NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Health and social care directorate

Quality standards and indicators

Briefing paper

Quality standard topic: Headaches in young people and adults

Output: Prioritised quality improvement areas for development.

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Contents

1 Introduction

This briefing paper presents a structured overview of potential quality improvement areas for headache. It provides the Committee with a basis for discussion and prioritising quality improvement areas for developing quality statements and measures, which will be drafted for public consultation.

Structure

The structure of this briefing paper includes a brief overview of the topic followed by a summary of each of the suggested quality improvement areas followed with supporting information.

Where relevant, guideline recommendations selected from the key development source below are presented to aid the Committee when considering specific aspects for which statements and measures should be considered.

Development source

Unless otherwise stated, the key development source referenced in this briefing paper is as follows:

> Headaches: Diagnosis and management of headaches in young people and adults. NICE clinical guideline 150 (2012).

Where relevant, guideline recommendations from the key development source are presented alongside each of the suggested areas for quality improvement within the main body of the report.

2 Overview[1]

2.1 Focus of quality standard

This quality standard will cover the diagnosis and management of common headaches in adults and young people aged 12 years and over.

2.2 Definition

Headache disorders are classified as primary or secondary. The aetiology of primary headaches is not well understood and they are classified according to their clinical pattern. The most common primary headache disorders are tension-type headache, migraine and cluster headache. Secondary headaches are attributed to underlying

[1] Sections 2.1 to 2.4 are taken from Headaches: Diagnosis and management of headaches in young people and adults. NICE Clinical Guideline 150. September 2012.

disorders and include, for example, headaches associated with medication overuse, giant cell arteritis, raised intracranial pressure and infection. Medication overuse headache most commonly occurs in those taking medication for a primary headache disorder. The major health and social burden of headaches is caused by primary headache disorders and medication overuse headache.

2.3 Incidence and prevalence

Headaches are one of the most common neurological problems presented to GPs and neurologists. Local primary care trust reports indicate that headache accounts for 4% of primary care consultations and up to 30% of neurology out-patient appointments.

Headache disorders are a cause of pain and disability. They also have a substantial societal burden. Migraine, for example, occurs in 15% of the UK adult population, and more than 100,000 people are absent from work or school as a result of migraine every working day. Cluster headaches are less common affecting, perhaps, 1% of the population at some time in their life. Bouts of cluster headaches can be extremely disabling.

Although primary headaches can affect people of any age their main impact is in young adults many of whom have both work and family commitments that are affected by their headaches. The impact is not just during a headache but the uncertain anticipation of a headache can cause a significant burden between attacks.

2.4 Management

Many people with headache do not have an accurate diagnosis of headache type. Healthcare professionals can find making a diagnosis of headache difficult, and both people with headache and their healthcare professionals can be concerned about possible underlying causes. People with headache alone are unlikely to have a serious underlying disease.

Some GPs may lack confidence in their ability to diagnose common headache disorders. Most common headache types can be diagnosed on clinical history and can be managed in primary care. If specialist advice is needed on headache diagnosis and management this can be provided by a neurologist with an interest in headache or a GP with a special interest (GPwSI) in headaches, or for young people under 18 years of age; a general hospital or community based paediatrician or paediatric neurologist.

Improved recognition of primary headaches will help the generalist clinician to manage headaches more effectively, allow better targeting of treatment and potentially improve quality of life and reduce unnecessary investigations for people

with headache with the potential to substantially reduce the population burden of headache without needing substantial additional resources.

See appendix 2 for key priority for implementation recommendations from NICE clinical guideline 150.

2.5 National Outcome Frameworks

The table below shows the indicators from the NHS outcomes framework that the quality standard could contribute to:

Domain 2: Enhancing quality of life for people with long term conditions	2 Health-related quality of life for people with long-term conditions 2.1 Proportion of people feeling supported to manage their condition
Domain 4: Ensuring people have a positive experience of care.	4a Patient experience of primary care (i) GP services

3 Summary of suggestions

3.1 Responses

In total eleven stakeholders responded to the 2-week engagement exercise (09/11/12 – 23/11/12), ten of which submitted suggestions for quality improvement.

Table 1 Summary of suggested quality improvement areas

Stakeholders were asked to suggest up to 5 areas for quality improvement. These have been merged and summarised in the table below for further consideration by the Committee.

The full detail of the suggestions is provided in appendix 3 for information.

Suggested area for improvement	**Stakeholder (see table 2 for abbreviations)**
Assessment for other causes • Assessment to exclude other causes of headache • Identification of comorbid mood disorders	AH, MA, RCGP, RCPCH, PSF
Diagnosis • Diagnosis of primary headaches • Diagnosis of medication overuse headaches	ABN, Allergan, BASH, MA, MT, RCGP, RCP[2], RCPCH, PSF
Information and support • Information • Patient education programmes • Guidance for employers	ABN, AH, MA, MT, RCP
Imaging	ABN, RCP, RCPCH, STH
Prophylactic treatment • Appropriate prophylactic treatment • Monitoring of prophylactic treatment • Recognition of headache triggers	ABN, BASH, MA, RCP
Acute treatment	ABN, BASH, RCP
Management of medication overuse headache	ABN, AH, RCP
Specialist referral	ABN, AH, MA, RCP

[2] The Royal College of Physicians wished to endorse the comments submitted by the Association of British Neurologists

Table 2 Stakeholder details (abbreviations)

The details of stakeholder organisations who submitted suggestions are provided in the table below.

Abbreviation	Full name
ABN	Association of British Neurologists
AH	Addenbrooke's Hospital
Allergan	Allergan
BASH	British Association for the Study of Headaches
MA	Migraine Action
MT	The Migraine Trust
RCGP	Royal College of General Practitioners
RCP	Royal College of Physicians
RCPCH	Royal College of Paediatrics and Child Health
STH	Sheffield Teaching Hospitals NHS Foundation Trust
PSF	NHS commissioning board patient safety function

4 Suggested improvement area: Assessment for other causes

4.1 Summary of suggestions

Stakeholders highlighted the need to exclude serious pathology, for example brain tumours, which is a DH priority. There were also concerns raised about people attributing their headache to other causes, for example sinus infection, TMJ (temporomandibular jaw dysfunction) and dental problems.

Stakeholders suggested early identification of comorbid mood disorders with appropriate access to psychological support and treatment in all headache conditions but especially migraine. Stakeholders reported the prevalence of depression is increased in people with migraine and is associated with conversion from the episodic to the chronic state.

The following specific areas for quality improvement and potential development by the QSAC were highlighted:

- Assessment to exclude other causes
- Identification of comorbid mood disorders

4.2 Selected recommendations from development source

Recommendations from the development source relating to the suggested improvement area have been provisionally selected and are presented below to inform QSAC discussion.

Assessment to exclude other causes

NICE CG 150 - Recommendation 1.1.1

> Evaluate people who present with headache and any of the following features, and consider the need for further investigations and/or referral
>
> - worsening headache with fever
> - sudden-onset headache reaching maximum intensity within 5 minutes
> - new-onset neurological deficit
> - new-onset cognitive dysfunction
> - change in personality

- impaired level of consciousness
- recent (typically within the past 3 months) head trauma
- headache triggered by cough, valsalva (trying to breathe out with nose and mouth blocked) or sneeze
- headache triggered by exercise
- orthostatic headache (headache that changes with posture)
- symptoms suggestive of giant cell arteritis
- symptoms and signs of acute narrow-angle glaucoma
- a substantial change in the characteristics of their headache.

NICE CG 150 - Recommendation 1.1.2

Consider further investigations and/or referral for people who present with new-onset headache and any of the following features:

- compromised immunity, caused, for example, by HIV or immunosuppressive drugs
- age under 20 years and a history of malignancy
- a history of malignancy known to metastasise to the brain
- vomiting without other obvious cause

Identification of comorbid mood disorders

Identification of comorbid mood disorders is not directly covered in NICE clinical guideline 150 and no recommendations are presented relating to the suggested quality improvement area.

4.3 Current UK practice

As part of the engagement process assessment to exclude other causes was also highlighted as a potential safety consideration by the NHS commissioning board patient safety function (see separate patient safety report which outlines relevant patient safety issues for headaches in young people and adults).

Stakeholders drew attention to NICE clinical guideline 150: The diagnosis and management of headaches in young people and adults. No published studies on current practice were highlighted for this suggested area for quality improvement.

5 Suggested improvement area: Diagnosis

5.1 Summary of suggestions

Stakeholders reported many people with headache do not receive an accurate diagnosis. Migraine is the commonest cause of headache affecting 3% of the general population and often an overlooked diagnosis.

Stakeholders reported cluster headaches are poorly diagnosed even by a general neurologist and hence poorly managed. This leads to people receiving numerous consultations in the hope of receiving help. A diagnosis of the underlying headache type should be made to ensure appropriate acute and preventative treatment is given and people with headache are offered appropriate management. It is also important to make an accurate diagnosis to determine which people would benefit from a referral to specialist care e.g. GP with special interest.

Stakeholders highlighted medication overuse headache (MOH) is a major public health problem and cause of great indirect and direct health morbidity. 2% of the British population suffer from medication overuse headaches. Stakeholder report this is mainly due to over- the- counter availability of some of the weak opiates and other simple painkillers as well as lack of control in prescribing painkillers. In addition it is potentially treatable and there is a high lack of awareness of the condition that can be easily treated without significant cost. More education in primary care and the wider general public would help reduce its incidence and there will be increased awareness for the problem to be handled correctly.

The following specific areas for quality improvement and potential development by the QSAC were highlighted:

- Diagnosis of tension-type headache, migraine (with or without aura) and cluster headache
- Diagnosis of medication overuse headache

5.2 Selected recommendations from development source

Recommendations from the development source relating to the suggested improvement areas have been provisionally selected and are presented below to inform QSAC discussion.

Diagnosis of tension-type headache, migraine (with or without aura) and cluster headache

NICE CG 150 - Recommendation 1.2.1 (KPI)

> Diagnose tension-type headache, migraine or cluster headache according to the headache features in the table (see appendix 1).

NICE CG 150 - Recommendation 1.2.2

> Suspect aura in people who present with or without headache and with neurological symptoms that:
>
> - are fully reversible **and**
> - develop gradually, either alone or in succession, over at least 5 minutes **and**
> - last for 5–60 minutes.

NICE CG 150 - Recommendation 1.2.3

> Diagnose migraine with aura in people who present with or without headache and with one or more of the following typical aura symptoms that meet the criteria in recommendation 1.2.2:
>
> - visual symptoms that may be positive (for example, flickering lights, spots or lines) and/or negative (for example, partial loss of vision)
> - sensory symptoms that may be positive (for example, pins and needles) and/or negative (for example, numbness)
> - speech disturbance

Diagnosis of medication overuse headache

NICE CG 150 - Recommendation 1.2.7 (KPI)

> Be alert to the possibility of medication overuse headache in people whose headache developed or worsened while they were taking the following drugs for 3 months or more:
>
> - triptans, opioids, ergots or combination analgesic medications on 10 days per month or more **or**
> - paracetamol, aspirin or an NSAID, either alone or in any combination, on 15 days per month or more.

5.3 Current UK practice

Stakeholders highlighted 95% of headache consultations present to primary care; hence the setting offers an important opportunity to reduce the burden of headache in the UK[3]. However stakeholders reported only 30% of headache presentations in primary care reach a final diagnosis[4]. They also reported only 20% patients with chronic migraine receive the right diagnosis, a large number of these patients develop MOH but cited no reference.

Stakeholders highlighted only 50% of people with migraines have ever seen a doctor about their condition and of those the minority are under continuing care. The majority self medicate and this can gradually escalate into medication overuse[5]. Stakeholders reported 2% of the British population suffer from medication overuse headaches but cited no reference.

As part of the engagement process diagnosis of headache was also highlighted as a potential safety consideration by the NHS commissioning board patient safety function (see separate patient safety report which outlines relevant patient safety issues for headaches in young people and adults).

No published studies on current practice were highlighted for this suggested area for quality improvement.

[3] Report of All-Party Parliamentary Group on Primary Headache disorders. House of Commons, London, 2010.
[4] Kernick D, Stapley S, Hamilton W. GPs classification of headache: is primary headache under diagnosed? British Journal General Practice 2008;58:102-104.
[5] Report of All-Party Parliamentary Group on Primary Headache disorders. House of Commons, London, 2010.

6 Suggested improvement area: Information and support

6.1 Summary of suggestions

Stakeholders reported that people with headache should have the information they need to make informed decisions about their care and treatment and, where appropriate, to support them to manage their condition themselves. People with headache conditions are often young when diagnosed and will need to manage their condition over decades of their lives. Without the information that they require, people with headache conditions can become demoralised.

Stakeholders suggested the development of patient education programmes which are not widely available even in specialist centres in the UK.

Stakeholders suggested the introduction of guidance for employers on how to accommodate individuals with headache which would allow individuals to continue in the work place rather than take alternative long term sick leave/ medical retirement.

The following specific areas for quality improvement and potential development by the QSAC were highlighted:

- Information
- Support including patient education programmes
- Guidance for employers

6.2 Selected recommendations from development source

Recommendations from the development source relating to the suggested improvement areas have been provisionally selected and are presented below to inform QSAC discussion.

Information

In general, quality statements on information are not included in individual NICE quality standards, as there is a full NICE quality standard on patient experience. This includes the sharing and discussion of information throughout the patient pathway. However, we have presented the recommendations below for completeness.

NICE CG 150 - Recommendation 1.3.4 (KPI)

Include the following in discussions with the person with a headache disorder:

- a positive diagnosis, including an explanation of the diagnosis and reassurance that other pathology has been excluded **and**
- the options for management **and**
- recognition that headache is a valid medical disorder that can have a significant impact on the person and their family or carers.

NICE CG 150 - Recommendation 1.3.5

> Give the person written and oral information about headache disorders, including information about support organisations.

NICE CG 150 - Recommendation 1.3.6

> Explain the risk of medication overuse headache to people who are using acute treatments for their headache disorder.

Patient education programmes

Patient education programmes is not directly covered in NICE clinical guideline 150 and no recommendations are presented relating to the suggested quality improvement area.

Guidance for employers

Guidance for employers is not directly covered in NICE clinical guideline 150 and no recommendations are presented relating to the suggested quality improvement area.

6.3 Current UK practice

Stakeholders drew attention to NICE clinical guideline 150: The diagnosis and management of headaches in young people and adults and the Department of Health National Service Framework for long term conditions. No published studies on current practice were highlighted for this suggested area for quality improvement.

7 Suggested improvement area: Imaging

7.1 Summary of suggestions

Stakeholders noted primary headaches do not need hospital admission or imaging. Stakeholders report it is too easy when concerned about the impact of disabling headache to do a scan, overlooking the evidence based management in primary care.

7.2 Selected recommendations from development source

NICE clinical guideline 150 recommends imaging solely for reassurance is **not** carried out.

NICE CG 150 - Recommendation 1.3.3 (KPI)

> Do not refer people diagnosed with tension-type headache, migraine, cluster headache or medication overuse headache for neuroimaging solely for reassurance.

7.3 Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

8 Suggested improvement area: Prophylactic treatment

8.1 Summary of suggestions

Stakeholders reported getting prophylaxis right can change the quality of life for people with headaches, reducing the frequency and severity of attacks.

Stakeholders suggested improvements in the awareness of stopping, starting and monitoring processes for prescribed medications in migraine and especially cluster headaches are needed. Stakeholders reported most non-specialists fail to set appropriate goals for drug prophylaxis of migraine with insufficient dose and durations of treatment. The current monitoring of the potentially serious side-effects in cluster headache is haphazard, un-coordinated and does not clearly delegate appropriate role responsibilities e.g. cardiac ECG monitoring on high dose verapamil etc. Some patients remain on long term preventative medication that may not be needed. Cluster headache patients currently receive prescribed drugs with specific toxicity and safety concerns that need longer term monitoring as long as they remain on treatment.

Stakeholders suggested it was important for people with headache to be able to recognise their stress triggers to enable them to develop ways of dealing with them. This could be through counselling, relaxation techniques or biofeedback.

The following specific areas for quality improvement and potential development by the QSAC were highlighted:

- Appropriate prophylactic treatment
- Monitoring of prophylactic treatment
- Recognition of headache triggers

8.2 Selected recommendations from development source

Recommendations from the development source relating to the suggested improvement areas have been provisionally selected and are presented below to inform QSAC discussion.

Appropriate prophylactic treatment

Prophylactic treatment for tension-type headache

NICE CG 150 – Recommendation 1.3.9

Consider a course of up to 10 sessions of acupuncture over 5-8 weeks for the prophylactic treatment of tension-type headaches.

Prophylactic treatment for migraine with or without aura

NICE CG 150 – Recommendation 1.3.17 (KPI)

Offer topiramate or propanolol treatment of migraine according to the person's preference, comorbidities and risk of adverse events. Advise women and girls of childbearing potential that topiramate is associated with a risk of fetal malformations and can impair the effectiveness of hormonal contraceptives. Ensure they are offered suitable contraception.

NICE CG 150 – Recommendation 1.3.18

If both topiramate and propanolol are unsuitable or ineffective, consider a course of up to 10 sessions of acupuncture over 5-8 weeks or gabapentin (up to 1200 mg per day) according to the person's preferences, comorbidities and risk of adverse events.

NICE CG 150 – Recommendation 1.3.19

For people who are already having treatment with another form of prophylaxis such as amitriptyline, and whose migraine is well controlled, continue the current treatment as required.

NICE CG 150 – Recommendation 1.3.21

Advise people with migraine that riboflavin (400 mg once a day) may be effective in reducing migraine frequency and intensity for some people.

Prophylactic treatment for cluster headache

NICE CG 150 – Recommendation 1.3.31

Consider verapamil for prophylactic treatment during bout of cluster headache. If unfamiliar with its use for cluster headache, seek specialist advice before starting verapamil, including advice on electrocardiogram monitoring.

Monitoring of prophylactic treatment

NICE CG 150 – Recommendation 1.3.20

Review the need for continuing migraine prophylaxis 6 months after the start of prophylactic treatment.

Recognition of headache triggers

Recognition of headache triggers is not directly covered in NICE clinical guideline 150 and no recommendations are presented relating to the suggested quality improvement area.

8.3 Current UK practice

Stakeholders reported only half of people who need prophylaxis are actually on preventative treatment. Those on preventative treatment may not receive the most appropriate medication and there is a lack of robust control to check compliance which is only seen in 20% of patients.

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

9 Suggested improvement area: Acute treatment

9.1 Summary of suggestions

The suggested area for quality improvement is the use of acute treatment for tension- type headache, migraine and cluster headache.

Stakeholders reported too many people take the wrong drug at the wrong time. If they were to take the right dose of the right drug at the right time pain could be abolished within 2 hours.

Stakeholders reported too many people suffer unnecessarily from late or incorrect medication.

No further specific areas for quality improvement and potential development by the QSAC were highlighted.

9.2 Selected recommendations from development source

Recommendations from the development source relating to the suggested improvement area have been provisionally selected and are presented below to inform QSAC discussion.

Acute treatment for tension-type headache

NICE CG 150 - Recommendation 1.3.7

> Consider aspirin, paracetamol or an NSAID for the acute treatment of tension-type headache, taking into account the person's preference, comorbidities and risk of adverse events

NICE CG 150 - Recommendation 1.3.8

> Do not offer opioids for the acute treatment of tension-type headache.

Acute treatment for migraine with or without aura

NICE CG 150 - Recommendation 1.3.10 (KPI)

> Offer combination therapy with an oral triptan and an NSAID, or an oral triptan and paracetamol, for the acute treatment of migraine, taking into account the person's preference, comorbidities and risk of adverse events. For young people aged 12–17 years consider a nasal triptan in preference to an oral triptan.

NICE CG 150 - Recommendation 1.3.11

For people who prefer to take only one drug, consider monotherapy with an oral triptan, NSAID, aspirin (900 mg) or paracetamol for the acute treatment of migraine, taking into account the person's preference, comorbidities and risk of adverse events.

NICE CG 150 - Recommendation 1.3.12

When prescribing a triptan start with the one that has the lowest acquisition cost; if this is consistently ineffective, try one or more alternative triptans.

NICE CG 150 - Recommendation 1.3.13

Consider an anti-emetic in addition to other acute treatment for migraine even in the absence of nausea and vomiting.

NICE CG 150 - Recommendation 1.3.14

Do not offer ergots or opioids for the acute treatment of migraine.

NICE CG 150 - Recommendation 1.3.15 (KPI)

For people in whom oral preparations (or nasal preparations in young people aged 12–17 years) for the acute treatment of migraine are ineffective or not tolerated:

- offer a non-oral preparation of metoclopramide or prochlorperazine **and**
- consider adding a non-oral NSAID or triptan if these have not been tried.

Acute treatment for cluster headache

NICE CG 150 - Recommendation 1.3.27 (KPI)

Offer oxygen and/or a subcutaneous or nasal triptan for the acute treatment of cluster headache.

NICE CG 150 - Recommendation 1.3.28 (KPI)

When using oxygen for the acute treatment of cluster headache:

- use 100% oxygen at a flow rate of at least 12 litres per minute with a nonrebreathing mask and a reservoir bag **and**
- arrange provision of home and ambulatory oxygen.

NICE CG 150 - Recommendation 1.3.29 (KPI)

> When using a subcutaneous or nasal triptan, ensure the person is offered an adequate supply of triptans calculated according to their history of clusterbouts, based on the manufacturer's maximum daily dose.

NICE CG 150 - Recommendation 1.3.30

> Do not offer paracetamol, NSAIDS, opioids, ergots or oral triptans for the acute treatment of cluster headache.

9.3 Current UK practice

Stakeholders reported patients with acute cluster headaches rarely receive oxygen, the most effective treatment and are often denied injectable triptan due to the cost.

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

10 Suggested improvement area: Management of medication overuse headache

10.1 Summary of suggestions

Stakeholders reported there needs to be improvement in the delivery of support for people who have problems with analgesic withdrawal symptoms. This would likely increase the success of analgesic medication overuse headache resolution and reduce the direct and indirect healthcare prescribing costs in primary care.

No further specific areas for quality improvement and potential development by the QSAC were highlighted.

10.2 Selected recommendations from development source

Recommendations from the development source relating to the suggested improvement area have been provisionally selected and are presented below to inform QSAC discussion.

NICE CG 150 - Recommendation 1.3.34

> Explain to people with medication overuse headache that it is treated by withdrawing overused medication.

NICE CG 150 - Recommendation 1.3.35

> Advise people to stop taking all overused acute headache medications for at least 1 month and to stop abruptly rather than gradually.

NICE CG 150 - Recommendation 1.3.36

> Advise people that headache symptoms are likely to get worse in the short term before they improve and that there may be associated withdrawal symptoms, and provide them with close follow-up and support according to their needs.

NICE CG 150 - Recommendation 1.3.39

> Consider specialist referral and/or inpatient withdrawal of overused medication for people who are using strong opioids, or have relevant comorbidities, or in whom previous repeated attempts at withdrawal of overused medication have been unsuccessful.

NICE CG 150 - Recommendation 1.3.40

> Review the diagnosis of medication overuse headache and further management 4–8 weeks after the start of withdrawal of overused medication.

10.3 Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

11 Suggested improvement area: Specialist referral

11.1 Summary of suggestions

Stakeholders suggested referral to a specialist if headaches become more frequent despite treatment and different approaches or not responding to first line therapy. For children, a paediatric neurologist: for adolescents, a headache specialist.

No further specific areas for quality improvement and potential development by the QSAC were highlighted.

11.2 Selected recommendations from development source

Recommendations from the development source relating to the suggested improvement area have been provisionally selected and are presented below to inform QSAC discussion.

NICE CG 150 – Recommendation 1.3.31

> Consider verapamil for prophylactic treatment during bout of cluster headache. If unfamiliar with its use for cluster headache, seek specialist advice before starting verapamil, including advice on electrocardiogram monitoring.

NICE CG 150 – Recommendation 1.3.32

> Seek specialist advice for cluster headache that does not respond to verapamil.

NICE CG 150 – Recommendation 1.3.31

> Seek specialist advice if treatment for cluster headache is needed during pregnancy.

11.3 Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

Appendix 1 Table Diagnosis of tension-type headaches, migraine and cluster headache

Headache feature	Tension-type headache	Migraine (with or without aura)	Cluster headache
Pain location[1]	Bilateral	Unilateral or bilateral	Unilateral (around the eye, above the eye and along the side of the head/face)
Pain quality	Pressing/tightening (non-pulsating)	Pulsating (throbbing or banging in young people aged 12–17 years)	Variable (can be sharp, boring, burning, throbbing or tightening)
Pain intensity	Mild or moderate	Moderate or severe	Severe or very severe
Effect on activities	Not aggravated by routine activities of daily living	Aggravated by, or causes avoidance of, routine activities of daily living	Restlessness or agitation
Other symptoms	None	Unusual sensitivity to light and/or sound or nausea and/or vomiting **Aura 2** Symptoms can occur with or without headache and: • are fully reversible • develop over at least 5 minutes • last 5−60 minutes. Typical aura symptoms include visual symptoms such as flickering lights, spots or lines and/or partial loss of vision; sensory symptoms such as numbness and/or pins and needles; and/or speech disturbance.	On the same side as the headache: • red and/or watery eye • nasal congestion and/or runny nose • swollen eyelid • forehead and facial sweating • constricted pupil and/or drooping eyelid

Duration of headache	30 minutes–continuous		4–72 hours in adults 1–72 hours in young people aged 12–17 years		15-180 minutes	
Frequency of headache	<15 days per month	≥ 15 days per month for more than 3 months	<15 days per month	≥ 15 days per month for more than 3 months	1 every other day to 8 per day3, with remission4 > 1 month	1 every other day to 8 per day, with a continuous remission4 <1 month in a 12-month period
Diagnosis	**Episodic tension-type headache**	**Chronic tension-type headache**	**Episodic migraine (with or without aura)**	**Chronic migraine (with or without aura)**	**Episodic cluster headache**	**Chronic cluster headache**

Appendix 2 Key priorities for implementation recommendations (CG150)

Key priorities for implementation recommendations which have been referred to in sections 4 - 11 of the main body of this report are highlighted in grey.

Diagnosis

Tension-type headache, migraine and cluster headache

- Diagnose tension-type headache, migraine or cluster headache according to the headache features in the table. [1.2.1]

Medication overuse headache

- Be alert to the possibility of medication overuse headache in people whose headache developed or worsened while they were taking the following drugs for 3 months or more:
    - triptans, opioids, ergots or combination analgesic medications on 10 days per month or more **or**
    - paracetamol, aspirin or an NSAID, either alone or any combination, on 15 days per month or more. [1.2.7]

Management

All headache disorders

- Do not refer people diagnosed with tension-type headache, migraine, cluster headache or medication overuse headache for neuroimaging solely for reassurance. [1.3.3]

Information and support for people with headache disorders

- Include the following in discussions with the person with a headache disorder:
    - a positive diagnosis, including an explanation of the diagnosis and reassurance that other pathology has been excluded **and**
    - the options for management **and**
    - recognition that headache is a valid medical disorder that can have a significant impact on the person and their family or carers. [1.3.4]

Migraine with or without aura

Acute treatment

- Offer combination therapy with an oral triptan[1] and an NSAID, or an oral triptan[1] and paracetamol, for the acute treatment of migraine, taking into account the person's preference, comorbidities and risk of adverse events. For young people aged 12–17 years consider a nasal triptan in preference to an oral triptan[1]. [1.3.10]

- For people in whom oral preparations (or nasal preparations in young people aged 12–17 years) for the acute treatment of migraine are ineffective or not tolerated:

    - offer a non-oral preparation of metoclopramide or prochlorperazine[2] and

    - consider adding a non-oral NSAID or triptan[1] if these have not been tried. [1.3.15]

Prophylactic treatment

- Offer topiramate[3] or propranolol for the prophylactic treatment of migraine according to the person's preference, comorbidities and risk of adverse events. Advise women and girls of childbearing potential that topiramate is associated with a risk of fetal malformations and can impair the effectiveness of hormonal contraceptives. Ensure they are offered suitable contraception. [1.3.17]

Cluster headache

Acute treatment

- Offer oxygen and/or a subcutaneous[4] or nasal triptan[5] for the acute treatment of cluster headache. [1.3.27]

- When using oxygen for the acute treatment of cluster headache:

    - use 100% oxygen at a flow rate of at least 12 litres per minute with a non-rebreathing mask and a reservoir bag **and**

    - arrange provision of home and ambulatory oxygen. [1.3.28]

- When using a subcutaneous[4] or nasal triptan[5], ensure the person is offered an adequate supply of triptans calculated according to their history of cluster bouts, based on the manufacturer's maximum daily dose. [1.3.29]

[1] At the time of publication (September 2012), triptans (except nasal sumatriptan) did not have a UK marketing authorisation for this indication in people aged under 18 years. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. The patient (or their parent or carer) should provide informed consent, which should be documented. See the General Medical Council's Good practice in prescribing medicines – guidance for doctors and the prescribing advice provided by the Joint Standing Committee on Medicines (a joint committee of the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacists Group) for further information.

[2] At the time of publication (September 2012), prochlorperazine did not have a UK marketing authorisation for this indication (except the relief of nausea and vomiting).The prescriber should follow relevant professional guidance, taking full responsibility for the decision. The patient (or their parent or carer) should provide informed consent, which should be documented. See the General Medical Council's Good practice in prescribing medicines – guidance for doctors and the prescribing advice provided by the Joint Standing Committee on Medicines (a joint committee of the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacists Group) for further information.

[3] At the time of publication (September 2012), topiramate did not have a UK marketing authorisation for this indication in people aged under 18 years. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. The patient (or their parent or carer) should provide informed consent, which should be documented. See the General Medical Council's Good practice in prescribing medicines – guidance for doctors and the prescribing advice provided by the Joint Standing Committee on Medicines (a joint committee of the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacists Group) for further information.

[4] At the time of publication (September 2012), subcutaneous triptans did not have a UK marketing authorisation for this indication in people aged under 18 years. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. The patient (or their parent or carer) should provide informed consent, which should be documented. See the General Medical Council's Good practice in prescribing medicines – guidance for doctors and the prescribing advice provided by the Joint Standing Committee on Medicines (a joint committee of the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacists Group) for further information.

[5] At the time of publication (September 2012), nasal triptans did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. The patient (or their parent or carer) should provide informed consent, which should be documented. See the General Medical Council's Good practice in prescribing medicines – guidance for doctors and the prescribing advice provided by the Joint Standing Committee on Medicines (a joint committee of the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacists Group) for further information.

Appendix 3 Suggestions from stakeholder engagement exercise

See table 2 section 3 for details of abbreviations for stakeholders.

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
001	Migraine Action	Stress Management - Medications and non-medication treatments are very effective, but they are not substitutes for young people and adults learning to recognize their stress triggers. Once headache sufferers understand their headaches, they can develop ways of dealing with them.	To ensure young adults do not move into MOH	Counselling - which helps a child or adolescent better understand and appreciate his or her personality and nature - can help kids and families identify stressful situations and then learn how to manage them. Talking freely and confidentially with an objective professional can help a child or teenager successfully manage stress. Relaxation techniques - such as deep breathing exercises, progressive muscle relaxation, mental imagery relaxation or relaxation to music -- can be very effective in reducing or eliminating the tension that produces a headache. Biofeedback - Painless sensors, connected to the body, monitor changes in several physical functions including muscle tension, blood pressure and heart rate - and display feedback on a computer screen. Biofeedback could help a child reduce tension and alleviate headaches	
002	Migraine Action	Sinus Infection, TMJ & Dental Problems. Sometimes individuals attribute their headaches to a sinus infection, TMJ or dental problems. Although headaches can	To ensure an accurate diagnosis of migraine	In order for the sinuses to be a cause of headache there needs to be an ongoing sinus infection including fever, yellow/green discharge and facial tenderness. Chronic sinusitis is not a cause of recurrent headaches. If the symptoms are mostly head/facial pain, it is likely to be migraine.	

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		accompany TMJ (temporomandibular jaw dysfunction), most of these are actually undiagnosed tension-types or migraines.		Actually, stuffy nose and congestion are very common symptoms of migraine.	
003	Migraine Action	Where to go for help	The earlier a diagnosis can be made the more control a young migraineur will have in managing their migraine into adulthood.	When first discussing the child's headache with GP, ask about the plan of action and time frame. Then, if headache symptoms continue or become more frequent despite treatment and different approaches, ask the GP or paediatrician for a referral to a specialist: for children, a paediatric neurologist; for adolescents, a headache specialist. With the proper diagnosis and targeted treatment plan, a young person can enjoy a fulfilling, rewarding life.	
004	Migraine Action	Training of GP's and patients with migraine	To help support the management of migraine	Migraine Action aims to bridge the gap between the migraine sufferer and the medical world by providing information on all aspects of the condition and its management. The lack of headache training for GP's remains a major concern to the charity	
005	Association of British Neurologists	Appropriate use of healthcare resources. a) Hospital admission b) Imaging	a)Primary headache does not need hospital admission, b)Primary headache does not need imaging	It is too easy, when concerned about the impact of disabling headache, to "do a scan" or "get the patient in to hospital" which is typically coded as "?SOL" or similar, overlooking the evidence-based management which belongs in primary care	Decades of clinical experience
006	Association of	Early accurate diagnosis	Headache is common and often	There remains widespread	IHS diagnostic criteria

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	British Neurologists	in primary care.	disabling. Migraine is the commonest cause and is often an overlooked diagnosis.	misunderstanding about the diagnosis of migraine (e.g. aura is required: only severe headaches can be migrainous)	
007	Association of British Neurologists	Avoidance of headache triggers	Lifestyle hygiene, especially regularity of biorhythm (diet, fluids, sleep pattern) seems to help many people	Because it was overlooked in the recent NICE guidance	Expert opinion; no trials
008	Association of British Neurologists	Appropriate acute rescue treatment	The right dose of the right drug at the right time abolishes pain within 2 hours. Too many patients take the wrong drugs at the wrong time	Too many suffer unnecessarily from late or incorrect medication	Many trials and meta analyses
009	Association of British Neurologists	Appropriate prophylaxis	Getting this right changes quality of life	Most non-specialists fail to set appropriate goals for drug prophylaxis of migraine with insufficient doses and durations of treatment	NICE guidance and meta analyses
010	Association of British Neurologists	Identify strategies to highlight potential patients with Analgesic medication overuse headache in primary care via prescribing reviews	Analgesic medication overuse headache is a major public health problem and cause of great indirect and direct health morbidity. In addition it is potentially treatable and there is a huge lack of awareness of the condition that can be easily treated without significant cost.	Whilst some individuals recognise this condition there is no incentive to address it by the stakeholders.	Clinical experience, Published literature, NICE guidance CG150
011	Association of British Neurologists	Improve the delivery of support to patients who have problems with analgesic withdrawal symptoms	It will likely increase the success of analgesic medication overuse headache resolution.	It will reduce the clinical and cost burden of the commonest chronic daily headache problem and likely reduce direct and indirect healthcare prescribing costs in primary care.	Clinical experience,
012	Association of British	Set standards for prompt specialist assessment for	Cluster headache is severe, disabling and treatable with	Cluster headache sufferers sometimes commit suicide given the pan severity and	Clinical practice experience, feedback from

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	Neurologists	patients experiencing a acute cluster bout not responding to primary care 1st line therapy	appropriate therapy. However primary care physicians often misdiagnose it as migraine and do not initiate appropriate therapy	lack of access to appropriate effective therapies	user groups. Published literature -Cluster headache is sometimes termed “Suicide headache”
013	Association of British Neurologists	Improve the awareness of starting, stopping and monitoring processes for prescribed medications in migraine and especially cluster headache	Some patients remain on long term preventative medication that may not be needed. Cluster headache patients currently receive prescribed drugs with specific toxicity and safety concerns that need longer term monitoring as long as they remain on treatment	The current monitoring of the potentially serious side effects in cluster headache is haphazard, non-coordinated and does not clearly delegate appropriate role responsibilities. e.g. Cardiac ECG monitoring on high dose Verapamil, Renal monitoring with Methysurgide, Lithium monitoring for cluster headache.	Published literature, MHRA guidance, Clinical audit and experience
014	Association of British Neurologists	Establishment and use of disability parameters to monitor patient outcomes	Loss of time off work, school, reduced productivity	Need for a more tangible marker for disease outcome – this is not a disability which can be ‘seen’ in conventional terms	Steiner, T. J., A. I. Scher, et al. (2003). "The prevalence and disability burden of adult migraine in England and their relationship to age, gender and ethnicity." Cephalalgia 23(7): 519-527.
015	Association of British Neurologists	Introduction of a guidance for employers on how to accommodate individuals with headache	Appropriate use of disability living allowance	Allows individuals to continue in the work place rather than take alternative long term sick leave / medical retirement	No adequate guidance currently exists
016	RCGP	A diagnosis of the underlying headache should be made	Only 30% of headache presentations in primary care reach a diagnostic threshold	Only 30% of headache presentations in primary care reach a diagnostic threshold	Ridsdale L, Kernick D. Improving management in primary care. Report of All-Party Parliamentary Group

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					on Primary Headache disorders. Page 4-7. House of Commons, London, 2010. Kernick D, Stapley S, Hamilton W. GPs classification of headache: is primary headache under diagnosed? British Journal General Practice 2008;58:102-104.
017	RCGP	A serious pathology should be excluded	Brain tumour is a key priority for the DoH		NICE Headache Guidelines 2012
018	RCGP	GPs should have direct access to Imaging and follow NICE guidelines for this investigation			KernickD, Williams S. Should GPs have direct access to neuroradiological investigation when adults present with headache. British Journal of General Practice 2011;61:409-411.NICE Headache Guidelines 2012
019	RCGP	There should be a clear referral pathway for headache			
020	RCGP	Medication overuse headache should be identified and managed appropriately			NICE Headache Guidelines 2012
021	British	Analgesic Overuse – a	2% of the British Population	The recent guidelines have highlighted the	Clinical Experience, NICE

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	Association for the Study of Headache	better control in younger population to avoid medication overuse headache	suffers from analgesic overuse headache. This is mainly due to over-the-counter availability of some of the weak opiates and other simple painkillers as well as lack of control in prescribing the painkillers. Moreover there is little support for those who have been affected with the problem.	issue but there is no framework as to how to prevent the problem which is potentially treatable. More education in primary care and the general public would help reducing its incidence and there will be increased awareness of the problem to be able to handle it correctly. There is a need for specific pathway with support to handle this problem both in primary and secondary care.	guidelines CG150 and published literature on medication overuse.
022	British Association for the Study of Headache	Diagnosis of primary headache disorders in primary care	Headache is a common condition and vast majority are primary headache disorders that do not require any investigation.	Vast majority of headaches can be managed in primary care to reduce burden of healthcare on secondary and tertiary healthcare services. Improved education and development of interest in the primary care physicians will reduce dramatically the need to refer all patients with primary headache for specialist assessment. The hospital resources and imaging needs in patients with primary headache disorders need a robust pathway. It is important recognise which primary headache disorders and at what stage would require specialist opinion.	Experience, Published literature
023	British Association for the Study of Headache	Appropriate acute and preventive treatment at an early stage	Migraine and other headache disorders have a huge impact on healthcare resources and the economy in general. Effective treatment of acute attacks will reduce disability and absenteeism from work and avoid need for hospital and GP attendance.	Only half of people who need prophylaxis are actually on preventive treatment. Those on preventive treatment may not receive the most appropriate medication and there is lack of robust control to check compliance which is only seen in 20% of patients.	Clinical experience.

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			Effective preventive treatment will reduce the frequency and severity of attacks and improve quality of life of the patient with reduced burden on health resources.		
024	British Association for the Study of Headache	Improvement in diagnosing and treating Cluster headache	Cluster headache is common in young patients mostly men who smoke. The headaches are excruciating often described as suicidal. The condition is poorly diagnosed even by a general neurologist and hence poorly managed. There is lack of understanding on the disorder hence little sympathy for the poor sufferers.	Due to lack of accurate diagnosis patients with cluster headaches are managed as migraine and receive inappropriate acute and preventive treatment. Patients with acute cluster headaches rarely receive oxygen, the most effective treatment and are often denied injectable triptan due to cost. These patients repetitively attend primary and secondary care physicians with a hope to receive some help.	Most patients seen in the headache clinic for cluster headaches have seen many doctors in primary and secondary care without receiving the correct diagnosis and treatment.
025	British Association for the Study of Headache	Chronic Migraine diagnosis and appropriate referral	Chronic Migraine affects 3% of the general population and is the most disabling form of headache disorder. It has enormous impact on the utilisation of healthcare resources as well as puts considerable burden on those caring for them.	Only 20% patients with Chronic Migraine receive the right diagnosis. As a result of inappropriate management, a large number of these patients develop medication overuse problem. The disorder is under-recognised and under treated.	Published literature and clinical experience.
026	Royal College of Physicians	Royal College of Physicians wishes to endorse the response submitted by the ABN			
027	The Migraine Trust	Diagnosis and screening for medication overuse headache	Community studies suggest that headache is the most common symptom experienced in the	.As 95% of headache consultations present to primary care, this setting offers important opportunities to reduce the burden of	Leone Ridsdale and David Kernick ‘Headache: improving management in

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			population but not a major reason for a consultation with a GP. The majority use non-prescription medicine and do not seek medical help. Only 50% of migraineurs have ever seen a doctor about their condition and of those who have, the minority are under continuing care. The majority of patients self medicate and this can gradually escalate into medication overuse	headache in the UK. Primary care practitioners, not only GPs but also pharmacists, could opportunistically ask about headaches and use of pain-killers, to address the issue of approximately 50% undiagnosed migraineurs and risk of medication overuse headache.	primary care' in Headache disorders: not respected, not resourced-a report of the All-Party Parliamentary Group on Primary Headache Disorders
028	The Migraine Trust	Explanation and information	NICE clinical guideline 150 includes information and support for people with headache disorders, a positive diagnosis including an explanation of the diagnosis and reassurance that other pathology has been excluded, the options for management,	People with headache conditions should have the information they need to make informed decisions about their care and treatment and, where appropriate, to support them to manage their condition themselves. People with headache conditions are often young when diagnosed and will need to manage their condition over decades of their lives. Without the information that they require, people with headache conditions can become demoralised. Health professionals in primary care may not have sufficient time to offer explanations, information and support	Department of Health (2005) The National Service Framework for long term conditions NICE clinical guideline 150
029	The Migraine Trust	Accurate diagnosis of primary headaches in primary care	GPs are often successful in diagnosing migraine but can be less so in diagnosing some other headaches, such as cluster headache. It is important to	Primary headaches are a huge burden for the NHS and the economy, even without taking the humanitarian aspect into account. Primary headaches can be very demoralising and cause enormous suffering,	SIGN Diagnosis and management of headache in adults

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			distinguish between those whose condition can be diagnosed and successfully managed in primary care and others who will benefit from a referral to specialist care, and knowledge of where best to refer, for example, GPs with a special interest in headache	so the most appropriate setting for effective care needs to be identified as quickly as possible.	
030	Royal College of Nursing	We welcome proposal to develop quality standards for headaches in young people and adults There is nothing to add at this stage.			
031	Sheffield Teaching Hospitals NHS Foundation Trust	Lumbar puncture in CT negative acute headache for ?SAH	A traumatic LP can confound result of negative CT brain. Increases LOS	A traumatic LP can confound result of negative CT brain. Increases LOS	Please see ‘’Determining the sensitivity of computed tomography scanning in early detection of subarachnoid haemorrhage’’ A study by department of neurosurgery, Alborg Hospital, Denmark Neurosurgery 66:900-903, 2010, www.neurosurgery-online.com
032	RCPCH	Clear diagnosis should be made	Not provided	Not provided	Not provided
033	RCPCH	Ineffectiveness of the	Not provided	Not provided	Not provided

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		medication should be clearly communicated in appropriate cases			
034	RCPCH	MRI should be done when warranted - avoiding CT scan unless urgent	Not provided	Not provided	Not provided
035	RCPCH	Sinusitis should be considered	Not provided	Not provided	Not provided
036	RCPCH	Psychological help should be made available to coordinate with school and family	Not provided	Not provided	Not provided
037	Addenbrooke's Hospital	Multidisciplinary educational rehabilitation with psychological support for refractory medication overuse headache	There is increasing evidence that analgesia/ medication overuse headache is a drug dependent behaviour and is not dependent on the initial underlying headache severity (Corbelli et al. Drug-dependence behaviour and outcome of medication-overuse headache after treatment. J Head Pain. 2012; 13(8):653-60.) NICE has acknowledged the contribution of medication overuse to chronic headache and called for identification and appropriate treatment in its guidelines. However greater emphasis on supporting sustained successful withdrawal from	Medication overuse headache is estimated to affect 2% of the population and represents a tremendous socio-economic burden. Strategies for sustained successful withdrawal from analgesia overuse will be vital in modifying this. Several studies-albeit open label- from our European colleagues demonstrate that a multidisciplinary education & rehabilitation (neurologist, psychologist, physiotherapist) programme is more successful in treating and resolving recurrent medication overuse. The number of centres offering multidisciplinary support for refractory medication overuse in the UK is limited.	Please see the following peer reviewed published studies which highlight the role of a multidisciplinary educational rehabilitation programme for management of recurrent medication overuse: 1Munskgaard et al. Detoxification of medication overuse headache by a multidisciplinary treatment programme is highly effective: a comparison of two consecutive treatment methods in an open label

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			medication overuse is required as over a third will return to overuse at 1 year despite initial good detoxification compliance		design. Cephalgia 2012; 32(11):834-44. 2Wallasch, Kropp. Multidisciplinary integrated headache care: a prospective 12 month follow-up observational study. J Head Pain. 2012. 13 (7): 521-529. 3Gaul. Evaluating integrated headache care: a one year follow-up observational study in patients treated at the Essen headache centre. BMC Neurol.2011; 11:124
038	Addenbrooke's Hospital	Early identification of co-morbid mood disorders with appropriate access to psychological support and treatment in all headache conditions but especially migraine	There is good epidemiological evidence that the prevalence of depression is increased in migraineurs and is associated with conversion from the episodic to the chronic state. NICE has issued separate guidelines on the identification and management of depression (CG28) which need to be integrated into current headache management. Currently many de novo patients will continue to be treated with the tricyclic antidepressant	Access to psychology services remains lacking, with the improving access to psychological services (IAPT) scheme estimating only 60% of the population will have access to this service (Clark D. Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: The IAPT experience. International J Psych 2011; 23: 375–384). Moreover, headache with associated mood disorder is anecdotally perceived not to be a	Please see published AMPP epidemiological data outlining the prevalence of depression in migraineurs, establishing an association with depression and onset to chronic migraine (Ashina et al. Depression and risk of transformation of episodic to chronic migraine. J Head Pain. 2012 Nov; 13(8):615-24).

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			amitriptylline targeting headache, affective disorder and sleep. However additional access to psychological support and targeted treatment are required.	high priority referral and with a shortfall in resources these perceived 'low triages' remain unfulfilled.	Recent neuroimaging studies of migraineurs suggest altered functional connectivity between brainstem pain-modulating circuits and cortical (limbic) centres such that emotion and mood prime the brain to amplify the pain experience. (1Ploghaus et al. Exacerbation of pain by anxiety is associated with activity in a hippocampal network. J neurosci. 2001; 21(24):9896-903. 2Eck et al. Affective brain regions are activated during the processing of pain-related words in migraine patients. Pain. 2011; 152(5): 1104-13).
039	Addenbrooke's Hospital	Enhanced support for neurology follow up of complex headache patients	The headache specialist has a role both in diagnostics and continuing management of the complex patient. NICE guidance promotes the use of botulinum toxin A treatment therapy for those who have chronic migraine and have failed 3 adequate	The National Audit Office report on service for people with neurological conditions in December 2011 highlighted the issue of perverse incentives with new to follow-up ratios, leading to cycles of discharge and re-referral, failing to support both continuity of care and management of long term diseases. Whilst no specific data is available	Please see the National Audit Office report on 'Services for people with neurological conditions' highlighting significant areas of concern to include the new to follow-up ratio:

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			prophylactic trials. This will require greater specialist involvement to set up and help oversee this service, requiring increased follow up slots to be generated without penalty.	for headache sufferers they are likely to be particularly penalised as they compete for follow up slots with progressive neuro-inflammatory or neurodegenerative cohorts.	http://www.nao.org.uk/publications/1012/neurological_conditions.aspx
040	Addenbrooke's Hospital	Development of patient education programmes as part of the management of headache	There is evidence that formal patient education programmes are important in the management of headache patients, influencing enhanced analgesia withdrawal in medication overuse and improving headache burden in migraineurs. Current NICE guidelines recognise the importance of patient education and provision of information and the need to deliver this, both orally and with written information. Expanding on this, formal education programmes as part of the multidisciplinary management should be developed and accessible to those with refractory headaches.	Dedicated educational programmes in headache are not widely available even in specialist centres in the UK. Education is curtailed to the clinical contact time where it is not the primary focus. Studies show that patients with headache (medication overuse) prefer personal verbal information delivery (Munksgaard et al. What do patients with medication overuse headache expect from treatment and what are the preferred sources of information. J Head Pain. 2011; 12(1):91-96). and written information may therefore not be the optimal reinforcement tool. Development of structured educational programmes as part of the multidisciplinary programme is called for as it enhances engagement, patient locus of control and can impact on outcome.	Please see the following peer reviewed published works which highlight the positive role of education as part of the intervention in the management of headache: For medication overuse: 1Munskgaard et al. Detoxification of medication overuse headache by a multidisciplinary treatment programme is highly effective: a comparison of two consecutive treatment methods in an open label design. Cephalgia 2012; 32(11):834-44. 2Grande. Reduction in medication-overuse headache after short information. The Akershus

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					study of chronic headache. Eur J Neurol. 2011; 18(1):129-37 For migraine: 1Smith. Migraine education improves quality of life in a primary care setting. Headache. 2010; 50(4):600-12 2Friedman. A Randomised controlled trial of a comprehensive migraine intervention prior to discharge from an emergency department. Acad Em Med. 2012; 19(10):1151-1157
041	Allergan	Diagnosis of chronic migraine.	Migraine is a debilitating, chronic, neurological disorder characterised by attacks of moderate-to-severe head pain accompanied by nausea, photophobia, phonophobia and visual disturbances in various combinations. Chronic migraine (CM) is a sub-type of chronic daily headache and is diagnosed according to the *International Classification of Headache*	Evidence suggests that between 2.5 and 4.6% of people with episodic migraine may progress over time to chronic migraine. Earlier diagnosis of these patients in primary and secondary care and appropriate management in specialist centres could help to improve patient quality of life and to reduce the economic impact on the NHS.	· Headache Classification Sub Committee of the International Headache Society. (2004). The International Classification of Headache Disorders: 2nd Edition. Cephalalgia : an international journal of headache. 24, 9-160. · Blumenfeld AM, Varon SF, Wilcox TK et al.

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			Disorders, 2nd edition revised criteria (ICHD-2R) as headache occurring on ≥15 days per month for at least three months with eight or more days meeting criteria for migraine or responding to migraine specific medication, in the absence of medication overuse. CM is estimated to affect 1.6% of the adult UK population. Overall, compared to those with episodic migraine, persons with CM experience significantly greater disability as well as higher rates of resource usage, along with a significant reduction in workplace productivity. Specialist diagnosis of chronic migraine could permit access to treatment and support which could significantly reduce the burden of this condition.		(2010). Disability, HRQoL and resource use among chronic and episodic migraineurs: results from the International Burden of Migraine Study (IBMS). Cephalalgia : an international journal of headache. 31, 301-315. · Natoli JL, Manack A, Dean B et al. (2009). Global prevalence of chronic migraine: a systematic review. Cephalalgia : an international journal of headache. 30, 599-609. · Technology Appraisal Guidance 260: Botulinum Toxin Type A for the prevention of headaches in adults with chronic migraine.
042	Allergan	Consistent coding of headaches and migraine through PBR	To improve audit and PROMs.	Consistent standards are needed for the coding of all types of headache and migraine to improve audit and assessment of patient outcomes. This would also support monitoring of NICE Guideline and TAG implementation.	