side effects when used in low doses. Its chronic use has been associated with weight loss, not weight gain. Shuaib and colleagues found it to be effective in an open-label study. Most patients had CDHA in addition to migraine; all had failed previous preventive treatment. This uncontrolled study suggests that topiramate may be useful for CM. Although monotherapy is preferred, it is sometimes necessary to combine preventive medications. Antidepressants are often used with beta-blockers or calcium channel blockers, and divalproex sodium may be used in combination with any of these medications.

Other Treatments

Open and small placebo-controlled trials have suggested that CM may improve following injection with botulinum toxin A (Botox); whether this is due to paralysis of

muscles or to unknown mechanisms is uncertain. Botulinum toxin has been shown to be effective in decreasing the frequency of migraine attacks.

Inpatient

If outpatient treatment fails or is not safe, or if significant medical or psychiatric comorbidity is present, then inpatient treatment may be needed. The goals of inpatient treatment include the following:

- Detoxification and rehydration
- Pain control with parenteral therapy
- Establishment of effective prophylaxis
- Interruption of the cycle of pain
- Patient education
- Establishment of outpatient methods of pain control

The process can be enhanced and shortened and the patient's symptoms made more tolerable by coadministering repetitive intravenous dihydroergotamine and metoclopramide or domperidone, which helps control nausea. Following 10 mg intravenous metoclopramide or a domperidone suppository, dihydroergotamine 0.5 mg is administered intravenously. Subsequent doses are adjusted based on pain relief and side effects. Patients who are not candidates for dihydroergotamine or are truly intolerant of the drug may require repetitive intravenous neuroleptics, such as chlorpromazine, prochlorperazine, and/or corticosteroids. These agents may also supplement repetitive intravenous dihydroergotamine in refractory patients. Hospitalization can also be used for patient education, for introducing behavioral methods of pain control, and for adjusting an outpatient program of preventive and acute therapy. In our experience, repetitive intravenous dihydroergotamine is a safe and effective means of rapidly controlling intractable headache.

Case Summary

- This is a typical case of chronic migraine.
- It must be distinguished from medication-overuse headache.
- The primary approach to treatment is preventive therapy.

Selected Readings

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Editorial Comments

Dr. Silberstein provides an erudite overview of a complex and controversial subject. Many in North America had hoped that chronic daily headache and the Silberstein–Lipton criteria would be included in the revised IHS classification. Dr. Silberstein reviews these revisions comprehensively. Interestingly, one must remember that, according to IHS criteria, a diagnosis of MOHA not only refers to frequency of use, but must include worsening of headache with escalating use. The question that remains to be answered is that, according to the criteria, one could not make a diagnosis of MOHA if the headache has not increased during the time of use, no matter what the frequency. This is a difficult area of classification for clinicians, and one only hopes that further research in these areas will clarify the nosology in the future.

FINAL DIAGNOSIS:

Chronic migraine

Appendix 19-1.**1.5 Complications of Migraine**

Comment:

Code separately for both the antecedent migraine subtype and for the complication.

1.5.1 Chronic Migraine

Description:

Migraine headache occurring on 15 or more days per month for more than 3 months in the absence of medication overuse

Diagnostic criteria:

A. Headache fulfilling criteria C and D for 1.1 migraine without aura on ≥ 15 days/month for > 3 months

B. Not attributed to another disorder

Note:

1. History and physical and neurologic examinations do not suggest any of the disorders listed in groups 5 to 12, or history and/or physical and/or neurologic examinations do suggest such disorder, but it is ruled out by appropriate investigations, or such disorder is present but headache does not occur for the first time in close temporal relation to the disorder
2. When medication overuse is present and fulfills criterion B for any of the subforms of 8.2 medication-overuse headache, it is uncertain whether this criterion B is fulfilled until 2 months after medication has been withdrawn without improvement (see Comments)

Comments:

Most cases of chronic migraine start as 1.1 migraine without aura. Therefore, chronicity may be regarded as a complication of episodic migraine.

As chronicity develops, headache tends to lose its attack-wise (episodic) presentation, although it has not been clearly demonstrated that this is always so.

When medication overuse is present (ie, fulfilling criterion B for any of the subforms of 8.2 medication-overuse headache), this is the most likely cause of chronic symptoms. Therefore, the default rule is to code such patients according to the antecedent migraine subtype (usually 1.1 migraine without aura) *plus* 1.6.5 probable chronic migraine *plus* 8.2.7 probable medication-overuse headache. When these criteria are still fulfilled 2 months after medication overuse has ceased, then 1.5.1 chronic migraine *plus* the antecedent migraine subtype should be diagnosed, and 8.2.7 probable medication-overuse headache discarded. If at any time sooner they are no longer fulfilled, because improvement has occurred, code for 8.2 medication-overuse headache *plus* the antecedent migraine subtype, and discard 1.6.5 probable chronic migraine.

8.2 Medication-overuse Headache

Previously used terms:

Rebound headache, drug-induced headache, medication-misuse headache

Introduction:

This and the following section deal with headache disorders associated with chronic substance use or exposure.

Medication-overuse headache is an interaction between a therapeutic agent used excessively and a susceptible patient. The best example is overuse of symptomatic headache drugs causing headache in the headache-prone patient. By far the most common cause of migraine-like headache occurring on ≥ 15 days per month, and of a mixed picture of migraine-like and tension-type-like headaches on ≥ 15 days per month, is overuse of symptomatic migraine drugs and/or analgesics. In general, overuse is defined in terms of treatment days per month. What is crucial is that treatment occurs both frequently and regularly (ie, on several days each week). For example, if the diagnostic criterion is use on ≥ 10 days per month, this translates into 2 to 3 treatment days every week. Bunching of treatment days with long periods without medication intake, practised by some patients, is much less likely to cause medication-overuse headache.

Chronic tension-type headache is less often associated with medication overuse; however, especially amongst patients seen in headache centers, episodic tension-type headache has commonly become a chronic headache through overuse of analgesics.

Patients with a preexisting primary headache who develop a new type of headache, or whose migraine or tension-type headache is made markedly worse during medication overuse, should be given both the diagnosis of the preexisting headache and the diagnosis of 8.2 medication-overuse headache. Furthermore, the headache associated with medication overuse often has a peculiar pattern shifting, even within the same day, from having migraine-like characteristics to having those of tension-type headache (ie, a new type of headache).

The diagnosis of medication-overuse headache is clinically extremely important because patients rarely respond to preventative medications whilst overusing acute medications.

8.2.1 Ergotamine-overuse Headache

Diagnostic criteria:

A. Headache present on > 15 days/month with at least one of the following characteristics and fulfilling criteria C and D:

1. Bilateral
2. Pressing/tightening quality
3. Mild or moderate intensity

B. Ergotamine intake on ≥ 10 days/month on a regular basis for ≥ 3 months

C. Headache has developed or markedly worsened during ergotamine overuse

D. Headache resolves or reverts to its previous pattern within 2 months after discontinuation of ergotamine

Comment:

Bioavailability of ergots is so variable that a minimum dose cannot be defined.

8.2.2 Triptan-overuse Headache

Diagnostic criteria:

A. Headache present on > 15 days/month with at least one of the following characteristics and fulfilling criteria C and D:

1. Predominantly unilateral
2. Pulsating quality
3. Moderate or severe intensity
4. Aggravated by or causing avoidance of routine physical activity (eg, walking or climbing stairs)

5. Associated with at least one of the following:
 - a) Nausea and/or vomiting
 - b) Photophobia and phonophobia
- B. Triptan intake (any formulation) on ≥ 10 days/month on a regular basis for ≥ 3 months
- C. Headache frequency has markedly increased during triptan overuse
- D. Headache reverts to its previous pattern within 2 months after discontinuation of triptan

Comment:

Triptan overuse may increase migraine frequency to that of chronic migraine. Evidence suggests that this occurs sooner with triptan overuse than with ergotamine overuse.

8.2.3 Analgesic-overuse Headache

Diagnostic criteria:

- A. Headache present on > 15 days/month with at least one of the following characteristics and fulfilling criteria C and D:
 1. Bilateral
 2. Pressing/tightening (nonpulsating) quality
 3. Mild or moderate intensity
- B. Intake of simple analgesics on ≥ 15 days/month* for > 3 months
- C. Headache has developed or markedly worsened during analgesic overuse
- D. Headache resolves or reverts to its previous pattern within 2 months after discontinuation of analgesics

Note*:

Expert opinion rather than formal evidence suggests that use on ≥ 15 days/month rather than ≥ 10 days/month is needed to induce analgesic-overuse headache.

8.2.4 Opioid-overuse Headache

Diagnostic criteria:

- A. Headache present on > 15 days/month fulfilling criteria C and D
- B. Opioid intake on ≥ 10 days/month for > 3 months
- C. Headache develops or markedly worsens during opioid overuse
- D. Headache resolves or reverts to its previous pattern within 2 months after discontinuation of opioid

Comment:

Prospective studies indicate that patients overusing opioids have the highest relapse rate after withdrawal treatment.

8.2.5 Combination Medication-overuse Headache

Diagnostic criteria:

- A. Headache present on > 15 days/month with at least one of the following characteristics and fulfilling criteria C and D:
 1. Bilateral
 2. Pressing/tightening (nonpulsating) quality
 3. Mild or moderate intensity
- B. Intake of combination medications[†] on ≥ 10 days/month for > 3 months
- C. Headache develops or markedly worsens during combination medication overuse
- D. Headache resolves or reverts to its previous pattern within 2 months after discontinuation of combination medication

Note[†]:

Combination medications typically implicated are those containing simple analgesics combined with opioids, butalbital, and/or caffeine.

8.2.6 Headache Attributed to other Medication Overuse

Diagnostic criteria:

- A. Headache present on > 15 days/month fulfilling criteria C and D
- B. Regular overuse[‡] for > 3 months of a medication other than those described above
- C. Headache has developed or markedly worsened during medication overuse
- D. Headache resolves or reverts to its previous pattern within 2 months after discontinuation of overused medication

Note[‡]:

The definition of overuse in terms of treatment days per month is likely to vary with the nature of the medication.

8.2.7 Probable Medication-overuse Headache

Diagnostic criteria:

- A. Headache fulfilling criteria A to C for any one of the subforms 8.2.1 to 8.2.6 above
- B. One or other of the following:
 1. Overused medication has not yet been withdrawn
 2. Medication overuse has ceased within the last 2 months, but headache has not so far resolved or reverted to its previous pattern

Comments:

Codable subforms of 8.2.7 probable medication-overuse headache are 8.2.7.1 probable ergotamine-overuse headache, 8.2.7.2 probable triptan-overuse headache, 8.2.7.3 probable analgesic-overuse headache, 8.2.7.4 probable opioid-overuse headache, 8.2.7.5 probable combination medication-overuse headache, and 8.2.7.6 headache probably attributed to other medication overuse.

Many patients fulfilling the criteria for 8.2.7 probable medication-overuse headache also fulfill criteria for either 1.6.5 probable chronic migraine or 2.4.3 probable chronic tension-type headache. They should be coded for both until causation is established after withdrawal of the overused medication.

Patients with 1.6.5 probable chronic migraine should additionally be coded for the antecedent migraine subtype (usually 1.1 migraine without aura).

