

INTRODUCTION

Headache is a common presenting problem met by emergency ambulance crews. Its origins may be simple, and require no more than simple painkillers, or be potentially **TIME CRITICAL**, caused by meningitis or subarachnoid haemorrhage.

HISTORY

Take a full history and determine the most probable causes of the headache (*see additional information*). Exclude history of stroke (*refer to stroke/transient ischaemic attack guideline*), head injury (*refer to head trauma guideline*) and glycaemic emergency (*refer to glycaemic emergencies guideline*).

- Is the headache severe? Is it the most severe ever experienced by this patient? Is this an unfamiliar type of headache?
- Has the patient had this type of headache before?
- Is the headache progressive and escalating in severity?
- Was it a sudden onset?
- Is there loss of function or sensation?
- Is there any impairment of consciousness?
- Any visual symptoms or associated vomiting?
- Is the headache one-sided, (frontal) or at the back of the head (occipital) and/or associated with neck stiffness?

ASSESSMENT

Assess: **ABCD**'s

Specifically assess:

- levels of consciousness AVPU (*see below*) (remember the only normal GCS is 15)

A	Alert
V	Responds to voice
P	Responds to painful stimulus
U	Unresponsive

- temperature
- respiratory rate/pulse oximetry
- blood pressure (measure to determine systolic/diastolic)

- neck stiffness and photophobia (light sensitivity of eyes)
- any evidence of a rash
- check for loss of function or altered sensation
- flushed face but cool, pale trunk and extremities
- check blood glucose level.

Evaluate whether any TIME CRITICAL features are present: These may include:

- impaired consciousness, and/or fitting
- respiratory depression
- signs of septic shock – tachycardia, hypotension, impaired consciousness, high temperature – often >39°C
- purpuric skin rash
- suspicion of subarachnoid haemorrhage (SAH)
- suspicion of meningitis.

If any of these features are present, correct **A and B problems then transport to nearest suitable receiving Hospital.**

Provide a **Hospital Alert Message / Information call**

En-route continue patient **MANAGEMENT** (*see below*).

MANAGEMENT

Follow medical emergencies guideline, **remembering to:**

Start correcting:

- **AIRWAY**
- **BREATHING**
- **CIRCULATION**
- **DISABILITY** (mini neurological examination)

Oxygen and fluid therapy is not usually required, but should be administered if:

- oxygen saturation (SpO₂) is <95%, except in patients with chronic obstructive pulmonary disease (COPD) (*refer to COPD guideline and oxygen protocol*)
- if there is evidence of poor tissue perfusion (*refer to medical emergencies*).

Specifically consider:

- position for comfort.

HOSPITAL ASSESSMENTS

It is often difficult to differentiate between a simple headache which requires no treatment and a potentially more serious condition. The following list identifies symptoms that **require** the patient to undergo hospital assessment:

NOTE: this does not mean that any patient presenting without these symptoms is automatically safe to be left at home.

Finding:

- headache of severe, sudden (thunderclap) onset
- headache localised to the vertex
- escalating unfamiliar headache
- changed visual acuity
- meningeal irritation
- changed mental state and inappropriate behaviour
- newly presenting ataxia.

ADDITIONAL INFORMATION

Neck stiffness

Can be assessed by gently trying to flex the head forwards in the lying position, resistance and pain suggest neck stiffness, however, the absence of neck stiffness does not exclude meningitis (particularly in children under 1-year of age).

Meningitis and/or septicaemia

Meningitis is caused by either viral or bacterial infection. The most severe forms are usually bacterial and the meningococcal type is particularly dangerous, especially in children. Meningococcal meningitis and meningococcal septicaemia are different illnesses and may occur separately or present together.

The infection may start as a sore throat and temperature, but proceeds to headache, temperature, stiff neck, photophobia (light sensitivity) and impaired consciousness. Fitting and coma may also follow, along with a “purpuric” type of skin rash.

Meningococcal disease may present without the classical signs of septicaemia (rash and photophobia). Be alert and remain suspicious. Beware of altered clinical presentations in partially treated infectious conditions.

Meningococcal disease in children, especially very young, may present with only drowsiness, high temperature and signs of recent upper respiratory infection (sore throat or even ear infection), and often have no headache or neck stiffness. The key need in children is to recognise, and react to the seriously ill child (*refer to recognition of the seriously ill child guideline*).

Classically, causes sudden onset blinding headache, commonly described as “like a blow to the back of the head”. This may be associated with vomiting and range in severity from isolated headache to causing unconsciousness.

SAH may also present as a gradually worsening crescendo headache associated with so called ‘trickle’ haemorrhage.

SAH may present as a sudden collapse, with or without a headache, sometimes with apparent full recovery. These patients should not be left at home and require full hospital assessment.

Neck stiffness may also be a sign of SAH.

Cerebral haemorrhage (bleeding into the brain itself) often causes a similar acute picture in older patients.

Migraine

Commonly causes recurrent one-sided headache, often accompanied by nausea or vomiting and blurring distortion of vision. There is frequently a previous history of migraine or similar pattern of headaches but this does not exclude the possibility of a serious bleed in someone who has previously suffered migraines.

Sinusitis and common virus infections

Can all cause quite severe frontal headache.

Glaucoma (acutely raised pressure in the eye)

Is a cause of severe one-sided headache, particularly in elderly patients.

Key Points – Headache

- Crescendo headaches are significant.
- Unfamiliar headaches are significant.
- Migraineurs are at risk of serious intracranial events.
- In headache, blood pressure must be checked.
- Any persistent headache or any headache associated with altered conscious levels or unusual behavior is significant.

METHODOLOGY

Refer to methodology section.