The Royal College of Chiropractors

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Chiropractic Quality Standard

Headaches

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About the Royal College of Chiropractors' Quality Standards

This quality standard covers the chiropractic assessment and management of adult patients presenting with headaches. Quality Standards are tools designed to help deliver the best possible outcomes for patients. They are a series of specific, concise quality statements with associated measures that provide aspirational, but achievable, markers of high-quality patient care covering the treatment of different conditions. They also form an important part in addressing the increasing priority being placed on improving quality and patient outcomes.

The primary purpose of The Royal College of Chiropractors' quality standards is to make it clear what quality care is by providing patients, the public, healthcare professionals, commissioners and chiropractors with definitions of high-quality chiropractic care.

By providing a clear description of what a high-quality service looks like, clinics can improve quality and achieve excellence. The quality standards should encompass statutory requirements, best practice and existing clinical guidelines, but they are not a new set of targets or mandatory indicators for performance management. They are, however, a useful source to form the basis of clinical audit and to identify priorities for future improvement.

Chiropractors are encouraged to adopt the Royal College of Chiropractors' quality standards as practice policy. They can be used in a wide range of circumstances, such as a source of identifying CPD, or clinic promotion, perhaps when tendering for NHS contracts, or even at a national level. They enable healthcare professionals to understand the standard of service chiropractors provide, and allow commissioners to be confident that the services they are purchasing are of high quality. Importantly, they also help patients to understand what service they should expect.

Quality Measures

The quality measures accompanying each quality standard aim to improve the structure, process and outcomes of care. They are not a new set of targets or mandatory indicators for performance management, but might be used to form the basis of future audit. They also specify what each statement means to each stakeholder (provider, commissioners, patients).

Additional Resources

In addition to the quality statements and accompanying quality measures, supplementary material has been provided that is specifically aimed at supporting chiropractors to adopt the quality standard into clinical practice. These include more detailed explanations of assessment, diagnosis and management considerations. A **chiropractic assessment and management flowchart** is also provided, with an additional **patient history guide**, a **guide to red flags**, and a **diagnostic flowchart**. These resources have been developed to be specific to a chiropractic setting, and their content may therefore vary slightly from that published in other medical guidelines.

Chiropractic Quality Standard

Headache

Scope and Context

This quality standard covers the chiropractic assessment and management of adult patients presenting with headache.

Headaches are one of the most common health complaints, with most people experience them at some point in their life. The World Health Organization (WHO) reports that almost half of all adults worldwide will experience a headache in any given year[1]. In the Global Burden of Disease Study 2017, headache disorders were the second most prevalent condition worldwide, as well as the second highest cause of years lost due to disability (YLD) [2].

In the UK, migraine occurs in 15% of the adult population, with around 200,000 individual episodes estimated every day, resulting in high levels of disability and work absence, as well as having a significant impact on the wider economy. Episodic tension-type headaches effect 80% of people at some time, and are chronic (having more days with a headache than without one) in up to 3% of the population. Medication-overuse headache is the third most common cause of headache, effecting up to 2% of adults[3]. Despite these figures, headache is under-estimated, under-diagnosed and under-treated, and remains a major public health concern[1,4].

Chiropractors regularly see patients that present with headache, often having not been seen by any other healthcare professional, and with no diagnosis having been made. Chiropractors have the skills and competencies to assess patients in order to diagnose most primary headaches, identify secondary headaches that require further investigation and, importantly, recognise the red flags that indicate a medical emergency.

As well as having a role in the management of some primary headaches and a few secondary headaches (in particular cervicogenic headaches), chiropractors also play an important public health role in providing support and advice to patients, signposting, and making appropriate referrals.

There are a wide range of different patient presentations associated with headache and the management in each case will be different, requiring an individualised approach. These quality statements are therefore general but nevertheless provide aspirational but achievable markers of high-quality, cost effective patient care.

Given the chronic nature of many headaches, where appropriate, this standard should be read in conjunction with the chiropractic quality standards on “Chronic Pain” and “Supportive Self-Management in Chronic Care”, both also published by the Royal College of Chiropractors.

Chiropractic Quality Standard

Headache

Quality Statements

1) **Waiting Times:** On contacting a chiropractic clinic, patients seeking care for headache are offered an appointment within three working days, unless red flags suggesting serious pathology are identified at the initial contact, in which case signposting to acute care is provided.

2) **Patient History:** Patients presenting with headaches are assessed on the basis of a full history *(see Patient History Guide)* and headache-specific questionnaire (such as HIT-6) to assess the impact of the headache and to assist in informing a diagnosis.

3) **Clinical Examination:** The assessment of patients presenting with headaches includes a thorough clinical examination, which includes a detailed neurological evaluation (including cranial nerves), and blood pressure measurement.

4) **Red Flags:** Patients presenting with headaches will be assessed for signs and symptoms of potential serious pathology *(see Guide to Red Flags)* and immediate referral facilitated, if appropriate.

5) **Diagnostic Imaging:** Routine diagnostic imaging (including x-rays, CT and MRI) is not required for patients presenting with headache, but should be considered if onset was traumatic or if neurological testing warrants.

6) **Patient Explanations:** Patients with headaches are given an explanation of their likely headache type *(see Diagnostic Flowchart)*, an initial diagnosis, any suspected causal factors, details of different treatment options, and an expected prognosis. Patients are also given information on the risk of medication-overuse headache.

7) **Plan of Care:** A plan of care is formulated in partnership with patients' presenting with headache which considers their personal preferences, but aims to reduce symptoms and increase the ability to function. The plan of care includes a formal review within four weeks of the commencement of treatment.

8) **Informed Consent:** Patient with headaches are asked to consent to treatment after they have received an explanation of the risks and benefits of treatment, the likely outcomes with and without treatment, and a plan of care has been agreed.

9) **Package of Care:** Patients with headaches are managed according to their headache type, but should expect to be treated with an individualised package of care, which might include manual therapies, exercise and lifestyle advice, acupuncture, cognitive behaviour interventions, and often concurrent management with other healthcare professionals, particularly with regard to medication.

10) **Interprofessional Collaboration:** When managing patients with headache, chiropractors are attentive to the involvement of other health professionals, the medications that patients are taking, and write reports of their findings and management to the patient's GP. Chiropractors recognise their own limitations in the diagnosis and management of headache, and refer to other healthcare professionals, as appropriate.

11) **Monitoring and Reassessment:** The progress of patients with headache is continually kept under review with regular formal reassessments, the use of validated outcome tools, and potential referral to another healthcare professional, particularly if they show no demonstrable signs of improvement within four to eight weeks.

12) **Supported Self-Management**: Patients with headache are discharged from acute care once signs and symptoms become manageable or are absent. Ongoing supportive self-management, including rehabilitation and prophylactic care, is offered, depending on the headache type.

Headache

Patient Assessment

The International Classification of Headache Disorders (ICHD) provide a detailed classification of over 200 different types of headache[5]. However, there are only a small number of primary headaches types. The causes of these are poorly understood and they are therefore classified according to their clinical presentation[6]. Secondary headaches are symptoms of other conditions, some of which can be serious. Medication-overuse headache far outnumbers all other types of secondary headache[7].

As there are no diagnostic tests for any of the primary headache disorders (or for medication-overuse headache), diagnosis is reliant on taking a detailed and thorough **patient history**. In addition to all the normal elements of a standard medical history, including the assessment of psychosocial factors, additional headache-specific inquiries should be made. The different components of a comprehensive headache-specific history are provided in the *Patient History Guide* (Box 1). Asking a patient to complete a **headache diary** can also provide a useful additional resource to assist in the diagnosis of headaches, and in monitoring their progress[3,6,8].

The use of **questionnaires** is helpful in providing evidence of the impact of headaches, as well as quantifying the effectiveness of therapeutic interventions. There are a number of headache-specific patient-reported outcome measures (PROMs) with strong evidence of reliability and validity. However, the HIT-6 is alone in having acceptable evidence supporting its use by all headache populations[9].

Although the majority of patients present with primary headaches (specifically tension-type headaches or migraine), it is necessary to exclude secondary headaches, particularly those that can have serious underlying cause. These include intracranial tumours, meningitis, subarachnoid haemorrhage, cervical artery dissection, giant cell arteritis, angle-closure glaucoma, idiopathic intracranial hypertension and carbon monoxide poisoning[3]. Headache **red flags** are signs or symptoms that raise the suspicion of a serious secondary headache, the presence of which require additional enquiry, investigation or referral. A *Guide to Red Flags* (Box 2) lists the most notable red flags for patients presenting to chiropractors with headache.

The primary headaches, and medication-overuse headache, are diagnosed solely on the medical history. However, to exclude secondary headache a physical and neurological **examination** is necessary. This should include a neurological examination (including cranial nerves), blood pressure, palpation of temporal arteries, and an examination of the head and neck[3,10]. Fundoscopy is a valuable tool to assess for signs of raised intracranial pressure[11]. Without the necessary competencies and experience in using fundoscopy, the threshold should be low for referral for further assessment where there is any suspicion of intracranial pathology.

The majority of headaches can be diagnosed without any **investigations**. Patients with tension-type headache and migraine, in the absence of signs or symptoms of secondary headache, should not be referred for imaging[12]. Reassurance is not a justification for imaging in cases of primary headache[6]. Should a secondary headache be suspected, or the involvement of trauma, then it may be appropriate to refer patients to be considered for neuroimaging[13]. This may include MRI, CT and angiography.

Headache Diagnosis

The vast majority of headaches, and those most likely to be presenting to chiropractors, are the primary headaches, essentially consisting of **tension type headache**, **migraine** and trigeminal autonomic cephalalgias (with **cluster headache** being the most common). Of the secondary headaches, **medication-overuse headache** is the most common. **Cervicogenic headache** is another secondary headache that is commonly encountered by chiropractors and is defined as pain referred from a source in the neck and perceived in one or more areas of the head and/or face[5]. The *Diagnostic Flowchart* (Box 3) shows the main clinical features associated with all these headaches. A positive diagnosis is one achieved based on the typical clinical picture that does not require any further investigations to exclude alternative explanations for a patient's symptoms[6].

Patients with headache can pose a diagnostic challenge, as each of the primary headaches is in the differential diagnosis of each of the others, and medication-overuse headache is in the differential diagnosis of migraine and tension-type headache[14]. It is also common for patients to present with mixed, or multiple headaches, with symptoms attributable to more than one headache type. In such cases, each headache should be diagnosed separately and managed appropriately.

Cervical Artery Dissection (CAD) is an important consideration for chiropractors because this often presents as headache and neck pain, with similar features to both tension type headache and musculoskeletal neck pain. Although the incidence of CAD is very low, it is a common cause of stroke in people under 50[15]. Suspicions would be raised by abnormal neurological findings, but these are often not present. Chiropractors should therefore be mindful of the risk factors associated for CAD, which include recent minor trauma or infection, connective tissue disorders, a family history of arterial disorders, pregnancy, smoking, hypertension, and other atherosclerotic risk factors[15,16,17]. A new onset of severe unilateral occipital headache is a red flag for latent CAD[5,15] and, as such, it would be prudent to avoid the use of cervical manipulation. The validity and reliability of cervical vertebrobasilar insufficiency tests are low[17].

Management of Primary and Cervicogenic Headache

The management of patients presenting with headache will vary enormously depending on the presentation and the diagnosis. The role of a chiropractor will therefore also vary significantly across a range of different actions and interventions. This will include providing urgent referrals, co-managing patients with other healthcare professionals, and in some circumstances taking a lead role in providing care.

Patient Education, reassurance and self-management advice are recommended for most primary headaches[3,6,8,14]. Although medical guidelines and the bulk of research output focusses on pharmacological management, there is considerable evidence supporting the use of **physical therapies** (including combinations of manipulation, mobilisation, soft tissues therapies and therapeutic exercises) for the treatment of migraine, tension type headache and cervicogenic headaches[3,18,19,20,21,22]. The evidence suggests that not all interventions are equally effective for all headache conditions, and that interventions should be based on proper clinical reasoning[21]. Although conclusions are limited by the number and design of individual studies; spinal manipulation appears better indicated for cervicogenic and migraine headaches, and a multimodal approach best for tension type headache[18,21,22]. Therapeutic exercise is effective for all headache types, but the kind of exercise varies. Broadly, the evidence suggests the re-education of deep neck flexors in cervicogenic and tension type headaches, and that aerobic exercise might be effective for migraine and tension type headaches[14,20,21,22]. NICE recommends considering the use of acupuncture for chronic tension-type headaches and migraines[6]. Manual therapy is also an effective approach to improving the health-related quality of life in patients with migraine and tension type headaches[23].

However, headaches frequently present as a combination of different headache classifications and determining the exact effect of each can be a clinical challenge. Chiropractors will often be treating patients for other musculoskeletal conditions, with headaches as a secondary complaint. Numerous musculoskeletal conditions have an effect on the head and neck region, and impact on headaches of different types. Neck pain itself is more prevalent in individuals with primary headaches[24]. Chiropractic management should therefore be individualised, based on a package of care addressing the individual circumstances and preferences of the patient. In addition to manual therapies, this may include a range of other interventions including exercise and lifestyle advice, acupuncture, biofeedback and psychosocial counselling[14,19,21].

Clinical judgement is crucial in the management of headaches, and knowing your own limitations as a clinician is an important part of that. Actively reviewing the progress of patients presenting with headaches is essential, with no change in symptoms or outcome measures (such as HIT-6) within a few weeks suggesting a different course of action might be warranted.

Headache

Chiropractic Assessment and Management Flowchart

The Royal College of Chiropractors
Chiropractic Quality Standard

Patient Presenting with **Headache**

Take a **Patient History**
Including detailed headache-specific inquiries
(see *Box 1*)

Consider completion of:
- **Headache Questionnaire** (eg HIT-6)
- **Headache Diary**

Perform a **Physical Examination**
- Neurological assessment (including cranial nerves)
- Measurement of blood pressure
- Palpation of temporal arteries
- Head and neck examination
- Fundoscopy (if experienced and competent)

Consider **Red Flags**
(see *Box 2*)

POSITIVE Red Flags may require urgent **Referral**, and/or further inquiry or investigation (as appropriate)

Identify **Headache Type(s)**
(see *Box 3*)

Headaches **NOT** matching the clinical features of Migraine, Tension Type or Cervicogenic Headache - consider referral and/or further inquiry or investigations (as appropriate)

Headaches matching the clinical features of **Migraine, Tension Type or Cervicogenic Headache** (noting that they may co-exist):
- Provide patient explanation, education and reassurance
- Give information on the risk of Medication-Overuse Headache
- Make decision whether to manage, co-manage or refer (in full consultation with the patient)

Make **Referral**
(as appropriate)

Select Individualised **Management Options** considering headache type (through shared decision-making with the patient) considering:
- Manual Therapies (inc. manipulation, mobilisation and soft tissue therapies)
- Exercise Prescription (inc. strengthening, stretching and aerobic)
- Physical activity and lifestyle advice
- Cognitive behavioural interventions
- Acupuncture / myofascial dry needling
- Biofeedback techniques

Evidence Guide

Not all interventions are equally effective for all headache conditions.

- **Spinal manipulation** appears better indicated for cervicogenic and migraine headaches, and a multimodal approach best for tension type headache.
- **Exercises** to re-educate deep neck flexors may be beneficial in cervicogenic and tension type headaches. Aerobic exercise may be effective for migraine and tension type headaches.
- **Acupuncture** may be considered for chronic tension-type headaches and migraines.

Interprofessional Communication
- Correspond with GP and/or other managing HCPs

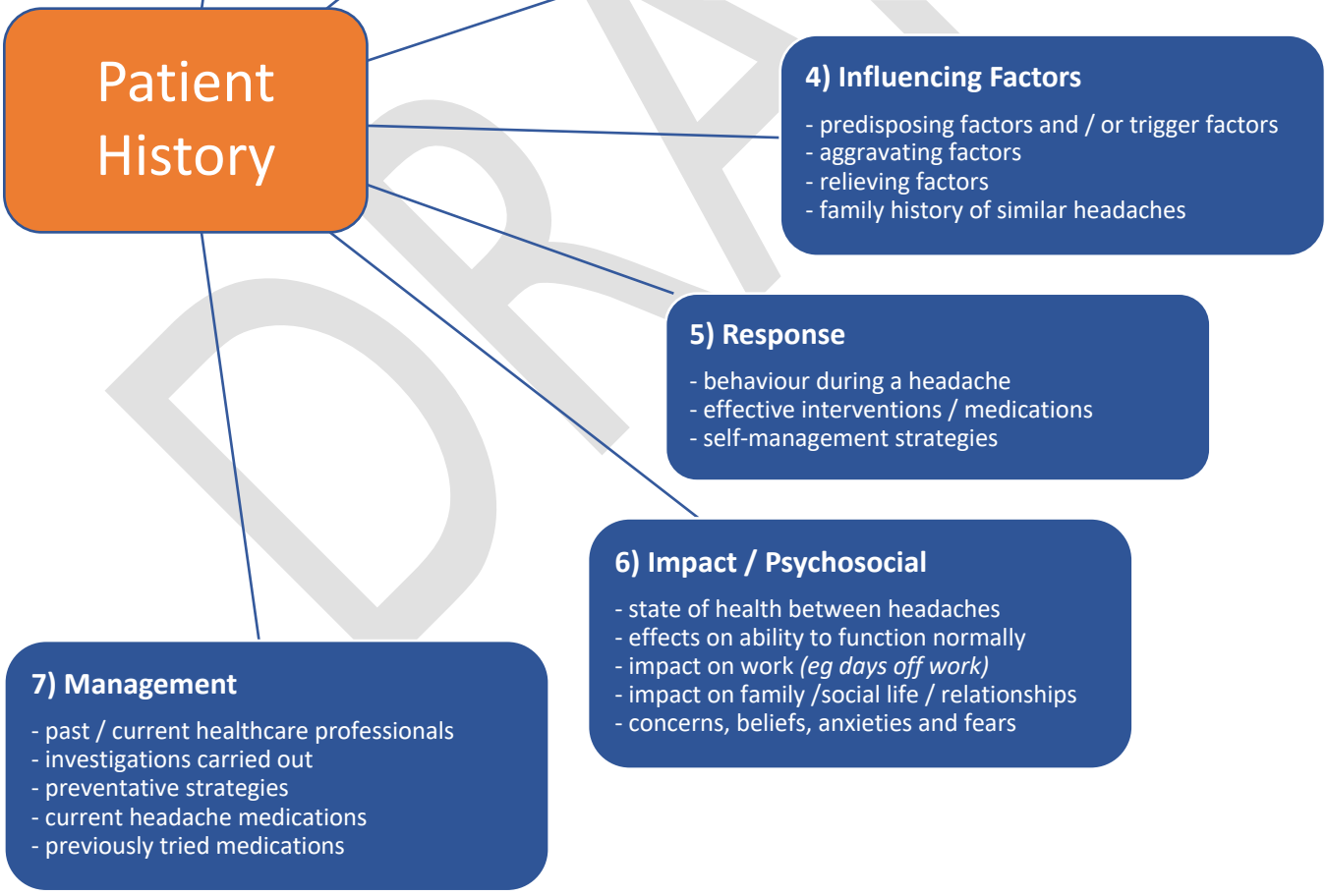
Carry out regular **Reviews** (initially within 4 weeks)
- Use outcome measures (eg HIT-6)
- Review patient headache diaries
- Consider additional referrals or co-management with other HCPs

Headache

Patient History Guide

The Royal College of Chiropractors
Chiropractic Quality Standard

These **headache-specific criteria** of a patient history should be addressed in addition to all the normal elements of a standard medical history, including the assessment of psychosocial factors, past medical history and family history.



* Associated symptoms may include nausea, vomiting, dizziness, photophobia, blind spots, flashing lights, upset stomach, light headed, noise sensitivity, eye tearing, drooping or swollen eyelid, eye pain, rhinorrhoea, nasal congestion, tinnitus, insomnia, fever, neck stiffness, weakness, visual disturbances, restlessness, numbness, paraesthesia, muscle stiffness and tenderness.

Headache

Guide to Red Flags

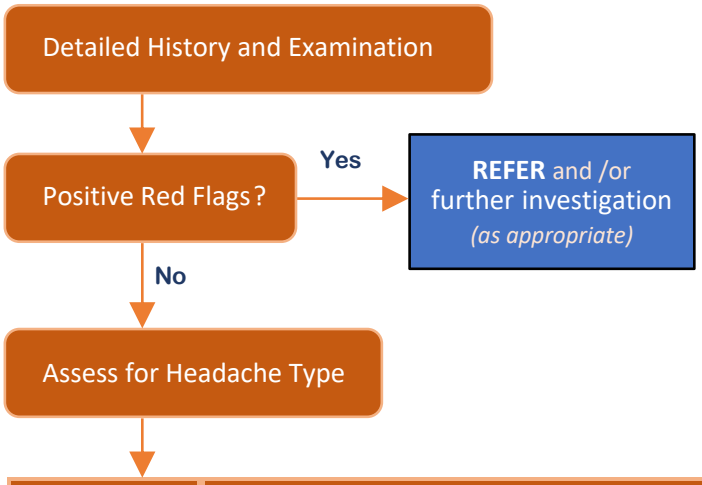
The Royal College of Chiropractors
Chiropractic Quality Standard

Headache Red Flags are signs, symptoms, or aspects of a patient's history that raise the suspicion of a secondary pathological cause for headache rather than the existence of a primary headache such as migraine or tension type. Although their presence does not guarantee pathology, positive red flags warrant further enquiry, investigation, or referral, and a degree of caution in proceeding with care.

All Patients with Headache	A
Recent Head Trauma (usually within 3 months) **Thunderclap** - rapid progression to peak headache intensity (< 5 minutes) Headache described as **"The Worst Headache Ever"**	
Abnormal Neurological Findings (on examination) **Focal Neurological Symptoms** (eg. motor weakness, aura < 5 minutes or > 1 hour) **Non-Focal Neurological Symptoms** (eg. cognitive or personality changes, seizure)	
Jaw Claudication with/without **Visual Disturbance**	
Headache that **Changes with Posture** Headache that **Wakes Patient from Sleep** (if a new headache) Headache that **Worsens over Weeks**	
Headache **Precipitated by Physical Exertion or Valsalva Manoeuvre** (eg. coughing, laughing, straining)	
New & **Severe** Headache with **Systemic Illness** (eg. fever, neck stiffness, muscle pain, vomiting, cold feet, rash) **New**, **Severe** & **Unilateral Occipital** Headache (esp. younger people, recent infection or minor neck trauma)	

Patients with Known Headache History	B
Change in Headache **Frequency**, **Characteristics** or **Associated Symptoms**	
Worst / Severe Headache with **Systemic illness** (eg. fever, neck stiffness, muscle pain, vomiting, cold feet, rash)	

Specific Patient Groups:	C
Over 50 Years	New onset or change in headache
HIV Infection	New onset or change in headache
History of Cancer	New onset or change in headache
Pregnancy / Post-Partum	New onset or change in headache
Combined Oral Contraceptive	First time Aura



Headache

Diagnostic Flowchart

The Royal College of Chiropractors
Chiropractic Quality Standard

Based on: ICHD 3rd Edition Classification	Primary Headache			Secondary Headache	
	Migraine Headache	**Tension Type Headache** (TTH)	**Cluster * Headache**	**Cervicogenic Headache**	**Medication-Overuse Headache** (MOH)
Frequency	From one to several a month	Variable but often daily or most days	From once every other day to 8 times a day	Daily	15 or more days in a month
Severity	Moderate to Severe (NRS: 6-10/10)	Mild to Moderate (NRS: 4-6/10)	Severe to Very Severe (NRS: 10/10)	Mild to Severe (NRS: 4-9/10)	Mild to Severe (NRS: 2-6/10)
Location	Unilateral or Alternating Unilateral	Bilateral / Around Head	Unilateral	Posterior (Back to front) / Unilateral	Generalised / Bilateral
Nature of Pain	Throbbing / Pulsating	Pressing / Tight / Gripping / Band-like	Stabbing / Sharp	Ache Radiating from Occipital Area into Head, Neck and/or Face	Diffuse / Pressure
Visual Aura	+/-	-	+/-	-	+/-
Duration	4-72 Hours	Variable / Often Constant	15-180 Minutes	Hours / Constant	Hours / Constant
Nausea	++	+/-	+/-	+/-	-
Photophobia / Phonophobia	++	+/- either/or (but not both)	+	-	-
Vomiting	+	-	+/-	-	-
Activity	Need to rest & keep still, and normal activity aggravates	Can act normally, but can reduced desire to exercise	Restless, pacing, cannot stay in bed	Worse with neck movement, and often first thing in morning	Normal
Examination	Normal, with possibility of some occipital and trapezius tenderness	Often muscle referral patterns	Cranial autonomic features during headaches	Pain on neck movement, and clinical signs of neck dysfunction	Normal
Neck Stiffness	+/-	+/-	-	+	-
Quantity / Temporal Characteristics	**Chronic** if > 15 days/month of headaches, of which 8 are migraine, for >3 months If not, **Episodic**	**Chronic** if headaches occur on ≥15 days/month on average, for >3 months If not, **Episodic**	At least 5 episodes	Consider TTH or mixed headache if more myofascial than cervical	Regular use for >3 months of one or more drugs taken for acute or symptomatic treatment of headache
	Note: It is very common for people to present with mixed or multiple headaches				

* Cluster Headache is the most common form of the **Trigeminal Autonomic Cephalalgias** (TACs). Although rare, the three other forms are Paroxysmal Hemicrania, Short-Lasting Unilateral Neuralgiform, and Hemicrania Continua. These headaches typically occur multiple times daily, lasting anything from a few seconds to 30 minutes, are unilateral in the trigeminal distribution (often around the eye), and are moderate to severe in intensity. All forms of TAC should be referred for assessment and management by a neurologist.

Chiropractic Quality Standard

Headache

Quality Measures

Chiropractic Quality Statement 1: Waiting Times	
Quality Statement	On contacting a chiropractic clinic, patients seeking care for headache are offered an appointment within three working days, unless red flags suggesting serious pathology are identified at the initial contact, in which case signposting to acute care is provided.
Quality Measure	**Structure:** Evidence of practice policy listing waiting time targets, and the necessary practitioner availability to reasonably meet those targets, as well as training resources for first contact staff to support the identification of potential medical emergencies. **Process 1:** Proportion of patients seeking care for headache being offered appointments within three working days. **Numerator 1:** The number of patients in the denominator being offered an appointment within three days. **Denominator 1:** The total number of patients contacting the clinic and seeking care for headache. **Process 2:** Proportion of first contact staff being provided with training to assist in the identification of potential medical emergencies. **Numerator 2:** The number of staff in the denominator provided with training to assist in the identification of potential medical emergencies. **Denominator 2:** The total number of first contact staff.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that their clinic has the appropriate capacity to provide appointments within three working days for patients contacting the clinic with headache, and that first contact staff are provided with training to assist in the identification of potential medical emergencies. **Commissioners** should look at the capacity to offer appointments to patients with headache within three working days, and for evidence that first contact staff are provided with training to assist in the identification of potential medical emergencies. **Patients** with headache should have an expectation that they will be provided an appointment within three working days or signposted to acute care.
Sources	• A reasonable expectation by both service providers and service users 25 Peters et al. Quality in the provision of headache care. 2: Defining quality and its indicators. J Headache Pain 2012; 13(6): 449-457 26 Wilson A et al. Service factors causing delay in specialist assessment for TIA and minor stroke: a qualitative study of GP and patient perspectives. BMJ Open 2016; 6(5): e011654 27 Mellor RM et al. Receptionist rECognition and rEferral of Patients with Stroke (RECEPTS): unannounced simulated patient telephone call study in primary care. British Journal of General Practice 2015; 65(636): e421-427

Chiropractic Quality Statement 2: Patient History	
Quality Statement	Patients presenting with headaches are assessed on the basis of a full history *(see Patient History Guide)* and headache-specific questionnaire (such as HIT-6) to assess the impact of the headache and to assist in informing a diagnosis.
Quality Measures	**Structure:** Evidence of practice policies relating to the assessment of patients with headache, including the use of headache-specific questionnaires. **Process 1:** Proportion of patients presenting with headache that have a record in their clinical notes of a detailed headache-specific history. **Numerator 1:** The number of patients in the denominator in which a detailed headache-specific history has been recorded in their clinical notes. **Denominator 1:** The total number of patients presenting with headache. **Process 2:** Proportion of patients presenting with headache that have completed a headache-specific questionnaire. **Numerator 2:** The number of patients in the denominator in which a headache-specific questionnaire has been completed. **Denominator 2:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that they are taking a comprehensive headache-specific history and using headache-specific questionnaires for all patients presenting with headache. **Commissioners** should ensure that the necessary policies and procedures are in place to carry out and record a detailed headache specific history, and to use headache-specific questionnaires. **Patients** with headache should expect to have a detailed history taken and asked to complete a questionnaire about their headaches.
Sources	3 British Association for the Study of Headache (BASH): Guidelines for All Healthcare Professionals in the Diagnosis and Management of Migraine, Tension-Type, Cluster and Medication-Overuse Headache, 3rd Edition (September 2010) 6 NICE Clinical Guideline 150 - Headaches in over 12s: diagnosis and management (September 2012, updated November 2015) 8 Institute for Clinical Systems Improvement (ICSI) Health Care Guideline: Diagnosis and Treatment of Headache - Eleventh Edition (January 2013) 9 Haywood KL et al. Assessing the impact of headaches and the outcomes of treatment: A systematic review of patient-reported outcome measures (PROMS). Cephalalgia 2018; 38(7): 1374-1386 14 Steiner TJ et al. Aids to management of headache disorders in primary care (2nd edition) - on behalf of the European Headache Federation and Lifting The Burden: the Global Campaign against Headache. The Journal of Headache and Pain 2019; 20(1): 57 28 Toward Optimized Practice (TOP) Headache Working Group - Primary care management of headache in adults: clinical practice guideline: 2nd edition (September 2016) 29 Chinthapalli K et al. Assessment of acute headache in adults - what the general physician needs to know. Clinical Medicine (RCP) 2018; 18(5): 422-427 30 Becker JB et al. Guideline for primary care management of headache in adults. Can Fam Physician 2015; 61(8): 670-679 31 Fisher L. Assessment of patients presenting with headache. InnovAiT (RCGP); 5(11): 645-652

Chiropractic Quality Statement 3: Clinical Examination	
Quality Statement	The assessment of patients presenting with headaches includes a thorough clinical examination, which includes a detailed neurological evaluation (including cranial nerves), and blood pressure measurement.
Quality Measure	**Structure:** Evidence of practice policies and procedures relating to the clinical examination of patients with headache, including a detailed neurological evaluation and the assessment of blood pressure. **Process:** Proportion of patient presenting with headache having a record in their clinical notes of a detailed clinical examination (including cranial nerve and blood pressure testing). **Numerator:** The number of patients in the denominator in which a detailed clinical examination (including cranial nerve and blood pressure testing) has been recorded in their clinical notes. **Denominator:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that they are carrying out a thorough clinical examination, which includes a detailed neurological evaluation (including cranial nerves) and blood pressure measurement, of all patients presenting with headache. **Commissioners** should ensure that the necessary policies and procedures are in place to carry out and record the findings of a thorough clinical examination of patients presenting with headache. **Patients** with headache should expect to undergo a thorough examination, including a detailed assessment of nerve function and blood pressure measurement.
Sources	3 British Association for the Study of Headache (BASH): Guidelines for All Healthcare Professionals in the Diagnosis and Management of Migraine, Tension-Type, Cluster and Medication-Overuse Headache, 3rd Edition (September 2010) 8 Institute for Clinical Systems Improvement (ICSI) Health Care Guideline: Diagnosis and Treatment of Headache - Eleventh Edition (January 2013) 10 NICE Clinical Knowledge Summaries: Headache - Assessment (Last revised October 2019) 11 Mollan SP et al. Raised intracranial pressure in those presenting with headache. BMJ 2018; 363: k3252 17 Kerry R et al. Manual therapy and cervical artery dysfunction, directors for the future: a clinical perspective. The Journal of Manual & Manipulative Therapy 2008; 16(1): 39-48 28 Toward Optimized Practice (TOP) Headache Working Group - Primary care management of headache in adults: clinical practice guideline: 2nd edition (September 2016) 30 Becker JB et al. Guideline for primary care management of headache in adults. Can Fam Physician 2015; 61(8): 670-679 31 Fisher L. Assessment of patients presenting with headache. InnovAiT (RCGP); 5(11): 645-652 32 British Association for the Study of Headache (BASH): National Headache Management System for Adults 2019

Chiropractic Quality Statement 4: Red Flags	
Quality Statement	Patients presenting with headaches will be assessed for signs and symptoms of potential serious pathology *(see Guide to Red Flags)* and immediate referral facilitated, if appropriate.
Quality Measure	**Structure:** Evidence of practice policies and procedures regarding the assessment for signs and symptoms of potential serious pathology (red flags), and appropriate referrals, of patients presenting with headache. **Process:** Proportion of patients with headache who have been assessed for signs and symptoms of potential serious pathology. **Numerator:** The number of patients in the denominator who have been assessed for signs and symptoms of potential serious pathology. **Denominator:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should assess patient with headache for signs and symptoms of potential serious pathology (red flags) and make appropriate referrals. **Commissioners** should expect to see policies and procedures on the assessment of patients with headache for signs and symptoms of potential serious pathology (red flags), and on appropriate referral policies. **Patients** with headache should expect to be assessed for the signs and symptoms of potential serious pathology, and immediately referred if any concerns are identified.
Sources	3 British Association for the Study of Headache (BASH): Guidelines for All Healthcare Professionals in the Diagnosis and Management of Migraine, Tension-Type, Cluster and Medication-Overuse Headache, 3rd Edition (September 2010) 6 NICE Clinical Guideline 150 - Headaches in over 12s: diagnosis and management (September 2012, updated November 2015) 8 Institute for Clinical Systems Improvement (ICSI) Health Care Guideline: Diagnosis and Treatment of Headache - Eleventh Edition (January 2013) 10 NICE Clinical Knowledge Summaries: Headache - Assessment (Last revised October 2019) 14 Steiner TJ et al. Aids to management of headache disorders in primary care (2nd edition) - on behalf of the European Headache Federation and Lifting The Burden: the Global Campaign against Headache. The Journal of Headache and Pain 2019; 20(1): 57 15 Robertson JJ et al. Cervical artery dissections: a review. The Journal of Emergency Medicine 2016; 51(5): 508-518 16 Chaibi A et al. A risk-benefit assessment strategy to exclude cervical artery dissection in spinal manual-therapy: a comprehensive review. Annals of Medicine 2019; 51(2): 118-127 28 Toward Optimized Practice (TOP) Headache Working Group - Primary care management of headache in adults: clinical practice guideline: 2nd edition (September 2016) 29 Chinthapalli K et al. Assessment of acute headache in adults - what the general physician needs to know. Clinical Medicine (RCP) 2018; 18(5): 422-427 30 Becker JB et al. Guideline for primary care management of headache in adults. Can Fam Physician 2015; 61(8): 670-679 31 Fisher L. Assessment of patients presenting with headache. InnovAiT (RCGP); 5(11): 645-652

Chiropractic Quality Statement 5: Diagnostic Imaging	
Quality Statement	Routine diagnostic imaging (including x-rays, CT and MRI) is not required for patients presenting with headache, but should be considered if onset was traumatic or if neurological testing warrants.
Quality Measures	**Structure:** Evidence of practice policy with regard to the use of diagnostic imaging for patients presenting with headache. **Process 1:** Proportion of patients with headache receiving diagnostic imaging. **Numerator 1:** The number of patients in the denominator having received diagnostic imaging. **Denominator 1:** The total number of patients presenting with headache. **Process 2:** Proportion of patients with headache for which there is documented evidence of trauma or neurological findings that provide clinical justification for diagnostic imaging having been performed. **Numerator 2:** The number of patients in the denominator with documented evidence of trauma or neurological findings that provide clinical justification for diagnostic imaging to have been performed. **Denominator 2:** The total number of patients presenting with headache for whom diagnostic imaging was performed.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that diagnostic imaging is not routinely performed for patients with headache, but considered if onset was traumatic or if neurological testing warrants. **Commissioners** should not expect diagnostic imaging is be standard practice for patients with headache, but something that may be considered in cases of traumatic onset or if neurological testing warrants. **Patients** should not expect to have an x-ray or scan if presenting with headache, but that it would be considered if clinically appropriate.
Sources	6 NICE Clinical Guideline 150 - Headaches in over 12s: diagnosis and management (September 2012, updated November 2015) 8 Institute for Clinical Systems Improvement (ICSI) Health Care Guideline: Diagnosis and Treatment of Headache - Eleventh Edition (January 2013) 12 NICE Quality Standard 42 - Headaches in over 12s (August 2013) 13 Douglas A et al. ACR Appropriateness Criteria Headache. Journal of the American College of Radiology 2014; 11(7): 657-667 28 Toward Optimized Practice (TOP) Headache Working Group - Primary care management of headache in adults: clinical practice guideline: 2nd edition (September 2016) 29 Chinthapalli K et al. Assessment of acute headache in adults - what the general physician needs to know. Clinical Medicine (RCP) 2018; 18(5): 422-427 33 ACR Appropriateness Criteria: Headache. American College of Radiology (Revised 2019) 34 Holle D et al. The role of neuroimaging in the diagnosis of headache disorders. Therapeutic Advances in Neurological Disorders 2013; 6(6): 369-374 35 Choosing Wisely - Imaging tests for headache. The ABIM Foundation and the American College of Radiology

Chiropractic Quality Statement 6: Patient Explanations	
Quality Statement	Patients with headaches are given an explanation of their likely headache type *(see Diagnostic Flowchart)*, an initial diagnosis, any suspected causal factors, details of different treatment options, and an expected prognosis. Patients are also given information on the risk of medication-overuse headache.
Quality Measure	**Structure:** Evidence of practice policies relating to patient communication and the giving of detailed explanation and information about patients' conditions. **Process:** Proportion of patients with headache who have received an explanation of their condition, including a diagnosis, causal factors, treatment options, an expected prognosis and the risk of medication-overuse headache. **Numerator:** The number of patients in the denominator who have been given an explanation of their condition, including a diagnosis, causal factors, treatment options, an expected prognosis and the risk of medication-overuse headache. **Denominator:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that appropriate time is allocated to give accurate, relevant and clear information to patients with headache about their condition, including a diagnosis, causal factors, treatment options, an expected prognosis and the risk of medication-overuse headache. **Commissioners** should seek evidence from chiropractors that patients with headache are given an explanation of their condition, including a diagnosis, causal factors, treatment options, an expected prognosis and the risk of medication-overuse headache. **Patients** with headache should expect to be given an explanation of their condition and what might have caused it, together with details of treatment options and the likely outcomes.
Sources	5 Headache Classification Committee of the International Headache Society (HIS). The International Classification of Headache Disorders, 3rd Edition. Cephalalgia 2018; 38(1): 1-211 6 NICE Clinical Guideline 150 - Headaches in over 12s: diagnosis and management (September 2012, updated November 2015) 14 Steiner TJ et al. Aids to management of headache disorders in primary care (2nd edition) - on behalf of the European Headache Federation and Lifting The Burden: the Global Campaign against Headache. The Journal of Headache and Pain 2019; 20(1): 57 22 Côté P et al. Non-pharmacological management of persistent headaches associated with neck pain: A clinical practice guideline from the Ontario protocol for traffic injury management (OPTIMa) collaboration. European Journal of Pain 2019; 23(6): 1051-1070 36 The Code: Standards of conduct, performance and ethics for chiropractors. The General Chiropractic Council (June 2016) 37 NICE Clinical Guideline 138 - Patient experience in adult NHS services (February 2012) 38 Supporting People with Long Term Conditions, Commissioning Personal Care Planning, A Guide for Commissioners - Department of Health (January 2009)

Chiropractic Quality Statement 7: Plan of Care	
Quality Statement	A plan of care is formulated in partnership with patients presenting with headache which considers their personal preferences, but aims to reduce symptoms and increase the ability to function. The plan of care includes a formal review within four weeks of the commencement of treatment.
Quality Measure	**Structure:** Evidence of practice policies and procedures with regard to care plans, the consideration of patients' personal preferences, the aims of care, and early reviews. **Process:** Proportion of patients with headache who have actively participated in developing a care plan that addresses both symptom relief and the ability to function, and includes a formal review. **Numerator:** The number of patients in the denominator who have actively participated in developing a care plan that addresses both symptom relief and the ability to function, and includes a formal review. **Denominator:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that patients with headache are actively involved in developing care plans that address both symptom relief and the ability to function, and include a formal review. **Commissioners** should look for evidence from chiropractors that they are actively involving patients with headache in developing care plans that address both symptom relief and the ability to function, and include a formal review. **Patients** with headache should expect to be actively involved in developing a care plan (that will be reviewed) which aims to both reduce their symptoms and improve their ability to function.
Sources	6 NICE Clinical Guideline 150 - Headaches in over 12s: diagnosis and management (September 2012, updated November 2015) 14 Steiner TJ et al. Aids to management of headache disorders in primary care (2nd edition) - on behalf of the European Headache Federation and Lifting The Burden: the Global Campaign against Headache. The Journal of Headache and Pain 2019; 20(1): 57 22 Côté P et al. Non-pharmacological management of persistent headaches associated with neck pain: A clinical practice guideline from the Ontario protocol for traffic injury management (OPTIMa) collaboration. European Journal of Pain 2019; 23(6): 1051-1070 28 Toward Optimized Practice (TOP) Headache Working Group - Primary care management of headache in adults: clinical practice guideline: 2nd edition (September 2016) 36 The Code: Standards of conduct, performance and ethics for chiropractors. The General Chiropractic Council (June 2016) 37 NICE Clinical Guideline 138 - Patient experience in adult NHS services (February 2012) 38 Supporting People with Long Term Conditions, Commissioning Personal Care Planning, A Guide for Commissioners - Department of Health (January 2009)

Chiropractic Quality Statement 8: Informed Consent	
Quality Statement	Patient with headaches are asked to consent to treatment after they have received an explanation of the risks and benefits of treatment, the likely outcomes with and without treatment, and a plan of care has been agreed.
Quality Measure	**Structure:** Evidence of practice policies relating to consent, and the information supplied to patients prior to consent being sought. **Process:** Proportion of patients with headache that have consented to treatment following an explanation of the risks, benefits and likely outcomes, and once a plan of care has been agreed. **Numerator:** The number of patients in the denominator who have consented to treatment following an explanation of the risks, benefits and likely outcomes, and after agreeing a plan of care. **Denominator:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that the risks, benefits and likely outcomes have been explained to patients with headache, and a plan of care agreed, prior to consent to treatment being requested and documented. **Commissioners** need to ensure that chiropractors have a consent policy in place, in which patients with headache are given information about the risks, benefits, and likely outcomes of treatment, and an agreed plan of care, prior to consent being given. **Patients** with headache should expect to be given information about the risks and benefits of treatment, the likely outcomes both with and without treatment, and have agreed a plan of care, before being asked to consent to receiving treatment.
Sources	36 The Code: Standards of conduct, performance and ethics for chiropractors. The General Chiropractic Council (June 2016) 37 NICE Clinical Guideline 138 - Patient experience in adult NHS services (February 2012)

Chiropractic Quality Statement 9: Package of Care	
Quality Statement	Patients with headaches are managed according to their headache type, but should expect to be treated with an individualised package of care, which might include manual therapies, exercise and lifestyle advice, acupuncture, cognitive behaviour interventions, and often concurrent management with other healthcare professionals, particularly with regard to medication.
Quality Measure	**Structure:** Evidence of practice policy on the provision of a package of care for the treatment of headache which might include manual therapies, exercise and lifestyle advice, and cognitive behaviour interventions. **Process:** Proportion of patients with headache who are treated with a package of care, which may include manual therapies, exercise and lifestyle advice, and cognitive behaviour interventions. **Numerator:** The number of patients in the denominator who receive a package of care, which may include manual therapies, exercise and lifestyle advice, and cognitive behaviour interventions. **Denominator:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should provide an individualised package of care for the treatment of headache that may include manual therapies, exercise and lifestyle advice, and cognitive behaviour interventions. **Commissioners** should seek evidence that patients with headache are treated with a package of care that may include manual therapies, exercise and lifestyle advice, and cognitive behaviour interventions. **Patients** with headache should expect to be treated with a number of different techniques, depending on their individual circumstances, which might include advice and information, manipulation and/or mobilisation, soft tissue therapies, acupuncture, exercises and addressing the psychological and social implications associated with headache and chronic pain.
Sources	3 British Association for the Study of Headache (BASH): Guidelines for All Healthcare Professionals in the Diagnosis and Management of Migraine, Tension-Type, Cluster and Medication-Overuse Headache, 3rd Edition (September 2010) 6 NICE Clinical Guideline 150 - Headaches in over 12s: diagnosis and management (September 2012, updated November 2015) 8 Institute for Clinical Systems Improvement (ICSI) Health Care Guideline: Diagnosis and Treatment of Headache - Eleventh Edition (January 2013) 14 Steiner TJ et al. Aids to management of headache disorders in primary care (2nd edition) - on behalf of the European Headache Federation and Lifting The Burden: the Global Campaign against Headache. The Journal of Headache and Pain 2019; 20(1): 57 18 Varatharajan S et al. Are non-invasive interventions effective for the management of headaches associated with neck pain? An update of the Bone and Joint Decade Task Force on Neck Pain and Its Associated Disorders but he Ontario Protocol for Traffic Injury Management (OPTIMa) Collaboration. European Spine Journal 2016; 25(7): 1971-1999 19 Bronfort G et al. Effectiveness of manual therapies: the UK evidence report. Chiropractic & Osteopathy 2010; 18:3 20 Canadian Chiropractic Association and the Canadian Federation of Chiropractic Regulatory and Education Accrediting Boards, Clinical Practice Guidelines Project (The CCA-CFCREAB-CPG): Clinical Practice Guideline for the Management of Headache Disorders in Adults (January 2012) 21 Fernández-de-las-Peñas et al. Physical Therapy for Headaches. Cephalalgia 2016; 36(12): 1134-1142 22 Côté P et al. Non-pharmacological management of persistent headaches associated with neck pain: A clinical practice guideline from the Ontario

protocol for traffic injury management (OPTIMa) collaboration. European Journal of Pain 2019; 23(6): 1051-1070

23 Maistrello LF et al. Manual therapy and quality of life in people with headache: systematic review and meta-analysis of randomized controlled trials. Current Pain and Headache Reports 2019; 23(10): 78

28 Toward Optimized Practice (TOP) Headache Working Group - Primary care management of headache in adults: clinical practice guideline: 2nd edition (September 2016)

Chiropractic Quality Statement 10: Interprofessional Collaboration	
Quality Statement	When managing patients with headache, chiropractors are attentive to the involvement of other health professionals, the medications that patients are taking, and write reports of their findings and management to the patient's GP. Chiropractors recognise their own limitations in the diagnosis and management of headache, and refer to other healthcare professionals, as appropriate.
Quality Measure	**Structure:** Evidence of practice policy with regard to recognising the role of other healthcare professionals in the management of patients with headache, keeping them informed of assessment and care, and the need for appropriate referrals. **Process:** Proportion of patients with headache, who have had a detailed report written to their GP. **Numerator:** The number of patients in the denominator who have had a detailed report written to their GP. **Denominator:** The total number of patients presenting with headache.
Description of what the quality statement means for each audience	**Chiropractors** should be mindful of the role of other healthcare professionals in the assessment and management of patients with headache, and write detailed reports on their findings and management, as well as making appropriate referrals. **Commissioners** should seek evidence of chiropractors providing multidisciplinary care by informing and collaborating with other healthcare professional for the benefit of patients, as well as writing reports and referring patients as appropriate. **Patients** with headache, should expect their chiropractor to be aware of the role of other healthcare professionals, to write to their GP, and to refer them if they feel that it is in their best interests.
Sources	36 The Code: Standards of conduct, performance and ethics for chiropractors. The General Chiropractic Council (June 2016) 39 Guidelines for Pain Management Programmes for Adults - The British Pain Society (November 2013) 40 Gaul C et al. Team players against headache: multidisciplinary treatment of primary headaches and medication overuse headaches. J Headache Pain 2011; 12(5): 511-519

Chiropractic Quality Statement 11: Monitoring and Reassessment	
Quality Statement	The progress of patients with headache is continually kept under review with regular formal reassessments, the use of validated outcome tools, and potential referral to another healthcare professional, particularly if they show no demonstrable signs of improvement within four to eight weeks.
Quality Measures	**Structure:** Evidence of practice policy with regard to the regular assessment of patients, the use of outcome measures, and the consideration of referral for those who do not show demonstrable signs of improvement. **Process 1:** Proportion of patients with headache who are reassessed on a regularly basis, including the use of outcome measures. **Numerator 1:** The number of patients in the denominator who have been formally reassessed on a regular basis, including the use of outcome measures. **Denominator 1:** The total number of patients presenting with headache. **Process 2:** Proportion of patients presenting with headache that are referred if their condition shows no demonstrable signs of improvement within eight weeks. **Numerator 2:** The number of patients in the denominator who have been referred having shown no demonstrable signs of improvement within eight weeks. **Denominator 2:** The total number of patients presenting with headache who have shown no demonstrable signs of improvement within eight weeks.
Description of what the quality statement means for each audience	**Chiropractors** should regularly assess patients with headache, use validated outcome measures, and consider a referral if they show no demonstrable signs of improvement within four to eight weeks. **Commissioners** should expect to see policies on reassessments and referrals stating that patients with headache will be regularly assessed (including with the use of outcome tools), and referrals considered if they show no demonstrable signs of significant improvement within four to eight weeks. **Patients** with headache should expect to be regularly assessed, and a referral considered if they show no signs of improvement within four to eight weeks.
Sources	6 NICE Clinical Guideline 150 - Headaches in over 12s: diagnosis and management (September 2012, updated November 2015) 8 Institute for Clinical Systems Improvement (ICSI) Health Care Guideline: Diagnosis and Treatment of Headache - Eleventh Edition (January 2013) 14 Steiner TJ et al. Aids to management of headache disorders in primary care (2nd edition) - on behalf of the European Headache Federation and Lifting The Burden: the Global Campaign against Headache. The Journal of Headache and Pain 2019; 20(1): 57 22 Côté P et al. Non-pharmacological management of persistent headaches associated with neck pain: A clinical practice guideline from the Ontario protocol for traffic injury management (OPTIMa) collaboration. European Journal of Pain 2019; 23(6): 1051-1070 38 Supporting People with Long Term Conditions, Commissioning Personal Care Planning, A Guide for Commissioners - Department of Health (January 2009) 36 The Code: Standards of conduct, performance and ethics for chiropractors. The General Chiropractic Council (June 2016)

Chiropractic Quality Statement 12: Supported Self-Management	
Quality Statement	Patients with headache are discharged from acute care once signs and symptoms become manageable or are absent. Ongoing supportive self-management, including rehabilitation and prophylactic care, is offered, depending on the headache type.
Quality Measure	**Structure:** Evidence of practice policies regarding the discharge of patients from acute care and the provision of ongoing supportive self-management, including rehabilitation and prophylactic care, for patients with headache once their signs and symptoms have become manageable or resolved. **Process:** Proportion of patients that, once their signs and symptoms have become manageable or resolved, are offered ongoing supportive self-management, including rehabilitation and prophylactic care. **Numerator:** The number of patients in the denominator who, once their signs and symptoms have become manageable or resolved, have been offered ongoing supportive self-management, including rehabilitation and prophylactic care. **Denominator:** The total number of patients presenting with headache whose signs and symptoms have become manageable or resolved.
Description of what the quality statement means for each audience	**Chiropractors** should ensure that, once their signs and symptoms have become manageable or resolved, patients with headache are offered ongoing supportive self-management, including rehabilitation and prophylactic care. **Commissioners** should seek evidence that, once their signs and symptoms have become manageable or resolved, patients with headache are offered ongoing supportive self-management, including rehabilitation and prophylactic care. **Patients** with headache should expect, once their signs and symptoms have become manageable or resolved, to be offered ongoing support to help themselves to manage their condition, including rehabilitation and preventative care.
Sources	22 Côté P et al. Non-pharmacological management of persistent headaches associated with neck pain: A clinical practice guideline from the Ontario protocol for traffic injury management (OPTIMa) collaboration. European Journal of Pain 2019; 23(6): 1051-1070 28 Toward Optimized Practice (TOP) Headache Working Group - Primary care management of headache in adults: clinical practice guideline: 2nd edition (September 2016) 39 Guidelines for Pain Management Programmes for Adults - The British Pain Society (November 2013)

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