Headache

Paper prepared by
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Network Clinical Lead

Purpose
This paper provides information on current work within the Northern SCN area for patients with headache. It is intended to be read alongside the national headache paper.

Version Control:

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<th>Purpose / Change</th>
<th>Author</th>
<th>Date</th>
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<td>Claire Braid / Paul Goldsmith</td>
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<td>V0.2</td>
<td>Diagrams added and amendments to text by PG.</td>
<td>Paul Goldsmith</td>
<td>31 Aug 2014</td>
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<td>V0.3</td>
<td>Additional pathway information added.</td>
<td>Claire Braid</td>
<td>1 Oct 2014</td>
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Executive summary

Headaches are very common. Most of neurology is outpatient based and headaches are the commonest cause for referral. Most headaches presenting to emergency departments are benign. The majority of outpatient referrals and many emergency department attendances could be avoided by better education of doctors and patients. The most effective way of achieving this is through:

1. Altered referral pathways for non acute headaches linked to a modified Advice and Guidance implementation

2. Consistency of protocol implementation through education of emergency care teams

Headache facts

- there is an 80% increase in headaches in patients who are overweight
- good sleep hygiene, regular exercise and a structured daily routine are important lifestyle preventative measures
- the principle cause of chronic daily headache is the regular consumption of prescription and over-the-counter pain killers
1ry/2ry integration: A&G: Headache pathway

CORE PRINCIPLES
- Continuity of care with a single named neurologist
- Relationship-based primary care-C2C interaction, not purely transactional
- Encourage neurologists to outsource
- Facilitate CPD (compulsory education)
- Provide never to prescribe from patients to 2ry care referral

A&G = Advice & Guidance
C&G = Choose & Book
Measurables

The aim of the headache project in the Northern SCN patch is to achieve the following proposed outcomes:

- educational modules for GPs and support materials for patients available for use by December 2014
- each GP to have a named support neurologist with dedicated clinic slots, including advice and guidance support by April 2015 for one CCG
- each GP to have a named support neurologist with dedicated clinic slots, including advice and guidance support by April 2016 for all CCGs
- educational modules for ENT, A&E/MAU, stroke team, available for use by February 2015 and incorporated into Breeze (or equivalent) as mandatory element by April 2015; >80% completion by April 2016
- patient education leaflets included in all headache prescription packs by pharmacists, highlighting lifestyle factors
- all patients with migraines to have an acute headache management plan

ROI

- 30% decrease in number of patients seen face-to-face in neurology clinic by Oct 2015 in CCG areas embracing SCN proposals
- 50% decrease in headache referrals to neurology from A&E, ENT and stroke team by April 2016
- 30% decrease in attendance at A&E of patients with non-serious headaches by April 2017
Introduction and background

In April 2013, twelve Strategic Clinical Networks (SCNs) were introduced to the new NHS structures for England. Working within the Mental Health, Dementia and Neurological Conditions Network, each area has been tasked with improving services for people with neurological conditions. During the first year of operation, there has been time invested in reviewing evidence and speaking to local stakeholders about areas of health and social care which warrant large scale change. Headache was identified as an area that has a significant impact on neurology services and there is scope to improve the management of this condition.

In April 2014, it was agreed that headache would form one of the national priorities for the Neurological Conditions Strategic Clinical Networks. A national working group was subsequently set up to identify any existing pathways, share good practice and develop a common integrated care pathway for local adaptation and use. A national document was produced (1), with comprehensive information on the rationale, background and evidence base to this project and a compendium of known pathways, protocol and guidance. This document is intended to be read in conjunction with the national paper.

Local data

The SCN Business Support Team identified local data on headache and migraine, in terms of admission episodes (primary and mentions), emergency admissions, Choose and Book referrals, prescribing and imaging. The available data indicates that the Northern SCN area is broadly in line with national averages for admission rates, but there are some outliers. For emergency admission rates per 100,000 population, two CCG areas within the Northern SCN area are among the highest nationally (see Appendix 1, Charts 28 and 29).

In terms of referrals to neurology via Choose and Book, there is wide variation across the Northern SCN area with a three-fold increase between the lowest and highest referral rates (Appendix 1, Chart 30). Prescribing rates and daily usage of headache
preparations are both higher than the national average in almost every Northern SCN CCG area.

With regard to the diagnostic imaging data, this is a fairly new dataset and there is some uncertainty around completeness of data. This means variation within this could be due to poor data quality rather than actual activity.

**Known local guidelines / protocol**

A scoping exercise was carried out to identify any existing guidelines or protocol currently in use in Emergency Departments (ED) across the Northern SCN geography. South Tyneside NHS Foundation Trust has recently developed protocol for headache screening in the ED and for suspected subarachnoid haemorrhage (Appendix 2). City Hospitals Sunderland NHS Foundation Trust has developed an urgent neurology clinic, within which headache is included, with a specific headache pathway. Patients with headache accounted for 52% of referrals to the clinic. This model has been locally audited and has been found to have significantly reduced waiting times for people requiring urgent neurology assessment (Appendix 3).

Other district general hospital emergency departments across the area reported having protocol in place for suspected subarachnoid haemorrhage, linked to neurosurgery at the local specialist centre. In areas where there is no specific pathway for suspected subarachnoid haemorrhage, clinicians discuss individual patients with identified ‘red flags’ or abnormal brain images with their local neurosurgeons and a decision about care is made. Patients presenting with acute severe headache are considered a high risk group and due to this, some emergency departments mandate that these patients are discussed with a senior member of staff.

Some departments are currently using the College of Emergency Medicine guidelines for acute severe headache (2). There are a number of emergency departments that are able to refer patients to a local urgent neurology clinic, either on-site or at their nearest specialist centre. These clinics are run by an on-call neurologist. Many organisations had no specific pathway or protocol in place for patients presenting to emergency
departments with headache. Attempts have been made by individual organisations to develop local pathways and protocol for headache, but these were unsuccessful. Concerns were expressed about the practicality of such tools, due to the wide range of pathology for headache. In one organisation, headache patients who present at the emergency department can be triaged into the on-site ambulatory care centre, where this patient group make up a significant proportion of Consultant work. This service is staffed by acute care physicians. Another pragmatic concern raised by a number of emergency departments is the inability to access patients’ neurology records. It was expressed that if district general hospital staff had access to these records, it could influence decisions to admit, length of stay and decision to discharge, for example, if a management plan was already in place and accessible.

Some requested 7 days per week neurologist provision in each district general hospital. It was noted that this would require an enormous expansion in neurologist posts from the current level and that even if funding for this was forthcoming, given the inability to adequately fill currently available neurology posts this was not a realistic option without a major change in training numbers and how trainee recruitment is organised.

**Flags for cross cutting SCN work:**

Integration of records across providers needed

Workforce planning review and recruitment strategy needed
**Proposals for Implementation**

Linked with the national work on headache, a number of proposals have been made for local implementation. These include:

- Standardised protocol, adapted from national work for local implementation;
- Education videos for emergency care and primary care staff on management of headache (currently being developed by London SCN);
- Development of an acute self-management plan for patients with diagnosed migraine who attend emergency departments more than once;
- Improved chronic headache management in primary care settings, linked with community pharmacy.

**Implementation Plans:**

A regional working group will develop a consensus protocol, based on local and national good practice examples.

**Emergency department:**

- Protocol driven
- Patients seen in A&E more than once with migraine to be identified from database and receive acute headache self-management plan
- Develop protocols, plus online modular training as part of periodic Dr/Nurse training requirements
Primary care (GP to Neurologist)

This element will include online education modules and an advice and guidance mechanism between GPs and neurology, as described below:

- Patient attends GP surgery with chronic headache
- GP is not allowed to automatically refer to neurology, but instead the pathway is to ask for advice, e.g. through advice and guidance. The link neurologist (or specialist nurse, GPSI) can then convert to face to face consultation if required.

Logic is that once referral made, expectation is set and it is difficult to cancel this. Also, without this Advice & Guidance barrier, some GPs will not be motivated to learn. GPs identified as requiring training in headache management to have online educational modules put on their yearly requirement or invited to sit in on neuro clinic

Investigations proposals:

- No direct access for brain MRI for GPs
- No cervical spine MRs for headache without written rationale
- Neuroimaging to be reported by a neuroradiologist
Modified Advice and Guidance:

Emerging goals from the national SCN working group are to enable better self-management of headaches and better community management. Education of GP and patients is core to this.

In terms of local implementation this fits with a modified advice and guidance system.

Advice and guidance has been used in two directorates in Newcastle Hospitals – Ophthalmology and Ear, Nose and Throat (ENT). It failed in ENT with only very occasional referral. In Ophthalmology it was regarded as successful, although when one interrogates numbers seen this was still relatively low. One of the reasons why there was a greater logic in Ophthalmology was that quite a lot of referrals are generated from findings made by opticians at routine eye examinations, often with spurious findings. Therefore the Ophthalmologist was able to avoid the need for a face-to-face consultation by reviewing online visual fields or other optician-generated finding.

Running advice and guidance through Choose and Book is feasible for such single interactions and review of a piece of data. However there are important constraints in the system;

1. The quality of the advice offered is dependent on the information put in. When this is something objective like a visual field it is much easier than when it is a more complex question. We know more broadly from Choose and Book that with the anonymity that this brings- as currently configured locally, the GP does not know which consultant the letter is going to-the tendency for letter quality to go down and conversely the potential for a lesser degree of education and support to be offered by the consultant.

2. Ideally, if necessary, there is a dialogue between GP and neurologist. Configuration of Choose and Book previously did not permit this. Even when one is restricted to a fixed single asynchronous return of information, if one is not offering the personal follow through for when additional advice is required, or the response to an intervention, then there is a potential for narrower advice to be given.

The importance of developing educational modules has been recognised in the SCN and a suite of GP training modules as well as information for patients is in development.
A community outreach clinic was piloted in Hexham five years ago and has anecdotally proven to be extremely popular and successful, for both the local GPs and the neurologist involved. It is important to reflect on the reasons for this. Foremost has been the opportunity to build relationships with local GPs because they know which neurologist they are dealing with, rather than the anonymity of Choose and Book. Informal advice and guidance is offered through email, because of the previous restraints from commissioning and technical aspects of Choose and Book. A virtuous upward circle in quality of referrals and quality of return letter with education has occurred. It has allowed a return to relationship-based medicine rather than transactional medicine.

There is a desire from Northumberland CCG to rollout this model across all of Northumberland and to move to a federation model with the federations serving a “hospital without walls” purpose, bringing together primary and secondary care individuals. Note that this may be within a particular building in the community, but does not need to be and may happen virtually.

Therefore the model which is proposed is that for each federation of GP practices (where so configured) or suitable geographical area (where federations aren’t planned) a single named neurologist exists. A certain number of Choose and Book slots are then restricted to GPs from that area. If they are not all filled then the slots are opened up more broadly. That neurologist has a particular responsibility for more general education and support of those GPs.

Within the Choose and Book template, advice and guidance slots are configured in such a way to provide flexibility but also speed of return of information. If possible a continuing dialogue is permitted within one advice encounter.

We know that many patients with headache who are referred to neurology could have been managed in the community. Often this relates to either lack of GP knowledge, the patient demand for a secondary care review or that another means of providing reassurance to GP and patient was not available.

It is difficult to cancel a face-to-face Choose and Book appointment once it has already been set up because of the patient expectation.

It can be difficult to judge whether the patient does indeed need to be seen or not.
The proposed way to address this is that by default GPs cannot automatically book a face-to-face appointment for headaches, but instead make the request through advice and guidance. This is then used to provide directed education to those GPs who are particularly inexperienced in headache management (e.g. using the London SCN education tools being developed), as well as specific advice to a patient through online materials, information sheets or bespoke advice. If the patient does need to be seen face-to-face then the encounter is converted to a conventional Choose and Book slot.

There is a strong logic to this in that matching supply and demand is only going to be possible with radical solutions; headaches represent the largest volume of activity and to effect change and relieve the referral pressures GPs are put under, for them to be able to say that this is the process removes those discussions. Importantly the patient is still getting specialist advice.

The exact parameters under which this is configured, namely how many slots a particular GP patch is allocated, then dovetails with commissioning discussions and issues of breech. For example a particular CCG will then be protected in their “neurology purchase” from slots being taken from other areas. Whether or not removal of the ability to make a direct referral for face-to-face interaction without the intervening step would also be decided by negotiation with a particular CCG.

Note that circumstances of suspected cancer, temporal arteritis whether emergent contusion would still be able to get direct access, but such cases would in any case go to rheumatology, be managed through direct access CT scanning, or to ophthalmology, or to the emergency neurology clinic.
Pharmacy component:

Patient attends pharmacy to pick up repeat prescription for pain killers, or ask for HA advice.

Pharmacist provides additional literature and signposts according to underlying headache type.
If analgesic overuse headache possibility, provide information to patient and flag to GP.

London – developing educational resources; to include pharmacist training and patient material, inc videos.
References


APPENDICES

1. Northern England Strategic Clinical Networks
2. South Tyneside NHS Foundation Trust Protocol
Finished admission episodes with a primary diagnosis of headache nationally account for 4.3% of neurology admissions. For CCGs in the network area, headache admissions range from 3.2% in Newcastle North & East to 9.3% on North Tyneside of all neurological admissions.

Emergency Admissions with a primary diagnosis of headache nationally account for 7.6% of all neurological emergency admissions; across the network headache accounts for between 6.8% in Cumbria and 21% in North Tyneside.

Admissions where headache is mentioned represent 3.1% of all neurological admissions – most network CCGs are lower than this with rates ranging from 1.6% in Hambleton, Richmondshire & Whitby to 3.3% in Durham Dales, Easington & Sedgefield. Hartlepool and Stockton (3.9%); North Tyneside (8.2%) and Northumberland (9.3%) are the only CCGs which have rates which are higher than the national average.

Nationally, 3.4% of emergency admissions with a neurological mention have a mention of headache. Once again, network CCGs are broadly in line with this. Rates range from 2.4% in Gateshead to 3.9% in Durham Dales, Easington &
Sedgefield; Hartlepool & Stockton (4.8%); North Tyneside (8.3%) and Northumberland (9.3%) remain outliers.

Chart 27 - Admission Episodes – Mentions

Chart 28 - Emergency Admissions - Primary
Rates per 100,000 population for emergency admissions with a primary diagnosis of Headache are generally higher across network CCGS than the national average, but in most cases differences are not significant. Northumberland and North Tyneside are both significantly above the national average, and other network CCGs, and are among the highest rates nationally.

For emergency admissions where headache is mentioned rates show a similar pattern with the same two CCGs as outliers.
Nationally 11% of Choose & Book referrals for Neurology are attributed to Headache – for network CCGs there is a lot of variation with rates ranging from 5.5% in Cumbria to 17.6% in Gateshead – a 3-fold difference.

Chart 31 – Prescribing Totals
Prescribing rates for headache are above the national average, although net ingredient costs are either below or in line with the national average. Rates for daily usage of prescribed headache preparations are higher than the national average in almost every CCG in the network area.
The proportion of neurological imaging patients (derived from DIDS) which are headache patients varies across network CCGs, with most below the national average of 3.7%. A number of CCGs have rates above this level including Northumberland (8.8%); North Tyneside (7.5%) – both areas have high levels of emergency admissions in this cohort – Newcastle North & East (7.7%) and Newcastle West (8.7%). However this is a fairly new dataset and there have been completeness issues in the past – so some of this variation may be due to data quality issues rather than real differences in activity.
From the Diagnostic Imaging Dataset the next 2 charts show median waiting times for each test by CCG. There is some variation in the data – but this is worthy of further scrutiny as some of the numbers are very small and data completeness issues continue.
Appendix 2 - South Tyneside NHS Foundation Trust Protocol

Ambulatory Management of Headache Clinical Protocol

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<th>Version</th>
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<th>Review Date</th>
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<th>Information Asset Owner</th>
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Procedure/Policy/Protocol/ Guideline number: 

Procedure/Policy/Protocol/ Guideline type: Clinical Protocol

Date of Equality & Diversity Impact Assessment: 

CQC Outcomes 9

Background

The NHS Improving Quality (NHSIQ) programme supports the utilisation of ambulatory care in managing emergency patients:


The standard methodology applied to deciding whether a patient presenting with a symptom or a defined possible diagnosis from another Health Care Professional is to risk stratify the patient followed by the patient either entering the ambulatory care pathway through the Emergency Care Day Unit (ECDU), or being transferred to the Emergency Assessment Unit for ongoing management.

Headache is a common emergency medical presentation and the NHSIQ rate it as a moderate to high chance of being effectively managed in an ambulatory fashion, thus avoiding admission.

The Emergency Nurse Practitioner on the ECDU will be advised of patients who shall be attending on this pathway by the following routes:

1. The Patient Flow Co-ordinator: when taking an admission request from a GP or from A&E IF CRITERIA AS SET OUT IN THE PROTOCOL ARE MET
2. The GP directly ringing the ECDU IF CRITERIA AS SET OUT IN THE PROTOCOL ARE MET
3. A&E staff (or the ENP identifying patients self-attending A&E) IF CRITERIA AS SET OUT IN THE PROTOCOL ARE MET
4. The Acute Care Team IF CRITERIA AS SET OUT IN THE PROTOCOL ARE MET
5. From other areas of the hospital (e.g. out-patients, Oncology Haematology Day Unit) IF CRITERIA AS SET OUT IN THE PROTOCOL ARE MET

When patients are referred into the ECDU on this pathway, the ENP will initiate the Trust patient assessment document (if required) recording information in the following sections:

- Front page
- Presenting complaint and History of presenting complaint on page 2
- Past Medical History on page 2
- Medical systems enquiry, family history and social history on page 3
- Complete medication history on page 10
- Complete Allergies and Adverse Reaction section on page 10
- Request blood and other investigations as detailed in the pathway on page 3, and complete checklist on page 6
- Sign, name and date the assessment document on each page they have written on

Once all investigation results have returned inform the doctor to complete assessment.

The protocol is outlined on page 3 (using the GP referral as an example into the ECDU).

Note PFC: Patient Flow Co-ordinator (bleep 601); ECDU: Emergency Care Day Unit; where GP is mentioned can also insert A&E, Acute Care Team; GPs can utilise these pathways in the community to refer directly to the ECDU; CAP: Consultant Acute Physician
PFC takes a call from GP for isolated HEADACHE with no focal neurology or concern for sub-arachnoid haemorrhage, PFC should ask the following questions:

Is patient fully ambulant? There is NO neck stiffness? There is NO rash? There is NO LOC/syncope? There is NO confusion? Headache did NOT wake patient? SBP > 90? pulse <108 bpm? O2 sat >93%? Temp <37.7 degrees? Respiratory rate < 18?

IF ANSWER TO ALL ABOVE ARE YES, PFC asks GP to ask patient to attend ECDU urgently.

Patient seen by ENP for obs, BM, history, drugs, allergies, systemic enquiry, ECG, bloods sent for U&Es, FBC, LFTs, Bone screen, ESR, clotting

Patient will be reviewed by CAP/doctor.
Headache Screening Protocol in Emergency Care

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Background

Headache is a common presentation to emergency care in both primary and secondary care. NICE have produced guidelines for the diagnosis and management of primary headache disorders ([http://www.nice.org.uk/guidance/CG150](http://www.nice.org.uk/guidance/CG150)). A National Enquiry into Patient Death and Outcome (NCEPOD) published in November 2013, called Subarachnoid Haemorrhage: managing the flow ([http://www.ncepod.org.uk/2013sah.htm](http://www.ncepod.org.uk/2013sah.htm)) has identified significant failings in the diagnosis and management of this potentially devastating condition.


Headache is identified by NHSIQ as a syndrome that has a moderate to high chance of being effectively managed in an ambulatory fashion, thus avoiding admission.

The purpose of this headache screening protocol for use in adults is to act as a tool both in secondary and primary care to identify patients

1. Presenting with a headache due to a serious underlying cause, such as subarachnoid haemorrhage, thus directing them to the appropriate emergency diagnostic and management pathway.
2. Presenting to urgent care that can be managed in an ambulatory fashion and directing them into the Headache Ambulatory Care Pathway, thus avoiding admission.

3. That are best managed in primary care, and if such patients present to secondary care that they are identified allowing the initiation of primary treatment (if required) and referral back to their primary care provider.
# Headache Screening Protocol in Emergency Care

Determine acuity of headache following a review of symptoms, observations, clinical history and then an examination

<table>
<thead>
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<td>- ACUTE HEADACHE: single episode, sudden onset, lasting up to 12 hours or still present, described as severe</td>
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<tr>
<td>- Any focal neurological deficit</td>
</tr>
<tr>
<td>- Papilloedema on fundoscopy</td>
</tr>
<tr>
<td>- Associated seizure</td>
</tr>
<tr>
<td>- Rash</td>
</tr>
<tr>
<td>- Temperature &gt; 37.5 degrees</td>
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<tr>
<td>- GCS &lt; 15</td>
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<tr>
<td>- Any confusion or personality change</td>
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<tr>
<td>- Headache worse on standing and stooping and straining</td>
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<tr>
<td>- Unilateral red eye</td>
</tr>
<tr>
<td><strong>SCORE=1</strong>: admit to A&amp;E resuscitation/majors URGENT CT HEAD INDICATED</td>
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<tr>
<td><strong>SCORE=0</strong>: go to step 2</td>
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<th>Step 2: Score 1 point for each of the following</th>
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<td>- Neck pain or stiffness</td>
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<td>- Loss of consciousness</td>
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<tr>
<td>- Onset during exertion</td>
</tr>
<tr>
<td>- Vomiting</td>
</tr>
<tr>
<td>- Diastolic blood pressure &gt; 100 mmHg</td>
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<tr>
<td>- Systolic blood pressure &gt; 160 mmHg</td>
</tr>
<tr>
<td>- Limited neck flexion on examination</td>
</tr>
<tr>
<td>- Described as thunderclap with instantly peaking pain</td>
</tr>
<tr>
<td>- Woken from sleep by headache</td>
</tr>
<tr>
<td><strong>SCORE=1</strong>: follow suspected subarachnoid haemorrhage protocol in A&amp;E</td>
</tr>
<tr>
<td><strong>SCORE=0</strong>: Admit to ambulatory care and follow headache pathway</td>
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<table>
<thead>
<tr>
<th>Step 1: Score 1 point for each of the following</th>
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<tr>
<td>- CHRONIC OR RECURRENT HEADACHE: single episode, gradual onset, lasting longer than 24 hours or still present; or recurrent episodes of 3 or more over 6-months; with GCS 15 and EWS &lt; 3</td>
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<tr>
<td>- Episodes of visual loss: unilateral or bilateral</td>
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<tr>
<td>- Any confusion or personality change</td>
</tr>
<tr>
<td>- History of cancer</td>
</tr>
<tr>
<td>- History of HIV</td>
</tr>
<tr>
<td>- Recurrent head injury</td>
</tr>
<tr>
<td>- Any associated seizures or loss of consciousness</td>
</tr>
<tr>
<td>- Papilloedema on fundoscopy</td>
</tr>
<tr>
<td>- Confusion associated with each episode</td>
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<td><strong>SCORE=1</strong>: admit to EAU</td>
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<td><strong>SCORE=0</strong>: go to step 2</td>
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<th>Step 2: Score 1 point for each of the following</th>
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<td>- Worse with stooping, standing or coughing (straining)</td>
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<tr>
<td>- Unilateral and retro-orbital with possible conjunctival injection</td>
</tr>
<tr>
<td>- Pre-syncop: “almost fainted”</td>
</tr>
<tr>
<td>- Systolic blood pressure &gt; 200 mmHg measured 3 times 5 minutes apart</td>
</tr>
<tr>
<td>- Diastolic blood pressure &gt; 110 mmHg measured 3 times 5 minutes apart</td>
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<tr>
<td><strong>SCORE=1</strong>: admit to ambulatory care and follow headache pathway</td>
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<td><strong>SCORE=0</strong>: go to step 3</td>
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<th>Step 3:</th>
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<tbody>
<tr>
<td>1. Follow primary headache protocol below</td>
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<tr>
<td>2. Initiate any treatment and complete discharge information for GP</td>
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<tr>
<td>3. Ask patient to arrange an appointment with GP</td>
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# Primary Headache Protocol

The major types are listed below. Initiate any initial treatment in secondary care, with follow on treatment and assessment to be done in primary care.

<table>
<thead>
<tr>
<th>MIGRAINE WITHOUT AURA</th>
<th>MIGRAINE WITHOUT AURA</th>
<th>CLUSTER HEADACHES</th>
<th>MEDICATION OVERUSE HEADACHE (MOH)</th>
<th>TENSION TYPE HEADACHE (TTH)</th>
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<tr>
<td><strong>Diagnostic criteria</strong> - at least 5 attacks fulfilling criteria 1-4</td>
<td><strong>Occurs in 1/3 of migraine sufferers</strong></td>
<td><strong>-Male:Female ratio 3:1</strong></td>
<td><strong>Male: Female ratio 1:5 ratio</strong></td>
<td><strong>-Usually episodic</strong></td>
</tr>
<tr>
<td>1) Lasts 4-72 hours untreated</td>
<td>-As in left box and:</td>
<td>-Usual age 20+ years</td>
<td><strong>Medication history is crucial especially use of over the counter analgesia</strong></td>
<td>-Deemed chronic if &gt;15days per month</td>
</tr>
<tr>
<td>2) At least 2 of the following</td>
<td></td>
<td>-Bouts last 6 12 weeks</td>
<td>Can occur with other headache types</td>
<td>-Stress is common trigger but not always obvious</td>
</tr>
<tr>
<td>Unilateral location</td>
<td>-Aura 5-60 minutes prior to headache</td>
<td>-Usually occur 1-2x year, often at same time of year</td>
<td>Prophylaxis medication doesn’t help &amp; can worsen</td>
<td>-Can occur in combination with migraine and secondary headache triggers:</td>
</tr>
<tr>
<td>Pulsating quality</td>
<td>-Rarely chronic throughout year.</td>
<td>-Very severe – often at night &amp; lasts 30-60 minutes</td>
<td></td>
<td>Cervicogenic /neck problems</td>
</tr>
<tr>
<td>Moderate/severe pain</td>
<td>-Strictly unilateral</td>
<td>-Ipsilateral conjunctival injection, rhinorhea +/- ptosis confirm diagnosis</td>
<td></td>
<td>Sinusitis</td>
</tr>
<tr>
<td>Nausea/vomiting and/or photophobia</td>
<td>-Usually visual; note blurring &amp; spots not diagnostic</td>
<td></td>
<td></td>
<td>Temporomandibular jaw dysfunction</td>
</tr>
<tr>
<td>4) No other cause identified</td>
<td></td>
<td></td>
<td></td>
<td>Trigeminal neuralgia</td>
</tr>
</tbody>
</table>

## ACUTE TREATMENT

**STEP 1:** simple analgesic & triptan – evidence suggests combination maybe best
- consider adding anti-emetic
- avoid opioids

Triptans – may need to try more than one type.
Care needed however as frequent use can lead to triptan overuse headaches (aim to use < 2 doses/week)

**STEP 2:** consider rectal analgesic (diclofenac) & anti-emetic suppositories (domperidone) if nausea & vomiting.

## PROPHYLACTIC TREATMENT:

In this order titrate over 6-8 weeks: Topiramate; Propranolol; Amitriptyline; Gabapentin; Sodium Valproate

## TREATMENT:

**Step 1:** subcut sumatriptan
**Step 2:** high flow oxygen
**Step 3:** If above no effect: verapamil 80 mg tds and prednisolone 60 mg od
**Step 4:** Reduce prednisolone by 10mg every 3 days
**Step 5:** once off prednisolone titrate verapamil
**Step 6:** If verapamil not effective prophylaxis refer to Neurologist and consider in this order: topiramate, gabapentin, sodium valproate (avoid betablocker)

**TREATMENT:**
- Only treatment is withdrawal
- Education & communication is critical.
- Sometimes regular naproxen may be used in the early stages of withdrawal
- If the patient struggles amitriptyline/nortriptyline as prophylaxis may be used
- Can occur on top of other types of headaches

**TREATMENT**
- Step 1 - Simple analgesic (avoid opioids) along with explanation & reassurance. Look at triggers and consider MOH
- Step 2 - consider alternative NSAID such as naproxen 500mg bd (with PPI cover if needed)
- Step 3 - consider additional therapies eg acupuncture
- Step 4 - if headaches severe, frequent & persist consider amitriptyline starting at low dose AND cognitive therapy
Suspected Subarachnoid Haemorrhage Protocol

<table>
<thead>
<tr>
<th>Date Approved by Clinical Policy and Practice Sub Group</th>
<th>Version</th>
<th>Issue Date</th>
<th>Review Date</th>
<th>Executive Lead</th>
<th>Information Asset Owner</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One</td>
<td></td>
<td></td>
<td>Divisional Director Acute, Urgent and Intermediate Care</td>
<td>Clinical Business Manager Acute and Urgent Care</td>
<td>Clinical Lead Emergency Care</td>
</tr>
</tbody>
</table>

Procedure/Policy/Protocol/Guideline number:  

Procedure/Policy/Protocol/Guideline type: Clinical Protocol  

Date of Equality & Diversity Impact Assessment:  

Outcome:  

CQC Outcomes: 9

Background

Headache is a common presentation to emergency care in both primary and secondary care. NICE have produced guidelines for the diagnosis and management of primary headache disorders (http://www.nice.org.uk/guidance/CG150). A National Enquiry into Patient Death and Outcome (NCEPOD) published in November 2013, called Subarachnoid Haemorrhage: managing the flow (http://www.ncepod.org.uk/2013sah.htm) has identified significant failings in the diagnosis and management of this potentially devastating condition both within primary and secondary care settings.

This protocol should not be used without first using the Headache Screening Protocol in Emergency Care.
**Subarachnoid Haemorrhage Protocol**

All patients should have had a full history and examination with observations. The Headache Screening Protocol should be used first.

<table>
<thead>
<tr>
<th>The screening protocol score=one, in step 1. If not see right</th>
<th>The screening protocol score=one, in step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrange an urgent CT head (within 1 hour) in A&amp;E</td>
<td>Arrange an urgent CT head within 4 hours and admit to EAU</td>
</tr>
<tr>
<td>If CT head confirms subarachnoid haemorrhage discuss urgently with Neurosurgery at RVI</td>
<td>If CT head normal undertake a LP 12 hours after headache onset as per protocol (see box 1)</td>
</tr>
<tr>
<td>If CT head demonstrates an acute stroke or intracerebral haemorrhage discuss with Stroke on-call Consultant</td>
<td>If CT head confirms subarachnoid haemorrhage discuss urgently with Neurosurgery at RVI</td>
</tr>
<tr>
<td>If CT head demonstrates other pathology discuss with medical team and admit to EAU</td>
<td>If CSF bloody or xanthochromia positive discuss urgently with Neurosurgery at RVI</td>
</tr>
<tr>
<td>If CT head normal &amp; no focal neurology admit to EAU &amp; consider Lumbar Puncture (LP) 12-hrs after headache onset as per protocol (see box 1)</td>
<td>If CSF unobtainable, ambiguous or bloody tap; suspicion remains high or presentation &gt; 2 weeks, arrange CT or MR angio</td>
</tr>
<tr>
<td>If all above normal consider other causes of headache and admit to EAU</td>
<td>If all above normal consider other causes of headache and manage any post LP headache (see box 2)</td>
</tr>
</tbody>
</table>

**BOX 1 Lumbar Puncture Protocol**
1. Document verbal consent of procedure in the notes explaining the following complications: LP headache (20%), radicular pain (15%), back ache (15%), spinal bleed (<1%), infection (<1%) and coning (extremely rare).
2. Make sure bevel of needle faces the lumbar flank.
3. If there are 2 failed attempts, arrange for anaesthetist to undertake.
4. Make sure CSF pressure measured and CSF sent for: xanthochromia (protect from light); cell count; gram stain; glucose (pair with serum glucose); protein; culture.
5. After LP make sure patient is hydrated and observed for 4-6 hours.

**BOX 2 Post LP headache**
If after 4-6 hours of observation patient has a persistent headache:
1. Hydrate with 1 L Hartmann’s iv over 6 hours
2. Begin analgesia with paracetamol and naproxen
If headache no better after 12 hours
1. Continue iv hydration, paracetamol and naproxen
2. Add opioid
If headache no better after 24-36 hours of treatment discuss epidural blood patch with anaesthetist