



PAEDIATRIC ACUTE CARE GUIDELINE

Headache

Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
<http://kidshealthwa.com/about/disclaimer/>

Headache

Background

Headache is a common symptom in children, affecting most children by 15 years of age.

Common Causes are:

- Systemic illness with fever
- Tension Headaches
- Cluster Headaches (older children)
- Localised ENT problems
- Migraine +/-Aura

Uncommon but important causes:

- Meningitis
- Raised intracranial pressure (ICP) from tumours, bleeds etc

Risk factors

Family history of migraine predisposes to migraine

Assessment

Assess headache as either acute or recurrent:	
Acute	Recurrent

<ul style="list-style-type: none"> • Systemic with fever and general illness (e.g. viral illness, septicaemia, pneumonia) • Tension – bilateral band like pain, mild to moderate • Trauma • Sinusitis • Otitis media • Dental caries • Meningitis (reduced conscious level, neck stiffness, photophobia) • Haemorrhage (sudden onset, severe pain, reduced conscious level, neck stiffness) 	<ul style="list-style-type: none"> • Migraine – aura, nausea, vomiting, visual disturbance, pallor, family history • Behavioural – consider family, school or social problems • Cluster – throbbing pain, possibly involving neck muscles usually unilateral and older children • Raised ICP – morning headaches ± vomiting, pain worse on coughing, sneezing or bending, personality changes, focal neurological symptoms • Benign Intracranial Hypertension • Post concussion headache (days – weeks)
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History

Migraine Headache
<ul style="list-style-type: none"> • Migraine is a type of headache common in children • Appear to be familial • Aggravated by exercise
<ul style="list-style-type: none"> • Triggers: <ul style="list-style-type: none"> ◦ Various foods ◦ Menstruation ◦ Fatigue ◦ Bright lights ◦ Loud noises ◦ Smoking ◦ Drinking ◦ Caffeine
<ul style="list-style-type: none"> • Pain: <ul style="list-style-type: none"> ◦ Dull or throbbing ◦ Usually unilateral but can be bilateral ◦ May range from mild to severe ◦ Can last 1-72 hours
<ul style="list-style-type: none"> • Child may also have: <ul style="list-style-type: none"> ◦ Loss of appetite ◦ Nausea or vomiting ◦ Pale ◦ Lethargy ◦ Abdominal Pain
<ul style="list-style-type: none"> • +/-Aura: <ul style="list-style-type: none"> ◦ May precede headache ◦ Visual disturbances ◦ Sensory changes – pins and needles, numbness ◦ Dysphasic speech ◦ Usually last 5-60 minutes
Cluster Headache

- Older children
- Unilateral pain – may involve eye or nasal congestion and forehead sweating
- Lasts up to 3 hours
- Can be daily or up to 8 times per day
- Causes restlessness and agitation
- Can be severe

Tension Headache

- Bilateral
- Mild – moderate severity
- Tightening nature
- Not aggravated by activities of daily living

Concerning Features

- Headaches waking from sleep
- Vomiting in the morning
- Persistent visual disturbance
- Sudden onset of headache (like being hit by a ball)
- Motor weakness
- Poor balance
- ↓ LOC

Examination

- The child may look:
 - well
 - unwell
 - septic
- Full neurological assessment
- Assess for local causes:
 - Eye
 - Sinus or ear
 - Dental
 - Cervical lymphadenopathy

Investigations

- Investigations are driven by likely diagnosis:
 - Sepsis or SAH, consider LP
 - Tumour or bleed, consider CT head
 - Migraine/Tension headache - treat with appropriate analgesia

Medications

Simple analgesia:

For all headaches -

- Paracetamol 20mg/kg stat then 15mg/kg/dose (max dose 1g) 4-6 hourly (max dose 4g/day)
- NSAID - Ibuprofen 10mg/kg/dose (max dose 400mg) 8 hourly
- Aspirin 600mg-1000mg in adolescents with migraine (give at same time as paracetamol)

Migraine and cluster headaches -

- Sumatriptan (serotonin agonist)
- 5-20mg IN
- 25mg orally (>12 Years)
- Can be repeated after 30 minutes

In severe migraine or persistent headache, consider use of Chlorpromazine Hydrochloride IV:

Administration of Chlorpromazine Hydrochloride IV:

- Use in children > 8 years old
- **Dose:**
 - 30-50kg: Use 6.25mg in 250mL of 0.9% saline over one hour
 - > 50kg: Use 12.5mg in 500mL of 0.9% saline over one hour
- Ampoules contain 50mg in 2mL
- Chlorpromazine can prolong the QTc interval; this drug should be avoided in patients with cardiac disease, family history of sudden death, or potassium or magnesium deficiency (e.g. after persistent vomiting)
- Can cause dose-dependent sedation, postural hypotension and restlessness


Monitoring The Patient Receiving Chlorpromazine Hydrochloride IV:

- Monitor BP, pulse and respiration every 15 minutes during the infusion and for 30 minutes after completion
- Continuous ECG and saturation monitoring
- Baseline neurological observations and continued hourly
- Chlorpromazine can cause dose dependent sedation, postural hypotension and restlessness
- Keep patient recumbent for the duration of the infusion and for 30 minutes after completion of dose

References

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3. National Institute for Health and Care Excellence. Headaches: Diagnosis and Management of Headaches in Young People and Adults. Retrieved from www.nice.org.uk/guidance/cg150 on 11/08/14
4. Kanis JM, Timm NL. Chlorpromazine for the Treatment of Migraine in a Pediatric Emergency Department. Headache: The Journal of Head and Face Pain 2014;54: 335-342

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