Headache Pathway

Clinical Assessment / Management Tool for Children – Oxfordshire Patient Pathway

Healthier Together

NHS Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board

Headaches are common in older children and young people.
About 10% of school-aged children and up to 27% of teenagers have headaches from time to time.
In the absence of trauma or fever, migraine and tension type headaches are the most common causes of headache and only occasionally is chronic headache the main presenting feature of a serious brain disease or a brain tumour.

History and examination should focus on excluding a secondary cause for headaches, identifying Red Flags and establishing a diagnosis.

Description of headache: Location, intensity, nature, duration, timing and frequency. Impact on activity. Analgesia use. Identified triggers. Preceding aura or warning symptoms. Photo/phonophobia, nausea and vomiting.
Additional history: Psychosocial history, lifestyle factors including sleep, fluid intake and eating, screen time and exercise. Any relevant family history
Examination: Full neurological examination including gait, balance and fundoscopy (age dependent), blood pressure

Green features (low risk)

Low risk Headache history and examination consistent with common childhood headache types **WITHOUT RED** or **AMBER** features

- Tension type headache
- Migraine

Green Management

- Provide and discuss patient advice sheet
- Lifestyle modifications: sleep hygiene, hydration, exercise, screen time
- Advise a routine optician appointment
- Keep analgesia use to a minimum (less than 2 days a week)
- Explore psychosocial factors/stressors (HEEADSSS screen if >10 yrs old)
- Encourage parents/child to keep a headache diary
  - To record the frequency , duration and severity of the headaches
  - To monitor the effectiveness of headache interventions
  - As a basis for discussion about the headache disorder and its impact
- Plan follow up review

Amber features (intermediate risk)

- Recurrent or progressive headaches unresponsive to initial advice/treatment **WITHOUT RED** features
- Using analgesia more than 15 days a month for more than 3 months (Medication Overuse Headache)
- Psychological factors that interfere with management
- Migraine with atypical aura (motor weakness, double vision, visual symptoms affecting only one eye, poor balance or decreased level of consciousness)
- If migraine regularly interrupting daily activities, school attendance or causing functional impairment DESPITE lifestyle modifications

Amber Management

- Provide and discuss patient advice leaflet
- Ensure all green actions completed
- Refer for general paediatric outpatient assessment ***(the urgency of referral depending on clinical judgement***). If concerns discuss with Paediatric Consultant via telephone or email advice line
- Refer migraine with atypical aura and cluster headache directly to Paediatric Neurology
- Refer to local CAMHS team if significant psychological factors and provide resources

Red Flags: History

- Severe, sudden onset, incapacitating headache that doesn't respond to simple analgesia
- Signs of meningism (neck stiffness, photophobia, vomiting)
- Impaired level of consciousness or associated confusion, disorientation or seizure
- Persistent vomiting/nausea, especially if early morning (occurring on most days for 2 or more weeks)
- Child age less than 4 years (Headache in this age group is very unusual and may indicate serious underlying pathology)
- Waking the child from sleep; unable to return to sleep
- Brought on by coughing, sneezing straining or exercise
- Change in personality / behaviour
- Decline in academic performance or regressing milestones
- Recent significant head trauma (typically within last 3 months)
- A substantial change in the characteristics of their headache
- Occipital headache
- Worsening headaches, more severe or continuous
- A new onset headache with: Immunocompromise, history of malignancy, vomiting without other obvious cause

Red Flags: Examination

- Focal neurological deficits – limb weakness, cranial nerve palsies
- Visual loss, papilloedema
- Persistent blurred/double vision or new squint
- Balance or coordination problems
- Ataxia or gait abnormality
- Abnormal growth parameters
- Signs of early or delayed puberty
- High blood pressure (use age centiles)
- Head tilt/torticollis
- Motor regression in a younger child

Red Management

If suspected **Meningitis, Stroke or Intracranial bleed**: arrange 999 ambulance transfer and alert Paediatrician on call
If appropriate commence treatment to stabilise child for transfer

For other red features: discuss immediately with Paediatrician on call to consider same day or urgent outpatient assessment

This guidance has been reviewed and adapted by the Children's Hospital at Home Working Group, with representatives from Oxford University Hospitals NHS Foundation Trust, Oxford Health Foundation Trust and General Practice, with consent from the Hampshire development groups.

This document was arrived at after careful consideration of available evidence, including, but not exclusively, NICE, SIGN, EBM data and NHS evidence as applicable. This pathway is to support clinicians in decision making and management.

Pathway developed: October 2025, Review Date: October 2028

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	Tension	Migraine	Cluster
Location	Bilateral	Unilateral or bilateral Usually frontal	Unilateral
Quality	Pressing/tightening	Pulsating (throbbing or banging)	Variable
Severity	Mild or moderate	Moderate or severe	Severe or very severe
Duration	30 mins to continuous	2 to 72 hours	15 to 180 mins
Associated Features	None	Nausea/Vomiting Photophobia/Phonophobia Symptoms of aura (fully reversible, develop over at least 5 mins, last 5 to 60 mins) Typical aura includes: • Visual: flickering lights, spots or lines and/or partial loss of vision • Sensory: numbness and/or pins and needles • Speech disturbance	Ipsilateral autonomic features • Nasal congestion, lacrimation and conjunctival injection, swollen eyelid, forehead and facial sweating, constricted pupil and/or drooping eyelid

Information for families

1. Young minds
2. CAMHS - Good advice about mental health
3. CAMHS – Parent and carer resources
4. Tellmi App
5. School health nurse- Emotional health and wellbeing
6. Mindfulness apps – Calm, Headspace
7. Meditation/Yoga e.g. Cosmic Kids Yoga

Additional management of tension type headache

- Lifestyle modifications
- Discuss stress and anxiety as potential triggers and direct to local resources
- Relaxation techniques can be helpful
- In children over 12 years of age consider a course of up to 10 sessions of acupuncture over 5 – 8 wks or other biobehavioural techniques if available (psychotherapy/relaxation therapy)

Recommended daily oral fluid intake

- At 5 - 8 years of age – 1000 - 1400 mL (girls); 1000 - 1400 mL (boys).
- At 9 - 13 years of age – 1200 - 2100 mL (girls); 1400 - 2300 mL (boys).
- At 14 - 18 years of age – 1400 - 2500 mL (girls); 2100 - 3200 mL (boys).

Medication overuse headache

- Stop all overused acute headache medications for at least 1 month
- Explain that headache is likely to get worse in the short term
- Consider prophylactic treatment for underlying primary headache

Additional management of migraine

- Lifestyle modifications
- Discuss stress and anxiety as potential triggers and direct to local resources
- Relaxation techniques can be helpful
- Acute treatment:
- If simple analgesia ineffective (NSAID or paracetamol) consider trialling a nasal triptan (if no contraindication) in those aged 12 – 17 yrs
- If triptan alone is ineffective consider combination treatment with an NSAID or paracetamol
- If simple analgesia ineffective in those under 12 years of age discuss with Paediatric Consultant via telephone or email advice line and consider need for outpatient referral
- Consider an antiemetic eg prochlorperazine
- Prophylactic treatment
- Consider prophylaxis if migraine regularly interrupting daily activities, school attendance or causing functional impairment
- If prophylaxis required refer to paediatric outpatients and/or discuss with Paediatric Consultant via telephone or email advice line
- In children over 12 years of age consider a course of up to 10 sessions of acupuncture over 5 – 8 wks (note this is not NHS funded)

Information for Health Professionals

- The International Classification of Headache Disorders – ICHD-3
- NICE - Headaches in Over 12s Diagnosis and Management
- NICE - Suspected Neurological Conditions Recognition and Referral Guidance for Children under 16
- Headsmart: the Brain Tumour Charity

Supporting information for migraine

- NHS – migraine
- The migraine trust
- National migraine Centre

Consider Paediatric Urgent Care Pathway

Alternatives to hospital admission when GPs are considering referral:

- Oxford Paediatric Advice/Referral Line Tel: 01865 227533, Option 1 for HGH and Option 2 for JRH.
- If no response Tel: 01865 741166, Bleep 9403 for HGH or 1711/4734 for JRH Paediatrician on call
- Children's Community Nursing (CCN) Team via single point of access Tel: 01865 902700

Useful numbers for clinicians in the community

John Radcliffe Hospital Tel: **01865 741166**
Horton General Hospital Tel: **01295 275500**
Royal Berkshire Hospital Tel: **0118 322 5111**
Great Western Hospital Tel: **01793 604020**
Stoke Mandeville Hospital Tel: **01296 315000**

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