AN ALTERNATIVE PAYMENT MODEL
FOR PATIENT-CENTERED HEADACHE CARE

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I. Overview of Patient-centered Headache Care Payment

MACRA provides the opportunity for neurologists to develop and participate in new value-based models of care. The AAN has developed this Patient-centered Headache Care Payment (PCHCP) for that purpose. Most alternative payment models (APMs) in place at this time are primary care focused (e.g., Accountable Care Organizations [ACOs]) or bundled payment models around a procedure (e.g., total hip replacement), medical care (e.g., diabetes), or a hospitalization (e.g., CMS’s Bundled Payments for Care Improvement initiative). Our goal is to present models that center on the patient and the specialty care and expertise that neurologists provide. The ultimate goal is for patients to have better health, less disability and disruption to their lives; reduced cost to payers and society; and neurologists to have greater satisfaction with their practices. We also endorse collaborative care across specialties, including those that specialize in Internal Medicine, Family Practice, Pediatrics and others, reducing barriers to shared patient management, and enhanced communication regarding both stable and active patients. This PCHCP promotes active alignment between neurologists and PCPs in any given community.

The Patient-centered Headache Care Payment is an APM designed to give neurologists and primary care physicians the resources and flexibility they need to deliver accurate diagnoses and appropriate, cost-effective treatment for patients with headaches and migraines.

Today, physicians treating patients with headaches are paid based on the number of times the patient comes to the physician’s office or the number of tests or procedures the patient receives (fee-for-service). There is no payment at all for many high-value services, such as phone calls to respond to patient problems, coordination with other physicians, and social and psychological services to patients, and payments are often inadequate to support the additional time and services needed by patients with more complex conditions. As a result, patients may be inaccurately diagnosed or incorrectly treated, they may experience continued headaches or side effects of medication that could have been avoided, and they may be hospitalized or be seen in an emergency department for headaches and related problems that could have been prevented (See Section II for a more complete list of the opportunities for improving care and reducing costs in the diagnosis and treatment of headaches and the problems with the current fee-for-service system that prevent physicians from making those improvements.)

Because patients need different types of care during diagnosis versus treatment and different types of care depending on how effectively available treatments can control their headaches, there would be three different categories of PCHCP payments (see Section III for a more detailed description of the three categories of payment):

1. Diagnosis and initial treatment for patients with poorly controlled headaches
2. Continued care for patients with difficult-to-control headaches
3. Continued care for patients with well-controlled headaches

In the first two categories of patients and care, Patient-centered Headache Care Payment (PCHCP) would replace current Evaluation and Management (E/M) payments with a fixed payment amount, adjusted for patient severity and/or comorbidities that could be used by neurologists or primary care physicians to deliver a range of services to patients who have headaches without the restrictions in the current fee-for-service system. For the third category of patients, PCHCP would provide supplemental payments in addition to E/M payments in order to
give neurologists or PCPs the flexibility to deliver services other than face-to-face visits with clinicians and to support coordination between PCPs and specialists.

In return for these new and supplemental payments, the physicians would take accountability for controlling the cost and quality of the headache-related care their patients receive.

As above, because patients with different characteristics will need different amounts of services, the payment amounts in the first two categories would be stratified based on specific patient characteristics such as their headache diagnosis, the frequency and severity of their headaches, and their other comorbidities. (See Section IV for a more detailed description of the stratifications.)

Any new payment mechanism that incentivizes physicians to manage resources must include measures that ensure that basic quality and patient satisfaction metrics are maintained (or hopefully improved). It is also true that you will not get paid more or differently for doing the same thing as before. In order to receive Patient-centered Headache Care Payments, physicians would be expected to meet minimum quality standards developed by the American Academy of Neurology, the International Headache Society, and the American Headache Society. In addition, the physicians would be accountable for maintaining good performance on measures of service utilization, spending, care quality, patient outcomes, and patient experience that are specific to each category of patients and care. The amount of payments the physicians receive under PCHCP would be adjusted up or down based on their performance on these measures. (See Sections IV and VI for a more detailed description of the performance measures in each category and how payment amounts would be established and adjusted based on performance.)

The basic Patient-centered Headache Care Payment system is designed to be easily implementable by both physician practices and payers. The physician practice would bill one of a new series of service codes instead of or in addition to billing traditional E/M CPT codes, and the payer would pay the practice a pre-agreed amount for each of those new service codes, similar to a fee schedule based on CPT codes. The physician would determine the appropriate service code to bill for an individual patient based on the category of payment the patient was eligible for and the characteristics of that patient. (See Section VII for a more detailed description of the billing and payment process.)

In addition, physician practices and health systems that were willing and able to do so could accept larger “bundled” versions of Patient-centered Headache Care Payments in one or both of the first two categories of payment. Instead of a monthly payment that is designed only to cover the clinical services directly delivered by the physician managing the patient’s care, these optional bundled payments would include the funds to pay for some or all of the other services that patients with headaches receive. These bundled payments would give the physician practice greater flexibility to redesign the way care is delivered, but they would also require the physician practice to take greater accountability for managing utilization and spending. (See Section V for a more detailed discussion of the bundled payment options.)

Patient-centered Headache Payment would enable neurologists to serve as a principal site of care for patients with headache or to work with primary care physicians or other specialists to co-manage the patient’s headaches and other health problems in a coordinated way. The flexible monthly payments under PCHCP would be similar to the monthly per-patient payments being used in many primary care medical home payment models, but in PCHCP, the payment amounts

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would be specifically designed to meet the needs of headache patients and the performance measures would be focused specifically on the types of services and outcomes relevant to headache patients. In contrast to “shared savings” payment models, PCHCP would not tie the physician’s payment to how much money they can save, but rather, PCHCP is designed to provide adequate flexible resources to the physician in order to enable them to deliver care in the most efficient and effective way possible to patients with headaches. The cost savings for payers and society is built in by paying up-front for more time, better diagnosis, and better stewardship of resources.
II. Goals of Patient-centered Headache Care

A. Improving Outcomes for Patients and Controlling Costs for Payers

Accurate, Efficient Diagnosis
- Reduce unnecessary imaging for diagnosis
- Reduce use of inappropriate forms of imaging for diagnosis
- Reduce costs and loss of productivity due to multiple referrals and tests
- Reduce use of inappropriate medications due to misdiagnosis
- Reduce loss of productivity due to failure to diagnose and treat effectively

Appropriate, Cost-Effective Treatment
- Reduce absenteeism and increase work productivity through effective treatment
- Reduce unnecessary use of medications
- Use non-pharmacologic approaches to treatment
- Use lower cost medications with equivalent effectiveness
- Reduce medication costs by optimizing prophylaxis and treatment
- Reduce ED visits for treatment of headache
- Reduce ED visits for complications (e.g., dehydration due to nausea)
- Reduce hospitalizations for treatment of headache-related complications
- Reduce unnecessary/inappropriate treatment following ED visits

Prevention of Future Costs
- Reduce opioid and barbiturate dependency
- Prevent progression from episodic to chronic migraine
- Prevent long-run complications of poorly-managed migraine (brain function, stroke, etc.)

B. Resolving the Barriers in Current Fee-for-service Payment

- Inadequate payment for time needed to accurately diagnose types of headaches and to plan treatment in complex cases
- Inadequate payment for time spent in counseling, reviewing medication side effects, and encouraging medication adherence
- No payment for non-face-to-face contacts with patients to encourage medication adherence, respond to problems, etc.
- No payment for non-physician services and non-medication therapies to assist patients
- No payment for phone/email communications between neurologists and PCPs to facilitate accurate diagnosis of headaches and avoid unnecessary office visits
- No payment for phone/email coordination between neurologists and PCPs to enable co-management of headache/migraine cases

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III. Structure of Patient-centered Headache Care Payment

A. Categories of Headache Care

Patients with headaches differ significantly in the types, frequency, and severity of headaches, the level of disability the headaches create, and the ability of available therapies to control their headaches. In order to provide the type of care that patients with headaches need, Patient-centered Headache Care Payment would be divided into three categories:

1. **Diagnosis and Initial Treatment for Poorly Controlled Headaches.** This would be a one-time payment to a Headache Care Team to support evaluation, testing, diagnosis, treatment planning, and a 3 month period of initial treatment for a patient who is experiencing headaches and who is not currently receiving effective treatment for those headaches. This would include re-evaluation and revision of treatment for an established patient with previously well-controlled headaches who experiences a significant increase in frequency, severity, or disability of headaches or a change in another medical condition that requires revision of their headache treatment plan.

2. **Continued Care for Difficult-to-control Headaches.** This would be a monthly payment to a Headache Care Team to support ongoing care for patients who continue to have frequent, severe, or disabling headaches or whose treatment regimens require close monitoring and management.

3. **Continued Care for Well-controlled Headaches.** For patients with infrequent, low-severity, non-disabling headaches that are adequately addressed with symptomatic medications, a Headache Care Team would be able to bill and be paid for non-face-to-face visits in addition to traditional E/M services in order to ensure rapid and effective response to patient problems and to enable coordination of headache care with care for the patient’s other conditions.

In return for receiving Patient-centered Headache Care Payments, physicians on Headache Care Teams would be accountable for the cost and quality of the headache-related treatment their patients receive.

B. Physicians Eligible to Receive Payments

The most appropriate physician to diagnose and treat a patient’s headaches will depend on the nature of the symptoms, the patient’s health conditions, and the availability of physicians in the community where the patient lives. In some cases, a primary care physician or other primary care provider will be able to assign a diagnosis and develop a treatment plan, whereas in other cases, a neurologist or headache specialist will need to do so. Ideally, diagnosis and treatment planning for headaches would be done by a Headache Care Team involving both the patient’s primary care provider and a neurologist or headache specialist, with the neurologist or headache specialist working with primary care providers to ensure that patients are correctly diagnosed and treated and focusing their time on the patients who need the expertise of a neurologist or headache specialist.
IV. Details of Payments for Each Category of Patients

1. Diagnosis and Initial Treatment for Poorly Controlled Headaches

1-A. Eligible Patients

A physician or team of physicians could receive this payment for a patient who either:

- Has been experiencing severe, frequent, or disabling headaches and has not been diagnosed or treated by a physician for those headaches;
- Has received treatment from a different physician practice that has not been successful in controlling the severity, frequency, or disability of headaches, or where the treatment used to control the headaches requires large amounts of pain medications, requires use of expensive medications, or results in problematic side effects; or
- Is currently under the care of the same physicians or has received care from the physicians in the past, but the patient has experienced a significant and persistent increase in frequency, severity, disability, or type of headaches, or has experienced a change in another medical condition that requires modification of the existing headache treatment plan.

In order for the physician(s) to receive a Patient-centered Headache Care Payment for Diagnosis and Initial Treatment of an eligible patient, and in order for the patient to benefit from the enhanced services available through the payment, the patient would need to explicitly designate the physician or team of physicians receiving the payment as the patient’s “Headache Care Team” and agree to receive all of their headache-related services from the members of that team, or from other providers designated by that team, for the three months covered by the Diagnosis and Initial Treatment Payment.

Before agreeing to serve as a patient’s Headache Care Team, the Team could ask the patient to agree to take specific types of actions and follow specific guidelines designed to maximize the Team’s ability to deliver care that achieves the best possible outcomes at the most affordable cost.
1-B. Structure of Payments and Services Covered

*Payment for Physician Services*

The Headache Care Team would receive a single bundled payment to support all of the *headache-related clinical services* that an eligible patient needs from the physician practice(s) on the Team in order to support the following activities for a three-month period:

- Determination of a diagnosis of the type of headaches the patient is experiencing;
- Engaging in a shared decision-making process with patients regarding treatment options;
- Development of a treatment plan for the patient’s headaches in cooperation with other physicians who are providing care for the patient’s other health care needs, or in cooperation with other physicians who will be treating another health condition which is the primary cause of the headaches;
- Provision of patient education regarding the treatment plan; and
- Supervision of the implementation of the treatment plan for three months.

The payment would be “bundled” in the sense that it would replace current E/M services payments for these patients, i.e., the physician(s) would no longer bill the patient’s payer (or the patient) for office visits during the three-month period of time covered by the payment, but instead would bill for the Patient-centered Headache Care payment. The Headache Care Team would have the flexibility to use this payment in ways that are not currently permitted or adequately supported with E/M services payments, e.g., the payments could support non-face-to-face communications between physicians and patients (such as phone calls and emails), services delivered to patients by nurses and other practice staff, and longer visits for higher-need patients.

The payment would only replace E/M payments for office visits related to headache care. If a patient with headaches visits the physician(s) for an unrelated neurological issue or for a health problem other than headache, those visits would still be paid for separately under the regular physician fee schedule (or under an alternative payment model designed for those other health problems).

*Payment for Other Headache-Related Services*

Other headache-related services—laboratory tests and imaging studies, medications, hospitalizations, etc.—that are received by the patient during the three-month period of time covered by the payment would be paid separately, but the Headache Care Team would be accountable for utilization and/or spending on those services as discussed in Section IV-1-D.

Headache Care Teams and their patients would be exempt from any prior authorization requirements for ordering tests or medications.

Headache Care Teams would have the option of accepting a bundled payment that would cover the costs of some or all of the other headache-related services the patient receives in addition to the clinical services from the physicians, as described in more detail in Section V.
1-C. Stratification of Payments and Performance Measures on Patient Characteristics

Individuals with headache differ significantly in the types, frequency, severity, and disability of headaches they experience, and they differ in terms of the other health problems they have besides headaches. These factors can affect three things:

1. The amount of time or resources that the physician practice(s) receiving the payment would need to spend in determining a diagnosis, developing a treatment plan, and supervising the initial treatment of the patient;

2. The number, type, or cost of testing, imaging, drugs, and other services that the patient would need; and

3. The outcomes, such as reductions in headache frequency, severity, and disability, medication side effects, etc. that would be achievable for the patients based on current treatments that are available

To address this, payment amounts and performance measures for the Diagnosis and Initial Treatment Payment would be stratified into the following subcategories:

<table>
<thead>
<tr>
<th>Payment and Performance Subcategories for Diagnosis and Initial Treatment of Poorly Controlled Headaches</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subcategory</strong></td>
</tr>
<tr>
<td>Level 1</td>
</tr>
<tr>
<td>Level 2</td>
</tr>
<tr>
<td>Level 3</td>
</tr>
</tbody>
</table>

Significant comorbidities would include:
- Depression
- Anxiety
- Sleep disorders
- Bipolar disorders
• Panic disorders  
• Personality disorders  
• Fibromyalgia  
• Epilepsy  
• Stroke  
• Gastritis  
• Renal insufficiency  
• Coronary artery disease  
• Hypertension  
• Substance abuse  
• Cerebral vascular disease  
• Cardiac arrhythmia  
• Peripheral vascular disease  
• Other illnesses being treated with medications that interact with medications for treatment or prevention of headache

These subcategory definitions could also serve as part of the overall system of “patient condition groups” Congress required be created under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA).

1-D. Accountability for Quality, Spending, and Outcomes

For the patients for whom a Headache Care Team receives Diagnosis and Initial Treatment Payments, the Headache Care Team would accept accountability for specific aspects of the quality of care delivered to the patients, the utilization and cost of the headache-related services the patients receive, and the outcomes achieved for the patients.

Minimum Quality Standards

The Headache Care Team would be required to meet the following standards in order to bill for the Diagnosis and Initial Treatment Payment for a patient:

• Have at least one face-to-face visit with the patient
• Document frequency, severity, and disability of headaches
• Document the use of AAN and International Headache Society/American Headache Society guidelines for testing and imaging for diagnosis of headaches or reasons for deviation from guidelines, including the patient’s preference
• Determine and document a diagnosis for the patient’s headache
• Document the use of AAN and International Headache Society/American Headache Society guidelines for diagnosis and initial treatment of headaches in developing the patient’s treatment plan, or document the reasons for deviation from guidelines, including the patient’s preference
• Complete a shared decision-making process with the patient regarding their treatment plan during a face-to-face visit
Performance Measures Related to Service Utilization and Spending

The Headache Care Team’s performance would be assessed on the following measures of utilization and spending during the three month diagnosis and initial treatment period:

- Average per-patient spending on headache-related laboratory testing and imaging, using standardized prices for the testing and imaging services. Standardized prices would be used so that the physician is not penalized by differences in prices of services available to patients under their health insurance.
- Average per-patient spending on headache-related medications, using standardized prices for the medications. Standardized prices would be used so that the physician is not penalized by differences in prices of services available to patients under their health insurance.
- Average per-patient rates of visits to emergency departments for management of headaches.
- Average per-patient rates of admission to the hospital for management of headaches.

Performance Measures Related to Care Quality and Outcomes

The Headache Care Team’s performance would be assessed on the following quality and outcome measures:

- Frequency, severity, and disability of headaches and changes from the patient’s baseline, using a standardized scale such as MIDAS.
- % of patients using opioids.
- % of patient using barbiturates.
- % of patients rating access to providers and experience of care as “excellent.”

Exclusions of Patients from Performance Measures

Patients would be excluded from the numerators and denominators of the cost and quality performance measures if:

- They failed to adhere to key aspects of the treatment plan; or
- They did not have affordable insurance coverage for their medications.

Assessment of Performance

Performance on the quality/outcomes measures would be determined by comparing the Headache Care Team’s performance to the average performance of all Headache Care Teams receiving the payment during the prior year for each subcategory of patients and headache diagnosis. As long as the Team’s performance was within reasonable statistical variation around the average, the Team’s performance would be deemed “good performance.” If performance was significantly better than this range, it would be deemed “high performance” and if it was significantly worse, it would be deemed “low performance.”

During the initial years of implementation when there are not sufficient prior year data available on Headache Care Teams’ performance under this payment for comparison purposes,
performance would be determined based on comparisons to the average performance on the measures for all headache patients for whom data are available in the prior year.
2. Continued Care for Difficult-to-control Headaches

2-A. Eligible Patients

A physician or team of physicians could receive this payment for a patient who has been diagnosed with a primary headache disorder and who:

- Has 10+ headache days per month which adequately respond to symptomatic/abortive therapy; or
- Has 3+ headache days per month with poor response to symptomatic/abortive therapy; or
- Has 1-2 severe/disabling headache days per month with poor response to symptomatic/abortive therapy; or
- Has intractable migraine or status migraine requiring intravenous or injected medication treatment during the month
- Has chronic daily headaches with medication overuse
- Has complex headache disorders, such as hemiplegic migraine, basilar migraine, etc.

In order for the physician(s) to receive a Patient-centered Headache Care Payment for Continued Care of an eligible patient, and in order for the patient to benefit from the enhanced services available through the payment, the patient would need to explicitly designate the physician or team of physicians receiving the payment as the patient’s Headache Care Team and agree to receive all of their headache-related services from the members of that team, or from other providers designated by that team, for the month covered by the Continued Care Payment.

Before agreeing to serve as a patient’s Headache Care Team, the Team could ask the patient to agree to take specific types of actions and follow specific guidelines designed to maximize the Team’s ability to deliver care that achieves the best possible outcomes at the most affordable cost.

2-B. Structure of Payments and Services Covered

Payment for Physician Services

The Headache Care Team would receive a bundled payment each month to support all of the headache-related clinical services that an eligible patient needs from the physician practice(s) on the Team during the month to support the following activities:

- Supervision of the patient’s treatment;
- Evaluation of changes in the patient’s headache frequency or severity;
- Evaluation of changes in any medication side effects;
- Revisions to the patient’s treatment plan as necessary; and
- Patient education and supervision of use of prophylactic medications for patients using high levels of medications for acute symptoms
These payments would be “bundled” in the sense that they would replace current E/M services payments for these patients, i.e., the physician(s) would no longer bill the patient’s payer (or the patient) for office visits during period of time covered by the payment, but instead would bill for the Patient-Centered Headache Care payment. The Headache Care Team would have the flexibility to use this payment in ways that are not currently permitted or adequately supported with Evaluation & Management services payments, e.g., the payments could support non-face-to-face communications between physicians and patients (such as phone calls and emails), services delivered to patients by nurses and other practice staff, and longer visits for higher-need patients.

The payment would only replace E/M payments for office visits related to headache care. If a patient with headaches visits the physician(s) for an unrelated neurological issue or for a health problem other than headache, those visits would still be paid for separately under the regular physician fee schedule (or under an alternative payment model designed for those other health problems).

**Payment for Other Headache-related Services**

Other headache-related services—laboratory tests and imaging studies, medications, hospitalizations, etc.—that are received by the patient during the month covered by the payment would be paid separately, but the Headache Care Team would be accountable for utilization and/or spending on those services as discussed in Section IV-2-D.

Headache Care Teams and their patients would be exempt from any prior authorization requirements for ordering tests or medications.

Headache Care Teams would have the option of accepting a bundled payment that would cover the costs of some or all of the other headache-related services the patient receives in addition to the clinical services from the physicians, as described in more detail in Section V.
2-C. Stratification of Payments and Performance Measures on Patient Characteristics

Individuals with headache differ significantly in the types, frequency, severity, and disability of headaches they experience, and they differ in terms of the other health problems they have besides headaches. These factors can affect three things:

1. The amount of time or resources that the physician practice(s) receiving the payment would need to spend in supervising the treatment of the patient
2. The number, type, or cost of testing, imaging, drugs, and other services that the patient would need; and
3. The outcomes, such as reductions in headache frequency, severity, and disability, medication side effects, etc. that would be achievable for the patients based on current treatments that are available

To address this, payment amounts and performance measures for the Continued Care for Difficult-to-control Headache Payments would be stratified into the following subcategories:

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Billing Code</th>
<th>Patient Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>xxx21</td>
<td>10+ headache days per month with adequate response to symptomatic/abortive therapy, and no significant comorbidities requiring coordination of treatment</td>
</tr>
<tr>
<td>Level 2</td>
<td>xxx22</td>
<td>3–14 headache days per month with poor response to symptomatic/abortive therapy OR 1–2 severe/disabling headache days per month with poor response to symptomatic/abortive therapy OR 3+ headache days per month with adequate response to symptomatic/abortive therapy but significant comorbidities affecting treatment</td>
</tr>
<tr>
<td>Level 3</td>
<td>xxx23</td>
<td>15+ headache days per month with poor response to symptomatic/abortive therapy OR 3+ severe/disabling headache days per month with poor response to symptomatic/abortive therapy</td>
</tr>
<tr>
<td>Level 4</td>
<td>xxx24</td>
<td>Intractable migraine or status migraine requiring intravenous or injected medication treatment during the month</td>
</tr>
<tr>
<td>Level 5</td>
<td>xxx25</td>
<td>Complex migraine disorders such as chronic daily headaches with medication overuse, hemiplegic migraine, basilar migraine, etc.</td>
</tr>
</tbody>
</table>
Significant comorbidities would include:

- Depression
- Anxiety
- Sleep disorders
- Bipolar disorders
- Panic disorders
- Personality disorders
- Fibromyalgia
- Epilepsy
- Stroke
- Gastritis
- Renal insufficiency
- Coronary artery disease
- Hypertension
- Substance abuse
- Cerebral vascular disease
- Cardiac arrhythmia
- Peripheral vascular disease
- Other illnesses being treated with medications that interact with medications for treatment or prevention of headache

2-D. Accountability for Quality, Spending, and Outcomes

For the patients for whom a Headache Care Team receives Continued Care for Difficult-to-control Headache Payments, the Headache Care Team would accept accountability for specific aspects of the quality of care delivered to the patients, the utilization and cost of the headache-related services the patients receive, and the outcomes achieved for the patients.

**Minimum Quality Standards**

The Headache Care Team would be required to meet the following standards in order to bill for payment for a patient:

- Have at least one face-to-face visit with the patient each year
- Document a diagnosis for the patient’s headache
- Document frequency, severity, and disability of headaches
- Document the use of AAN and International Headache Society/American Headache Society guidelines for diagnosis and treatment of headaches or reasons for deviation from guidelines
- Complete a shared decision-making process with the patient regarding any changes in their treatment plan during a face-to-face visit
**Performance Measures Related to Service Utilization and Spending**

The Headache Care Team’s performance would be assessed on the following utilization and spending measures:

- Average per-patient spending on headache-related laboratory testing and imaging, using standardized prices for the testing and imaging services. Standardized prices would be used so that the physician is not penalized by differences in prices of services available to patients under their health insurance.

- Average per-patient spending on headache-related medications, using standardized prices for the medications. Standardized prices would be used so that the physician is not penalized by differences in prices of services available to patients under their health insurance.

- Average per-patient rate of visits to emergency departments for management of headaches.

- Average per-patient rate of admissions to the hospital for management of headaches.

**Performance Measures Related to Care Quality and Outcomes**

The Headache Care Team’s performance would be assessed on the following quality and outcome measures:

- Frequency, severity, and disability of headaches, and changes from the patient’s baseline, using a standardized scale such as MIDAS

- % of patients using opioids

- % of patient using barbiturates

- % of patients rating access to providers and experience of care as “excellent”

**Exclusions of Patients from Performance Measures**

Patients would be excluded from the numerators and denominators of the measures if:

- They failed to adhere to key aspects of the treatment plan; or

- They did not have affordable insurance coverage for their medications.

**Assessment of Performance**

Performance on the spending/quality/outcomes measures would be determined by comparing the Headache Care Team’s performance to the average performance of all Headache Care Teams receiving the payment during the prior year for each subcategory of patients. As long as the Team’s performance was within reasonable statistical variation around the average, the Team’s performance would be deemed “good performance.” If performance was significantly better than this range, it would be deemed “high performance” and if it was significantly worse, it would be deemed “low performance.”

During the initial years of implementation when there are not sufficient prior year data available on Headache Care Teams’ performance under this payment for comparison purposes, performance would be determined based on comparisons to the average performance on the measures for all headache patients for whom data are available in the prior year.
3. **Continued Care for Patients with Well-controlled Headaches**

3-A. **Eligible Patients**

A physician or team of physicians could receive these payments for a patient who:

- Has been diagnosed with a primary headache disorder, experiences fewer than 10 headache days per month, and the headaches respond adequately to prescribed symptomatic/abortive therapy; or
- Has been diagnosed with a secondary headache disorder

In order for the physician(s) to receive a Patient-centered Headache Care Payment for Continued Care of an eligible patient during a month, and in order for the patient to benefit from the enhanced services available through the payment, the patient would need to explicitly designate the physician or team of physicians receiving the payment as the patient’s “Headache Care Team” and agree to receive all of their headache-related services from the members of that team, or from other providers designated by that team, for a full month.

Before agreeing to serve as a patient’s Headache Care Team, the Team could ask the patient to agree to take specific types of actions and follow specific guidelines designed to maximize the Team’s ability to deliver care that achieves the best possible outcomes at the most affordable cost.

3-B. **Structure of Payments and Services Covered**

*Payment for Additional Physician Services*

In addition to billing for E/M Services payments for face-to-face visits (or billing for services under another Alternative Payment Model for the patient’s other health problems), the members of the Headache Care Team would be able to bill for the following services related to the patient’s headache care:

<table>
<thead>
<tr>
<th>Billing Code</th>
<th>Service Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxx31</td>
<td>A telephone or e-mail response to questions or concerns raised by patients about a change in the frequency, severity, or disability of their headaches, about side effects from their headache medication, about the appropriate use of their headache medications, or about other headache-related issues</td>
</tr>
<tr>
<td>xxx32</td>
<td>A telephone or email communication with another physician on the Headache Care Team to determine the most appropriate response to issues regarding a patient’s treatment for headaches</td>
</tr>
</tbody>
</table>

For example, if a primary care physician on the Headache Care Team was managing the patient’s headache care and needed to consult with one of the neurologists on the Headache Care Team, both the PCP and the neurologist could bill for the consultation using the xxx32 code.
Payment for Other Headache-Related Services

Other headache-related services—laboratory tests and imaging studies, medications, hospitalizations, etc.—that are received by the patient would continue to be paid separately, but the Headache Care Team would be accountable for utilization and/or spending on those services as discussed in Section IV-3-C.

3-C. Accountability for Quality, Spending, and Outcomes

For the patients for whom a Headache Care Team receives Continued Care for Well-controlled Headache Payments, the Headache Care Team would accept accountability for specific aspects of the quality of care delivered to the patients, the utilization and cost of the headache-related services the patients receive, and the outcomes achieved for the patients.

Minimum Quality Standards

The Headache Care Team would be required to meet the following standards in order to bill for payment for a patient:

- Document a diagnosis for the patient’s headache
- Document frequency, severity, and disability of headaches
- Document the use of AAN and International Headache Society/American Headache Society guidelines for diagnosis and treatment of headaches or reasons for deviation from guidelines
- Complete a shared decision-making process with the patient regarding any changes in their treatment plan during a face-to-face visit

Performance Measures Related to Service Utilization and Spending

The Headache Care Team’s performance would be assessed on the following utilization and spending measures:

- Average per-patient per-month total spending on (1) E/M visits related to headaches, (2) the non-face-to-face billing codes defined in Section IV-3-B, and (3) emergency department visits and urgent care center visits for headache.

- Average per-patient spending on headache-related laboratory testing and imaging, using standardized prices for the testing and imaging services. Standardized prices would be used so that the physician is not penalized by differences in prices of services available to patients under their health insurance.

- Average per-patient spending on headache-related medications, using standardized prices for the medications. Standardized prices would be used so that the physician is not penalized by differences in prices of services available to patients under their health insurance.
Performance Measures Related to Care Quality and Outcomes

The Headache Care Team’s performance would be assessed on the following quality and outcome measures:

- Frequency, severity, and disability of headaches, and changes from the patient’s baseline, using a standardized scale such as MIDAS
- % of patients using opioids
- % of patient using barbiturates
- % of patients rating access to providers and experience of care as “excellent”

Exclusions of Patients from Performance Measures

Patients would be excluded from both the numerators and denominators of the performance measures if:

- They failed to adhere to key aspects of the treatment plan; or
- They did not have affordable insurance coverage for their medications.

Assessment of Performance

Performance on the spending/quality/outcomes measures would be determined by comparing the Headache Care Team’s performance to the average performance of all Headache Care Teams receiving the payment during the prior year. As long as the Team’s performance was within reasonable statistical variation around the average, the Team’s performance would be deemed “good performance.” If performance was significantly better than this range, it would be deemed “high performance” and if it was significantly worse, it would be deemed “low performance.”

During the initial years of implementation when there are not sufficient prior year data available on Headache Care Teams’ performance under this payment for comparison purposes, performance on spending would be determined based on comparisons to the average performance on the measures for all headache patients for whom data are available in the prior year.
V. Optional Larger Bundled Payments

The payments described in Sections IV-1 and IV-2 would bundle all headache-related physician services into a single payment for a single month or multi-month period. An optional approach would be to include all or part of the patient’s other headache-related treatment costs in the payment bundle in addition to the physicians’ services. This would provide additional flexibility and an alternative approach to accountability:

- The physician or team of physicians could use the resources available in the larger bundle to pay for services that would not be eligible for payment under the standard fee-for-service payment system.
- The physician(s) would be accountable for ensuring the average of amount of spending for their patients on the services covered by the bundled payments remained within the revenues from those payments.

Since many of the other services covered by the bundled payment would not be delivered directly by the physician practice, the most common way of implementing this type of a bundled payment would be using an administrative process called retrospective reconciliation. The patient’s health plan would pay the other providers who deliver services in the bundle based on current fee-for-service rates, and the health plan would then tabulate the total amount paid on all services during the month and compare that total to the bundled payment amount. If the total payments were less than the bundled payment amount, the balance would be paid to the physician(s) managing the bundled payment; if the total payments were larger than the bundled payment amount, the balance would be paid to the health plan by the physicians managing the bundled payment. In order to avoid the need for repayments, the health plan could “withhold” a portion of the physicians’ payments, and then if the payments on all services exceed the bundled payment amount, the health plan would only repay a portion of the withhold to the physicians.

Option A: Inclusion of Frequently Used Tests and Imaging Studies in the Bundled Payments

Under Option A, the bundled payment would be designed to cover the cost of all frequently-ordered laboratory tests and imaging studies used for diagnosis of headache and for monitoring of headache treatment in addition to physician services. This option would give physicians flexibility about the tests and imaging studies they order but reward them for reducing avoidable overutilization. The bundled payment would only include tests and studies that are frequently ordered by physicians who are diagnosing or treating headache in order to reduce the amount of random variation in spending and make it more likely that small physician practices could participate in this bundled payment option.

Option B: Inclusion of Medication Costs in the Bundled Payments

Under Option B, the bundled payment would be designed to cover the cost of medications used to treat headache in addition to physician services and testing/imaging. Outlier payments or adjustments to the payment amounts would be made when new drug options become available that have significantly higher efficacy but also significantly higher cost, or when drug manufacturers increase prices of drugs.
Option C: Inclusion of All Headache-related Services in the Bundled Payment

Physician practices with the size and capabilities to do so could accept a bundled payment that would be designed to cover the average costs of all headache-related services needed by patients during a month of care. Outlier payments and risk corridors would be established to protect physician practices from financial risk associated with price increases on drugs or hospital services or resulting from patients needing unusually expensive care.

Option D: Population-based Payment for Headache Care

A fourth option would be for a physician practice or group of physician practices to accept a condition-based payment to manage the headache-related care of all individuals with diagnosed headache in a broader pre-defined population, such as all of the patients in an accountable care organization or a health plan’s membership. The physician practice(s) would receive one monthly payment for all of the individuals with headache in that population, regardless of which category/phase of care they were in, but the amount of the payment would be adjusted based on the proportion of patients in different phases of care (i.e., the relative costs of different phases of care would be used to risk-adjust the overall payment amount) and the characteristics of the patients. This monthly payment could be designed to cover all costs of headache-related care for the patients (as Option C would do for a particular phase of care) or for a portion of those costs (as the basic payment model and Options A and B would do for each phase of care).
VI. Setting and Adjusting Payment Amounts

1. Default Payment Amount

A default payment amount would be established for each subcategory of patients. These payment amounts would be defined in advance, similar to a standard fee schedule, so that physicians would know what they would be paid for delivering the services defined in a particular category of care to patients meeting the characteristics for a particular severity stratum within that category.

The payment amounts would be designed to achieve three goals:

- **Provide adequate resources to support the services patients need for high-quality care and good outcomes.** The amount of payment for each subcategory of patients should be adequate to support the time and costs that the physician practice(s) would need to spend for patients with the characteristics associated with the subcategory during the relevant phase of patient care.

- **Avoid losses of revenue to high-quality, efficient practices.** The aggregate amount of net revenue that a high-quality, efficient physician practice would receive under the new payment system from a participating payer should be no less than the aggregate amount of revenue that the practice would have received from that payer under the current payment system. There may be some shift in revenues from one subcategory of patients to another if the current payment system provides higher payments relative to costs in one subcategory than another.

- **Budget neutrality/savings/slower spending trend for payers.** The total spending by the payer on headache care for the patients in all participating physician practices, considering both what is paid to the practices and what is paid for other costs of headache care to the practices’ patients (e.g., laboratory testing, imaging, emergency room visits, hospitalizations, drugs, etc.) should be no greater than what would be projected under the current payment system, and ideally represent lower spending than would have otherwise been expected.

It is important to recognize that the payments received by a physician practice under Patient-centered Headache Care Payment would differ from payments under the current payment system in two important ways:

1. The total net revenue the **physician practice** receives could be **greater** than under the current system, at the same time that **total spending on headache care** by payers is **lower** than under the current system. This is because the net revenue to the practice represents only a small proportion of the total spending on headache care for its patients, and so the savings from reductions in avoidable emergency room use and hospitalizations, reductions in unnecessary testing, etc. could more than offset higher payments to the physician practices.

2. The total payment that a physician practice receives for any **individual patient** would inherently differ from what it would have received under the current payment system, since Patient-centered Headache Care Payment is designed to give practices more predictable and flexible payments for patients. The payment levels would be set such that the total amount of the payments averaged across all of a practice’s patients would be similar to what they are today during the initial year of implementation. However, over time, practices would likely
redesign care in more patient-centered ways without the fear that revenues would decline under the less flexible payment system used today.

2. Adjustment of Payment Based on Performance

The physician or team of physicians participating in the Patient-centered Headache Care Payment would receive the default payment level as long as their performance during the most recent measurement period was “good” on all measures. The payment would be increased if all measures were “good” and some were “high,” and the payment would be reduced if some measures were “low.” The maximum increases and decreases would initially be ±4% and then would increase over time to ±9%.
VII. Method of Billing and Payment

For the bundled payments described in Section IV-1 and IV-2, a physician or team of physicians serving as a patient’s Headache Care Team would submit a claim to the patient’s health insurance plan (or a bill to the patient, if the patient has no insurance) using one of the “condition based payment codes” described in Sections IV-1-C and IV-2-C that matches the patient’s phase of care and the patient’s risk/acuity characteristics. The claim with this code could be billed to the payer using the physician practice’s existing billing system and the claim could be paid by the payer using its existing claims payment system, similar to what is done today with claims forms billed using CPT codes. The payer would reject any claims for E/M services to the patient that are submitted by the physician practices on the Headache Care Team.

Submission of the claim would represent a certification by the physician that:

- The patient has characteristics that qualify them for the particular subcategory associated with the condition-based payment code that is shown on the claim form
- The physician or another member of the Headache Care Team is meeting any minimum standards for services and delivering all appropriate services for the phase of care and the characteristics of the patient associated with the condition-based payment code that is shown on the claim form
- The physician and the other members of the Headache Care Team will accept the payment associated with that payment code as payment in full for all of the types of headache-related services covered by the payment bundle during the time period defined by the payment

For the payments described in Section IV-3, the physician practice(s) would submit claims when the services defined there were delivered.

The payer receiving the claim will determine the standard payment amount for the code on the claim form that is specified in the contract between the payer and that physician practice, and it will adjust the payment by the performance adjustment factor for that practice that is determined using the methodology described earlier. In general, the performance adjustment factor would be established on an annual basis based on the practice’s performance in the prior year. Larger practices could potentially have their performance adjustment factors updated more frequently (e.g., semiannually or quarterly), whereas small practices could have their performance measured over a longer period of time (e.g., two years) in order to have more reliable measures with smaller numbers of patients.

If two or more physician practices are working together as a Headache Care Team to manage patient care (e.g., a primary care practice and a neurology practice), then the two practices would be permitted to determine how the bundled Patient-centered Headache Care Payments defined in Sections IV-1 and IV-2 would be divided between them. The practices could either agree that one practice will receive the payments and then make the allocations to the other practice(s), or the practices could form a separate corporate entity (e.g., a limited liability company) controlled by the participating practices and the payer would make the payments to that entity. (This entity could serve as an “alternative payment entity” under MACRA.)
If the code is submitted as part of a payment arrangement that involves a larger bundle of services such as Options A-C described in Section V, then the payer would deduct any relevant payments it made to other providers from the bundled payment amount and pay the balance to the Headache Care Team.
### VIII. Summaries of Categories

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<th>Diagnosis and Initial Treatment</th>
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<tr>
<td>Patient Characteristics</td>
<td>Not doing well (See 2-A)</td>
<td>Primary HA disorder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fewer than 10 HA days/month and responsive to treatment Or Secondary HA disorder</td>
</tr>
<tr>
<td>Payment</td>
<td>Three levels of single payment to cover three months E/M services for HA, each level based on Patient Characteristics (See section 1-C)</td>
<td>Five levels of monthly payments to replace E/M services for HA, each level based on Patient Characteristics (See section 2-C)</td>
</tr>
</tbody>
</table>

#### Payment covers
- Diagnosis of HA type
- Shared decision making with patient.
- Treatment plan
- Supervision of treatment plan
- Supervision of treatment
- Evaluation of frequency and severity
- Changes in meds and side-effects
- Revisions in treatment plan
- Education and supervision or meds for HA
- Documentation of visit or communication

#### Not covered
- Lab and imaging
- Lab and imaging
- Lab and imaging

#### Required Documented Quality Standards
- Face-to-face visit
- HA frequency, severity and disability
- Diagnosis
- Use or non-use of AAN and/or HIS/AHS guidelines for testing and diagnosis and initial treatment
- Shared decision-making with patient
- Face-to-face visit
- HA frequency, severity and disability
- Diagnosis
- Use or non-use of AAN and/or HIS/AHS guidelines for diagnosis and treatment
- Shared decision-making with patient
- HA frequency, severity and disability
- Diagnosis
- Use or non-use of AAN and/or HIS/AHS guidelines for diagnosis and treatment
- Shared decision-making with patient

#### Utilization and Spending Measures (all averages/patient for HA only)
- Labs and imaging
- Medication
- ED visits
- Admissions
- Total E/M visits
- Non-face-to-face visits
- Medication
- ED and UC visits
- Lab and imaging

#### Quality and Outcome Measures
- Changes from baseline in frequency, severity and disability (MIDAS or other)
- Opioid use
- Barbiturate use
- Rating on access to care
- Rating on experience of care
- Changes from baseline in frequency, severity and disability (MIDAS or other)
- Opioid use
- Barbiturate use
- Rating on access to care
- Rating on experience of care
- Changes from baseline in frequency, severity and disability (MIDAS or other)
- Opioid use
- Barbiturate use
- Rating on access to care
- Rating on experience of care

#### Performance Measure Exclusions
- Failure to adhere to key aspects of treatment plan
- Not have affordable insurance to cover meds
- Failure to adhere to key aspects of treatment plan
- Not have affordable insurance to cover meds
- Failure to adhere to key aspects of treatment plan
- Not have affordable insurance to cover meds
## IX. Clinical Examples

### Diagnosis and Initial Treatment

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Clinical Examples</th>
</tr>
</thead>
</table>
| Level 1 | 1–2 headache days per month OR 3+ headache days per month if the diagnosis is a secondary headache disorder | 21 y.o. female with 2 throbbing HA per month; sometimes relieved with ibuprofen or acetaminophen/aspirin/caffeine. Has never been on triptans or other specific migraine medication.  
60 y.o. male with long hx of “Tension Headaches.” The headaches are throbbing and sometimes associated with nausea and photophobia. Ibuprofen occasionally lessens symptoms. Now has more severe headaches and neck pain following a motor vehicle accident. Headaches are now disabling and require bed rest. |
| Level 2 | 3–14 headache days per month OR 1 or more severe/disabling headache days per month | 26 y.o. male with 1 HA per month with photophobia and nausea lasting 3 hours, during which he is confined to bed  
35 y.o. female with 2–3 HA days per week with symptoms lasting 2–4 hours. Headaches sometimes relieved by triptans and/or OTCs. Headaches now causing dysfunction and/or disability. Has never been on prophylactic medication therapy.  
An established patient with migraine having frequent, intermittent, and moderate to severe headaches with nausea and vomiting. The headaches are usually controlled with triptans and antiemetic medication. The headaches have increased in frequency and severity and are less responsive to abortive therapy. Now occasionally requires visit to the Emergency Department.  
32 y.o. woman with 1-3 migraine per month characterized by disability, nausea and vomiting and photophobia. The headaches are more common during the menstrual cycle. Non menstrual related headaches sometimes preceded by visual aura with scintillating scatomas and peripheral field loss. |
| Level 3 | 15+ headache days per month OR 1 or more severe/disabling headache days per month and significant comorbidities OR 3–14 headache days per month and significant comorbidities OR Other complex headache disorders such as chronic daily headaches with medication overuse, hemiplegic migraine, basilar migraine, etc. | 45 y.o. female with hx of depression, anxiety, opioid use, hypertension has HA most days, all day, taking acetaminophen four times/day, sumatriptan daily  
50 y.o. female with HA most days lasting 2–4 hours, relieved by acetaminophen, which she takes 3 times per day and sumatriptan, which she takes 3 times per week  
33 y.o. woman with moderate to severe headaches occurring 4 or more days a week. Headaches are poorly responsive to therapy. Current prophylactic medication, as well as triptans and other abortive medications do not completely relieve symptoms. Headaches beginning to interfere with work performance and family life.  
45 y.o. female with history of depression, anxiety, and chronic daily headaches. Has now begun to use opioids 3 or 4 days a week. PMH of hypertension and fibromyalgia. Has used daily acetaminophen/aspirin/caffeine and/or ibuprofen for several years. Had used “all the triptans” |
without benefit. Different prophylactic medications were prescribed without benefit.

50 y.o. female with Chronic Daily Headaches (CDH) for several years. Headaches last all day and interfere with daily activities. Has been taking daily OTCs, usually acetaminophen/aspirin/caffeine or ibuprofen, 2 or 3 times a day for several years. Never sought medical care. Thought the “Tension Headaches” were just related to “stress.” CDHs are now associated with dysfunction and disability.

33 y.o. woman with documented Hemiplegic Migraine. Family history of Hemiplegic Migraine. Choice of appropriate abortive and prophylactic therapy with careful management and monitoring of the clinical syndrome to prevent any potential complication secondary to Hemiplegic Migraine.

### Continuing Care – Difficult to Control

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Clinical Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>10+ headache days per month with adequate response to symptomatic/abortive therapy, and no significant comorbidities requiring coordination of treatment</td>
<td>35 y.o. presented 3 months ago with CDH, weaned off of daily symptomatic OTC meds, started on amitriptyline, and introduced life-style modifications with modest improvement. Plan to wean off of amitriptyline and add topiramate.</td>
</tr>
<tr>
<td>Level 2</td>
<td>3–14 headache days per month with poor response to symptomatic/abortive therapy OR 1–2 severe/disabling headache days per month with poor response to symptomatic/abortive therapy OR 3+ headache days per month with adequate response to symptomatic/abortive therapy but significant comorbidities affecting treatment</td>
<td>28 y.o. female did not tolerate propranolol, started on topiramate, but still with 1 day in bed per week with throbbing HA, nausea and vomiting 50 y.o. male with severe, excruciating, unilateral, orbital and supraorbital pain lasting 15 minutes to 3 hours, occurring 3 or 4 times a day. Associated symptoms include lacrimation, nasal congestion, rhinorrhea, and conjunctival injection, restlessness and pacing. Oral triptans and analgesics have not relieved the pain. 47 y.o. man with history of recent MI, currently stable. Prior history of migraine with excellent response to triptans. Now having recurrent migraine with 2–3 headaches per month with disability. Treatment of new onset migraine preferably without the use of vasoactive medications.</td>
</tr>
<tr>
<td>Level 3</td>
<td>15+ headache days per month with poor response to symptomatic/abortive therapy OR 3+ severe/disabling headache days per month with poor response to symptomatic/abortive treatment</td>
<td>45 y.o. female with CDH, unable to work because of the headaches. Currently on therapeutic doses of topiramate. Has been on multiple prophylactic and abortive medications without benefit.</td>
</tr>
<tr>
<td>Level 4</td>
<td>Intractable migraine or status migraine requiring intravenous or injected medication treatment during the month</td>
<td>42 y.o. male with hx of classic migraine, does not tolerate triptans, has 1–2 severe headaches per month lasting 12–18 hours associated with prolonged nausea and vomiting. 50 y.o. male with PMH of classic Episodic Migraine. Did not tolerate triptans. Developed CDH for several years with daily use of analgesics. Had been prescribed butalbital which he has been using 4–6 per day for at least 3 years. Uses acetaminophen/hydrocodone at least 4 days a week for the “more severe headaches.” Questionable history of non-medication drug use.</td>
</tr>
</tbody>
</table>
abuse in the past. Family reports personality change with aggressive behavior. Requires complete multidisciplinary evaluation to include Internal Medicine, Neurology and Psychiatry and monitoring within a hospital environment as undergoes barbiturate and narcotic drug withdrawal.

33 y.o. woman with PMH of Episodic Migraine; usually responsive to triptans. Developed severe, persistent migraine with intractable vomiting lasting 4 days. Had gone to the Emergency Department past 4 days and received IV analgesics and prochlorperazine with transient benefit. Patient becoming dehydrated from vomiting. Diagnosis: Status Migrainous. Patient requires rehydration and intravenous pharmacotherapy with specific migraine medication and concurrent alternative IV antiemetic medication to control vomiting.

50 y.o. overweight female with long hx of CDH, diffuse muscle pain, fatigue taking ibuprofen 3x/day, sumatriptan 2 x/day, and acetaminophen/butalbital/caffeine 3x/day

30 y.o. male, aura of right sided-weakness and word confusion lasting 20 minutes followed by HA, similar to description of father’s own episodes.

50 y.o. extremely obese female with many year history of CDH, epilepsy, and depression. On valproate for both CDH and epilepsy and paroxetine for depression. Has been taking sumatriptan 100 mg. tablets 2–3 times a day for past year. Last seizure a year ago. New onset of symptoms include altered mental status, tachycardia, tremor, diaphoresis and hypertension. Evaluation to rule out Serotonin Syndrome, Medication Overuse Headaches secondary to triptan overuse, and to evaluate alternatives to valproate and paroxetine.

### Continuing Care – Well Controlled

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Clinical Examples</th>
</tr>
</thead>
</table>
| Level 1 | A telephone or email response to questions or concerns raised by patients about a change in the frequency, severity, or disability of their headaches, about side effects from their headache medication, about the appropriate use of their headache medications, or about other headache-related issues | 35 y.o. female on topiramate, heard that can cause weight loss and wants more information.  
43 y.o. female usually with 2 migraines/month, responsive to sumatriptan, noted 4 last month. |
| Level 2 | A telephone or email communication with another physician on the Headache Care Team to determine the most appropriate response to issues regarding a patient’s treatment for headaches | Internist called regarding increasing amitriptyline as patient with now with slight increase in HA frequency.  
Psychiatrist emailed regarding patient with hx of migraines and depression, who has been doing well, as wishes to add an SSRI.  
Call from ED as patient there with severe HA, first bad one in 8 months. |
Acknowledgements

The AAN wishes to acknowledge the work of the following individuals who contributed to the development of this document:

Harold D. Miller, Center for Healthcare Quality and Payment Reform

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