**Headache**

Headache is a common symptom. The most common types of headache that the community pharmacist is likely to encounter are tension headache and migraine.

**Significance of questions and answers**

 **Age** The pharmacist would be well advised to refer any child with a headache to the GPsurgery if there is an associated history of injury or trauma Children with severe pain across the back of the head and neck rigidity should be referred immediately. Elderly patients sometimes suffer a headache a few days after a fall involving a bang to the head. Such cases may be the result of a slow bleed into the brain, causing a subdural haematoma, and require immediate referral. It is unusual for patients to present with their first migraine episode over the age of 40 years,and these patients should be referred.

 **Duration** Any headache that does not respond to over-the-counter (OTC) analgesics within a day requires referral.

**Nature and site of pain**:The pain is often described as being around the base of the skull and the upper part of the neck and is the same on both sides. It is not associated with any neck stiffness. The pain is usually of a dull nature rather than the pounding or throbbing sensation associated with migraines. However, the nature of the pain alone is not sufficient evidence on which to decide whether the headache is likely to be from a minor or more serious cause. Asteady, dull pain that is deep seated, severe and aggravated by lying down requires referral, since it may be due to raised intracranial pressure from a brain tumour, infection or other cause.

**Frequency and timing of symptoms** Pharmacists should regard a headache that is worse in the morning and improves during the day as potentially serious, since this may be a sign of raised intracranial pressure. Another type of headache, cluster headaches, typically happen daily (at roughly the same time of day or night) for 2–3 months and each episode of pain can last up to 3 h

**Previous history** :new or different headaches (especially in people over 45 years) may be a warning sign of a more serious condition.

**Associated symptoms** Children and adults with unsteadiness and clumsiness associated with a headache should be referred immediately.

**Types of headache**

**1-Migraine**

**Migraine without aura** (common migraine) Headache attacks lasting 4–72 h (untreated or unsuccessfully treated) Headache has at least two of the following four characteristics:

1. Unilateral location **2.** Pulsating quality **3.** Moderate or severe pain intensity **4.** Aggravation by, or causing avoidance of, routine physical activity (e.g. walking or climbing stairs)

During headache at least one of the following symptoms:

1. Nausea and/or vomiting 2. Photophobia (aversion to light) and phonophobia (aversion to noise)

**Migraine with aura (classic migraine)** One or more of the following fully reversible aura symptoms: 1. Visual 2. Sensory 3. Speech and/or language 4. Motor 5. Brainstem 6. Retinal

At least two of the following four characteristics: 1. At least one aura symptom spreads gradually over≥5 min, and/or two or more symptoms occur in succession. 2. Each individual aura symptom lasts 5–60 min. 3. At least one aura symptom is unilateral. 4. The aura is accompanied, or followed within 60 min, by headache.

**2-Tension-type headache**

The most common type of headache is most often related to upset or stress. They are characterised by recurrent episodes of headache that are usually bilateral and have apressing ortightening quality (non-pulsating) that is mild to moderate in intensity.The pain is often felt to arise from the neck and is sometimes associated with musculoskeletal neck problems. Important features that help in differentiation from more serious problems are that the headache is not aggravated by routine physical activity such as walking or climbing stairs and is not associated with nausea or vomiting or photophobia or phonophobia (but stressed people may find incessant noise or flashing lights stresses them further).

**3- Chronic tension-type headache and chronic daily headache**

The term chronic tension-type headache is used if the headache occurs on 15 days or more per month, on average, and lasts for more than 3 months at a time. Any frequent headache needs referral to the GP surgery for assessment.

**4-Medication overuse headache**

Medication overuse headache is a chronic headache (occurring on more than 15 days each month) that develops or worsens with frequent use of any drug treatment for pain in people who have tension-type headache or migraine.It has also been identified in people taking analgesics for other painful conditions. It is most commonly seen when triptans, opioids, ergots or combination analgesia have been taken for 10 days per month or more and is sometimes seen if paracetamol, aspirin or a non-steroidal anti-inflammatory drug (NSAID), either alone or in any combination, are taken on 15 days per month or more.

**5-Cluster headaches** (previously called migrainous neuralgia)

A typical pattern would be daily episodes of pain over 2–3 months, after which there is a remission for anything up to 2 years. The pain can be excruciating and often comes on very quickly. In typical cases the headache commonly wakes the person from sleep within 2 hr of going to sleep but mayalso occur at other times.Each episode of pain can last from 15 min to 3h,and the pain is usually experienced on one side of the head,in the eye,cheek or temple. A cluster headache is often accompanied by a painful, watering eye and a watering or blocked nostril on the same side as the pain. Any recurrent, persistent or severe headache of this type needs referral to the GP surgery for a diagnosis.

**6-Sinusitis**

Sinusitis may complicate a respiratory viral infection (e.g. cold) or allergy (e.g. hay fever), which causes inflammation and swelling of the mucosal lining of the sinuses (see Chapter 1 Respiratory Problems: Symptoms: Facial pain/Frontal headache). The increased mucus produced within the sinus cannot drain, and pressure builds up, causing pain.

**7-Temporal arteritis**

 Temporal arteritis (also known as giant cell arteritis) usually occurs in people over the age of 60 when the arteries that run through the temples become inflamed. The arteries may appear red and are painful and thickened to the touch. However only about a half of patients have scalp tenderness, and these signs are not always present.should be referred immediately as damage to the retinal blood supply can cause blindness.Temporal arteritis is a curable disease and it is important to avoid delay in diagnosis and treatment. Treatment usually involves high-dose oral corticosteroids and is highly effective, provided the diagnosis is made sufficiently early.

**Precipitating factors**

stress, pressure at work .Certain foods have been reported to precipitate migraine,for example, chocolate and chees, associated with the menstrual cycle or with combined hormonal contraception .Recent trauma or injury. Recent eye test Headaches associated with periods of reading,writing or other close work may be due to deteriorating eyesight and a sight test may be worth recommending to see whether spectacles are needed. Medication ,for example, nitrates used in the treatment of angina.

Any woman taking the combined hormonal contraception (pill, patch or ring) and reporting severe prolonged headache or migraine headaches, either for the first time or as an exacerbation of existing migraine, should be referred to the GP surgery or sexual health/ family planning clinic urgently since this may be an early warning of cerebrovascular abnormality with risk of stroke. Occasionally, a headache is caused by hypertension only when the blood pressure is extremely high.

**When to refer** ■ Headache associated with injury/trauma ■ Headache associated with high temperature (>38◦C) ■ Severe headache of more than 4 h duration ■ Suspected adverse drug reaction ■ Headache in children under 12 years ■ Severe occipital headache (across the back of the head) ■ Headache that is worse in the morning and then improves ■ Associated drowsiness, unsteadiness, visual disturbances or vomiting ■ Neck stiffness ■ Frequent migraines suggesting need for prophylactic treatment ■ Frequent and persistent headaches Treatment timescale If the headache does not respond to OTC analgesics within a day, referral is advisable.

**Management**

 The pharmacist’s choice of oral analgesic comprises three main agents: paracetamol, ibuprofen or aspirin. Aspirin is now rarely used for analgesia and should not be used at all in children under the age of 16 years. These medications may be combined with other constituents such as codeine, dihydrocodeine, doxylamine and caffeine. The peak blood levels of analgesics are achieved 30 min after taking dispersible dosage forms; after traditional aspirin tablets, it may take up to 2 h for peak levels to be reached.

**Paracetamol**

 Paracetamol has analgesic and antipyretic effects but little or no antiinflammatory action. The exact way in which paracetamol exerts its analgesic effect remains unclear, despite extensive research. It is less irritating to the stomach than is aspirin and can therefore be recommended for those patients who are unable to take aspirin. Paracetamol can be given to children from 2 to 3monthsold. can cause liver toxicity at high doses and damage may not be apparent until a few days later. All overdoses of paracetamol should be taken seriously and the patient referred to a hospital accident and emergency department.

 **Ibuprofen**

Ibuprofen has analgesic, anti-inflammatory and antipyretic activities and causes less irritation and damage to the stomach than does aspirin. The dose required for analgesic activity is 200–400 mg and that for anti-inflammatory action 300–600 mg (total daily dose of 1600–2400 mg). The maximum daily dose allowable for OTC use is 1200 mg and ibuprofen tablets or capsules should not be given to children under 12 years. Ibuprofen suspension 100 mg in 5 ml is available OTC. Differences in product licences mean that some ibuprofen suspensions can be used in children aged 3 months and over. it is still not advised for patients taking anticoagulant medication (as bleeding risk is high) for whom paracetamol would beabetter choice. Hypersensitivity Cross-sensitivity between aspirin and NSAIDs occurs.Since asthmatic patients are more likely to have such a reaction, the use of NSAIDs in asthmatic patients should be with caution.

**Aspirin**

Aspirin is analgesic, antipyretic and also anti-inflammatory if given in doses of 600-900 mg three to four times daily in adults.Its use as an analgesic has diminished because it causes more gastric irritation than paracetamol or ibuprofen and also affects blood clotting. About half of migraine sufferers show significant improvement in their headache 2 h after taking aspirin. It should not be given to children under 16 years old because of its suspected link with Reye’s syndrome. It should not be used for gout or where there is history of gout. local use of aspirin, for example, dissolving a soluble tablet near an aching tooth,is best avoided,since ulceration of the gums may result.Aspirin can cause GI bleeding and should not be recommended for any patient who either currently has or has a history of peptic ulcer.

**Codeine**

 Codeineis anarcotic analgesic; a systematic review of evidence from clinical trials showed that a dose of at least 15 mg is required for analgesic effect.Codeine is commonlyfoundincombination products with aspirin,paracetamol or both. Constipation is a well recognised side effect and is more likely in older people and others prone to constipation. Codeine can also cause drowsiness and respiratory depression, and in some people causes nausea and vomiting, although this may be unlikely at OTC doses. Codeine-containing medicines should only be used in children over 12 years old to treat acute moderate pain, and only if it cannot be relieved by paracetamol or ibuprofen. Codeine should also not be used by breastfeeding mothers because it can pass to the baby through breast milk and potentially cause harm.

 **Dihydrocodeine**

 Dihydrocodeine is related to codeine and has similar analgesic efficacy. A combination product containing paracetamol and dihydrocodeine is available with a dose per tablet of 7.46 mg dihydrocodeine. The product is restricted to use in adults and children over 12 years old.Side effects include constipation, drowsiness,nausea and vomiting.Like codeine,the drug maycauserespiratory depression at high doses.

 **Caffeine**

Caffeine is included in some combination analgesic products to produce wakefulness and increased mental activity.It is probable that doses of at least 100 mg are needed to produce such an effect; OTC analgesics contain 30–50 mg per tablet.

**Doxylamine succinate**

Doxylamine is an antihistamine whose sedative and relaxing effects are probably responsible for its usefulness in treating tension headaches. It is an ingredient in some OTC combination products. Like other older antihistamines, doxylamine can cause drowsiness, and patients should be warned about this. Doxylamine containing products should not be recommended for children under 12 years old.

 **Buclizine**

Buclizine is an antihistamine and is included in an OTC compound analgesic for migraine because of its antiemetic action.

**Sumatriptan**

Sumatriptan 50 mg tablets can be used OTC for acute relief of migraine with or without aura and where there is a ‘clear diagnosis of migraine’. It can be used by people aged between 18 and 65 years. A 50 mg tablet is taken as soon as possible after the migraine headache starts. A second dose can be taken at least 2 h after the first if symptoms come back. A second dose should be taken only if the headache responded to the first dose.

The following patients should be referred for medical assessment:

■ Those aged under 18 years or over 65 years.

■ Those aged 50 years or over and experiencing migraine attacks for the first time. If a doctor confirms a diagnosis of migraine, they can be considered for OTC sumatriptan.

■ Patients who had their first ever migraine attack within the previous 12 months.

■ Patients who have had fewer than five migraine attacks in the past. Patients whoexperiencefourormoreattackspermonth.Thepatientispotentially suitable for OTC sumatriptan but should be referred to a doctor for further evaluation and management.

 ■ If migraine headache lasts for longer than 24 h, the patient is potentially suitable for OTC sumatriptan but should be referred to a doctor for further evaluation and management.

 ■ Patients who do not respond to treatment.

■ Patients who have a headache (of any type) on 10 or more days per month.

 ■ Womenwith migraine who take the combined hormonal contraception have an increased risk of stroke, so should be referred if the onset of migraine is within the previous 3 months, or if migraine attacks are worsening, or if they have a migraine with aura.

 ■ Patients who do not recover fully between attacks.

 ■ Pregnant or breastfeeding migraine sufferers.

 ■ Patients with three or more cardiovascular risk factors. Contraindications OTC sumatriptan must not be used prophylactically and not in people with known hypertension, previous myocardial infarction, ischaemic heart disease, peripheral vascular disease, coronary vasospasm/Prinzmetal’s angina, cardiac arrhythmias (including Wolff–Parkinson–White syndrome), hepatic or renal impairment,epilepsy,a history of seizures and cerebrovascular accident or transient ischaemic attack. Adverseeffects.Commonadverseeffectsincludenauseaandvomiting,disturbances of sensation (including tingling), dizziness, drowsiness, flushing, warm sensation, feeling of weakness and fatigue and feelings of heaviness, pain or pressure in any part of the body. Interactions These include monoamine oxidase inhibitors (either current or within the last 2 weeks), ergot and St John’s wort (may increase serotonin levels).