October 2012
No. 46

NICE Bites

Diagnosis and management of headaches

NICE CG150; 2012

This guideline covers the diagnosis and management of headache disorders in adults and young people aged ≥12 years.

Definition of terms

NSAID	non-steroidal anti-inflammatory drug
SC	subcutaneous
IM	intramuscular
IV	intravenous

Assessment and referral – see the NICE Pathway

- **Do NOT** refer people with headache disorder for neuroimaging solely for reassurance.

Diagnosis

- Use a headache diary to help diagnose primary headaches. Ask the person to record the following for a minimum of 8 weeks:
  - frequency, duration and severity of headaches,
  - any associated symptoms,
  - all prescribed and over-the-counter medications taken to relieve headaches,
  - possible precipitants,
  - relationship of headaches to menstruation.

Menstrual-related migraine

- Suspect menstrual-related migraine in women and girls whose migraine occurs predominantly between 2 days before and 3 days after the start of menstruation, in at least 2 out of 3 consecutive cycles.
- Use a headache diary for at least 2 menstrual cycles to diagnose menstrual-related migraine.

Medication overuse headache

- Consider a diagnosis of medication overuse headache in people whose headache developed or worsened whilst taking the following for ≥3 months:
  - triptans, opioids, ergots or combination analgesics e.g. co-codamol, on ≥10 days a month **OR**
  - paracetamol, aspirin or an NSAID either alone or in combination on ≥15 days a month.

Migraine with aura

- Consider further investigations and/or referral for people with or without migraine headache and atypical symptoms:
  - motor weakness **OR**
  - double vision **OR**
  - visual symptoms affecting only one eye **OR**
  - poor balance or decreased level of consciousness.

Table 1: Diagnosis of primary headache disorders

Headache feature	Tension-type headache		Migraine (with or without aura)		Cluster headache	
Pain location[a]	Bilateral		Unilateral or bilateral		Unilateral (around the eye, above the eye and along the side of the head/face)	
Pain quality	Pressing/tightening (non-pulsating)		Pulsating (throbbing or banging in young people aged 12 to17 years)		Variable (can be sharp, boring, burning, throbbing or tightening)	
Pain intensity	Mild or moderate		Moderate or severe		Severe or very severe	
Effect on activities	Not aggravated by routine activities of daily living		Aggravated by, or causes avoidance of, routine activities of daily living		Restlessness or agitation	
Other symptoms	None		♦ Unusual sensitivity to light and/or sound or nausea and/or vomiting. ♦ Aura symptoms[#] can occur with or without headache and are fully reversible, develop over at least 5 minutes and last 5 to 60 minutes. [#] Typical aura symptoms include: **visual** such as flickering lights, spots or lines and/or partial loss of vision; **sensory** such as numbness and/or pins and needles; **speech disturbance**		On the same side as the headache: ➢ red and/or watery eye ➢ nasal congestion and/or runny nose ➢ swollen eyelid ➢ forehead and facial sweating ➢ constricted pupil and/or drooping eyelid	
Duration of headache	30 minutes to continuous		4 to 72 hours in adults 1 to 72 hours in people 12 to 17 years		15 to 180 minutes	
Frequency of headache	<15 days per month	≥15 days per month for >3 months	<15 days per month	≥15 days per month for >3 months	1 every other day to 8 per day[c], with remission[d] >1 month	1 every other day to 8 per day[c], with a continuous remission[d] <1 month in 12-months
Diagnosis	**Episodic tension-type headache**	**Chronic tension-type headache**[b]	**Episodic migraine (with/ without aura)**	**Chronic migraine (with/ without aura)**[e]	**Episodic cluster headache**	**Chronic cluster headache**

a Headache pain can be felt in the head, face or neck.
b Chronic migraine and chronic tension-type headache commonly overlap. If there are any features of migraine, diagnose chronic migraine.
c The frequency of recurrent headaches during a cluster headache bout. d The pain-free period between cluster headache bouts.
e See NICE TA260 Migraine (chronic) - botulinum toxin type A

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Treatment and management - Table 2: Management of headache

Take into account the person's preference, comorbidities and risk of adverse effects.

Headache disorder	Acute treatment			Prophylaxis
	First-line	Second-line	Do NOT	
Tension-type	Give aspirin (not in children <16 years) **or** paracetamol, **or** NSAID		**Do NOT** give opioids	Consider a course of up to 10 sessions of acupuncture over 5 to 8 weeks in chronic tension-type headache
Migraine with or without aura	Give combination therapy of oral triptan (intranasal triptan[f] if 12 to 17 years) **+** NSAID **or** paracetamol. If monotherapy preferred give: oral triptan (intranasal triptan[f] if 12 to 17 years) **or** NSAID **or** aspirin 900mg (not in children <16 years), **or** paracetamol Consider adding an anti-emetic even in the absence of nausea and vomiting	Give a non-oral (e.g. IV/IM) preparation of metoclopramide* **or** prochlorperazine*U **and** a non-oral NSAID (e.g. rectal) **or** triptan (e.g. intranasal, SC injection) if these have not been tried	**Do NOT** give opioids or ergot derivatives **Do NOT** give combined hormonal contraceptives to females who have migraine with aura	Give topiramate*U <18years **or** propranolol* If these are unsuitable or ineffective: consider a course of up to 10 sessions of acupuncture over 5 to 8 weeks **or** gabapentinU (max 1200mg daily)
Migraine in pregnancy	Give paracetamol	Consider a triptan[g] **or** NSAID	**Do NOT** give NSAIDs in the third trimester**	Seek specialist advice
Cluster	Give 100% oxygen at a flow rate of at least 12 litres per minute with a non-rebreathing mask and a reservoir bag **and/or** triptan SCU <18years **or** intranasalU		**Do NOT** give paracetamol, NSAIDS, opioids, ergot derivatives or oral triptans	Consider verapamil*U Seek specialist advice: ➢ before starting treatment, ➢ on ECG monitoring, ➢ if treatment is ineffective
Medication overuse	**STOP** all overused headache medication abruptly for at least one month (unless strong opioid – see below)		**Do NOT** routinely offer inpatient withdrawal	Consider prophylactic treatment for the underlying primary headache disorder in addition to withdrawal

* See Summary of Product Characteristics for full prescribing information. ** See current BNF.
f All triptans, except intranasal sumatriptan, are unlicensed for use in children <18 years.
g Limited experience of use during pregnancy; manufacturers advise avoiding unless the potential benefit outweighs the risk.
U Unlicensed indication. Obtain and document informed consent.

All headache disorders

- Use a headache diary:
  - to record the frequency, duration and severity of headaches,
  - to monitor the effectiveness of interventions,
  - as a basis for discussion with the person about their headache disorder and its impact.

Menstrual related migraine

- Give acute treatment for migraine as per Table 2.
- If this is ineffective give: frovatriptan*U (2.5mg twice daily) **OR** zolmitriptan*U (2.5mg twice or three times daily) on the days migraine is expected.

Migraine

- Choose a triptan with the lowest acquisition cost; if this is ineffective, give an alternative triptan.
- Continue any currently prescribed migraine prophylaxis e.g. amitriptyline*U, if this is controlling symptoms.
- Review the need for prophylaxis after 6 months.
- Advise people with migraine that riboflavin U (400mg once each day) may reduce migraine frequency and intensity.

Cluster headache

- In people with a first bout of cluster headache, discuss the need for neuroimaging with a specialist GP or neurologist.
- Arrange provision of home and ambulatory oxygen.
- Ensure an adequate supply of SC or intranasal triptan is provided based on the history of cluster bouts and the maximum daily dose.

Medication overuse headache

- When stopping medication advise patients that:
  - headache symptoms may get worse in the short term,
  - they may experience withdrawal symptoms.
- Provide support and follow-up according to their needs.
- Consider specialist referral and/or inpatient withdrawal for people:
  - taking strong opioids, e.g. morphine,
  - with relevant comorbidities,
  - in whom previous attempts at withdrawal of overused medication have been unsuccessful.
- Review the diagnosis and further management 4 to 8 weeks after the start of withdrawal of overused medication.

Pregnancy

- If topiramate* is given to women of child bearing potential, discuss the risk of fetal malformation and potential decreased efficacy of hormonal contraceptives. Ensure suitable contraception is offered.
- Seek specialist advice if treatment of cluster headache is required during pregnancy.
- There is limited experience of triptans in pregnancy; avoid using unless the potential benefit outweighs the risk**.

Counselling

- Discuss the benefits and risks of each treatment.
- For all people with a headache disorder discuss:
  - how a diagnosis has been reached and reassure that other causes have been excluded **AND**
  - the options for management **AND**
  - recognition that headache is a medical disorder that can have significant impact on the person and their family or carers.
- Provide information about headache disorders and support organisations.
- Explain the risk of medication overuse headache to people who are using acute treatment.

Visit the **NICE pathway: Headaches**

This bulletin summarises key prescribing points from NICE guidance. Please refer to the full guidance at www.nice.org.uk for further detail.
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