Guidelines on the management of headaches – Part 1

In the first of two articles, **C Glover, S Greensmith, A Ranftler, G Donkin, L Jamieson, P Charlesworth, A Turner**, and **A J Dowson** describe how a protocol for pharmacists and primary care practitioners (including optometrists) was designed

HEADACHE IS A LARGE public health problem, with many sufferers never consulting a GP, remaining undiagnosed and relying on sometimes unproven over-the-counter (OTC) treatments.

Many headache sufferers consult a pharmacist or other primary care provider (such as an optometrist) for care and evidence-based guidelines for the optometrist are published in this two-part series.

Primary care providers are likely to have an enhanced role in headache management in the future, following the switch of many drugs from prescription only (POM) to pharmacy (P) status, and through the introduction of supplementary prescribing for POM drugs.

The main challenges for implementing a headache service are the provision of appropriate training and management algorithms, payment for these enhanced services and auditing of their success.

THE NATURE OF HEADACHES

Headache is an almost ubiquitous condition, with estimates of 93 per cent of the population experiencing one or more headaches in their lifetimes, and 11 per cent of men and 22 per cent of women having a headache at any point in time.[1]

The most frequently reported headaches are the benign primary headaches; episodic tension-type headache (TTH), episodic migraine and chronic daily headache (CDH).

CDH comprises daily or near-daily headaches that last for more than four hours on average and are often linked to medication overuse. They usually arise from a primary, episodic headache disorder (migraine or TTH).[2] Other headache subtypes are relatively uncommon, affecting <1 per cent of the population.

TTH is estimated to affect 63 per cent of men and 86 per cent of women,[1] and is typically a mild-to-moderate bilateral headache associated with fatigue, but with little outward effects on the patient's everyday function.[2,3]

Migraine affects about 8 per cent of men and 18 per cent of women,[4] is typically a moderate-to-severe, unilateral headache associated with nausea, photophobia and numerous co-morbidities (particularly psychiatric illnesses), and is markedly disabling to the patient in terms of reduced ability to perform their daily activities.[5,6]

CDH affects about 5 per cent of the

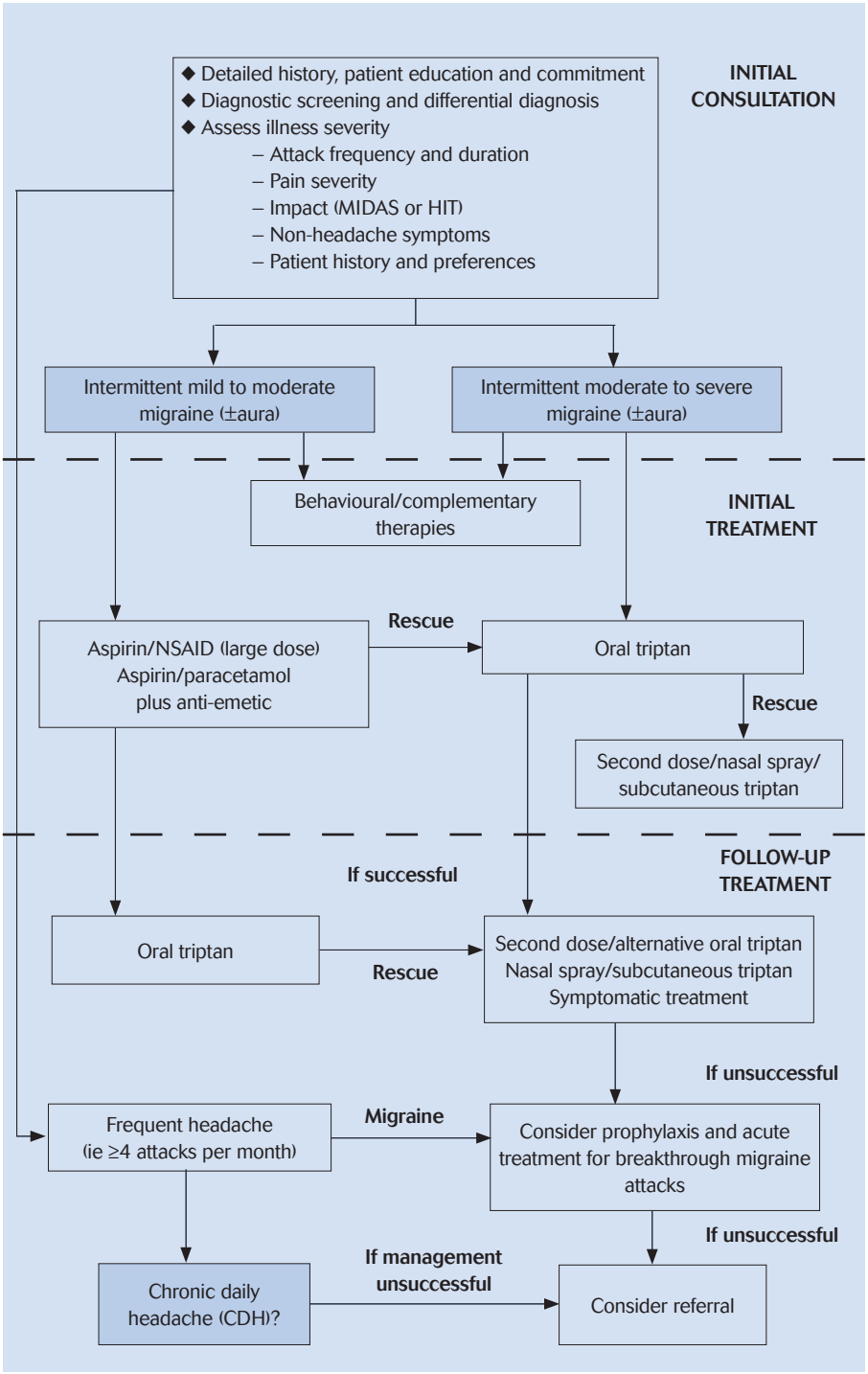

FIGURE 1. The MIPCA algorithm for the management of migraine in primary care (adapted and updated[11])

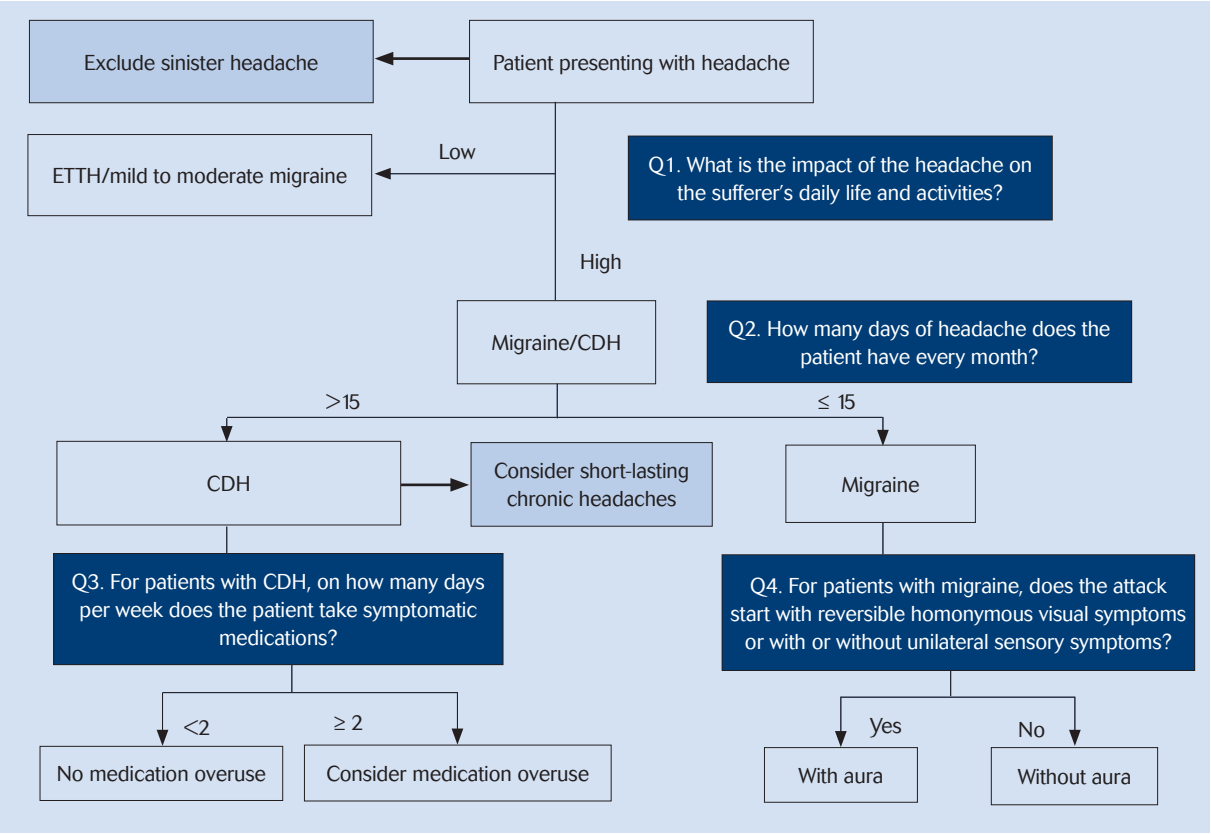

FIGURE 2. The MIPCA algorithm for the differential diagnosis of different headache subtypes[11]

population,[7] and is associated with severe headaches of migraine or TTH-type and chronic fatigue, emotional problems and other co-morbidities.[8] It also has a marked impact on patients' ability to function normally.[9] About half of CDH sufferers overuse symptomatic headache medications (frequently simple analgesics) on a daily or near-daily basis, and withdrawal symptoms are frequently reported when these medications are withdrawn.[10]

For such a common condition, it might be expected that effective healthcare services are available to treat the majority of sufferers.

Unfortunately, this is not so, and headache remains under-recognised, under-diagnosed and under-treated in primary care.[4,6] In particular, half or more of migraine sufferers do not consult a physician, remain undiagnosed and rely on OTC medications.[6] This means that many of them must pass through the doors of community pharmacies for treatment. There is clearly a need for best practice guidance for primary care providers such as optometrists on how to manage patients with headache.

Recently, evidence-based guidelines for the management of migraine in primary care have been developed in the UK,[11] US[12] and Canada,[13] and for chronic headaches in the UK.[14] From the UK guidelines, recommendations have been published to help nurses[15] and patients themselves[16] manage migraine.

This article describes the development of headache guidelines for pharmacists and primary care providers in the UK.

METHODOLOGY

The UK headache guidelines initiative[11,14-16] was co-ordinated by the Migraine in Primary Care Advisors (MIPCA: www.mipca.org.uk), a UK-based charity dedicated to the improvement of headache services in primary care.

Pharmacy headache guidelines were developed at a MIPCA meeting of pharmacist, GP and nurse members, in association with the Migraine Action Association (the UK patient support group: www.migraine.org.uk). Drafting of the guidelines involved extensive input from community pharmacists, pharmacy advisers, an optometrist, GPs and nurses. Research included literature searches accessed via MedLine, monitoring of relevant presentations at international headache and neurology congresses and outputs sourced from the DoH and the Royal Pharmaceutical Society.

SUMMARY OF MIPCA GUIDELINES

Principles of care

The MIPCA guidelines for migraine and chronic headache are based on seven principles of care that are generic in scope:

- Screening
- Patient education and commitment
- Differential diagnosis
- Assessment of illness severity
- Tailoring management to the needs of the individual patient
- Pro-active long-term follow up
- A team approach to care.

These principles can be used for all headache subtypes, with customisation of the medications prescribed. Figure 1 summarises the principles for the management of migraine.

SCREENING

Taking a headache history is used to obtain all the information needed during the initial screening procedures. The questions elicit:

- The frequency, duration, severity, quality and location of the headache and associated symptoms
- The patient's functional impairment during the headache
- Medications used and their effectiveness and side effects.

For migraine, the physician looks out for a pattern of episodic, disabling headaches, while for chronic headaches, the pattern is frequent, disabling headaches, with or without a daily or near-daily consumption of headache medications.

PATIENT EDUCATION

Part of the screening process is the provision of information to the patient, in the form of oral advice, leaflets, website addresses and details of patient support organisations. Equally important

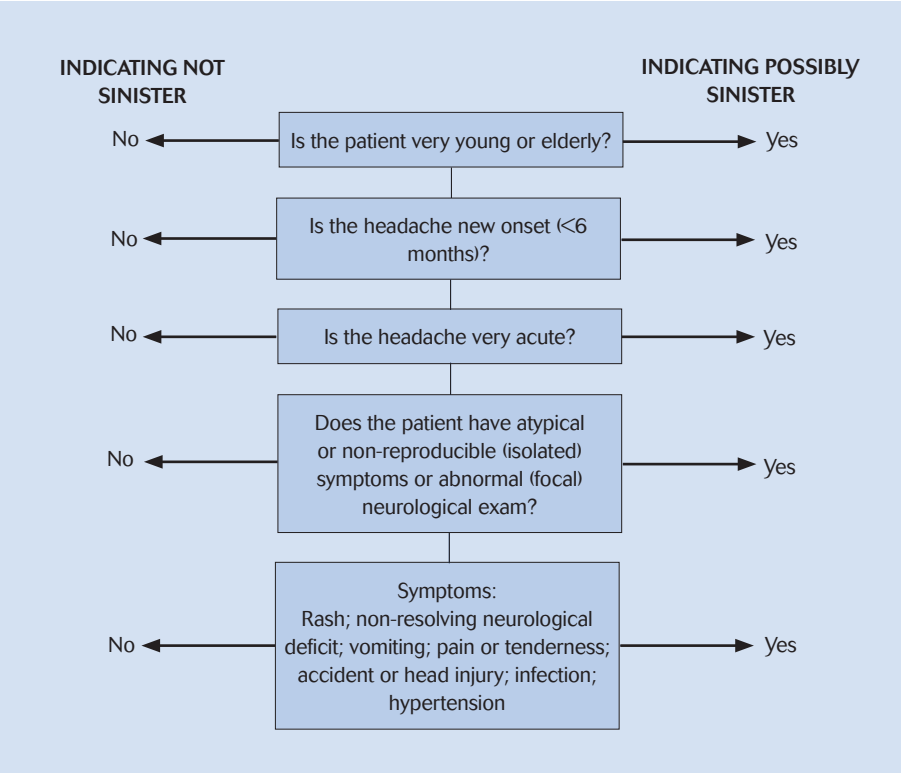

FIGURE 3. The MIPCA algorithm for the diagnosis of possible sinister headache

is to elicit their commitment to the care process, explaining and implementing a long-term approach to care, so that the patient can take charge of their own management. This requires effective communication between the patient and the healthcare professional.

DIFFERENTIAL DIAGNOSIS

UK guidelines for migraine[11] and chronic headaches[14] propose the use of a simple screening questionnaire for the initial diagnosis of headache subtypes (Figure 2).

The questions are based on diagnostic criteria defined by the International Headache Society (IHS).[2] If necessary, further questions can be used to confirm the diagnosis. In using this questionnaire, sinister headaches should always be excluded before asking any of the questions, and another questionnaire can be used to elicit sinister headaches (Figure 3).[17]

The common headache subtypes are relatively simple to diagnose using this scheme. A high-impact headache (question 1) is indicative of migraine or CDH, whereas a low-impact headache indicates episodic TTH. Impact can be assessed by simple questioning or by using one of the available impact questionnaires: the migraine disability assessment (MIDAS) questionnaire[18] or the headache impact test (HIT).[19] Episodic (on <15 days per month), high-impact headaches are indicative of migraine. However, if the patient has more than 15 days of headache every month, with an average duration of four hours or more, a diagnosis of CDH is indicated (Question 2). For patients with CDH, medication overuse headache (MOH) is indicated if the patient takes symptomatic medications (eg analgesics, ergots or triptans) on two or more days per week (Question 3). Less than two days of medication use per week indicates that the headache is not due to medication overuse.

TAILORING MANAGEMENT TO THE PATIENT'S INDIVIDUAL NEEDS

Assessing the severity of the patient's headache is an appropriate way to enable the selection of treatments. To achieve this, the physician assesses headache impact, frequency and duration, pain severity, non-pain symptoms, patient preferences and co-morbidities. For patients with suspected CDH, additional questions can be asked on the potential abuse of symptomatic medications and the presence of neck stiffness and/or restricted neck movement. If these assessments indicate mild-to-moderate illness severity, conservative management may be appropriate. However, a moderate-to-severe assessment indicates the need for immediate and comprehensive care. The patient's preferences and co-morbidities are also important in this process. In addition, it is important to have goals for the headache management plan, to have guidelines set up for the success or failure of interventions. These goals cover the relief or prevention of headaches, and the ability to return to normal activities.

Treatments should be provided that are appropriate to the patient's needs, using, wherever possible, therapies that have demonstrated objective evidence of favourable efficacy and safety in randomised, controlled clinical studies.[12] Many of these medications are standard OTC medicines and in theory could be supplied by an optometrist. However, unless the optometrist is familiar with all the contra-indications and interactions, it is recommended that medication should be supplied by the pharmacist. Rescue medications are also widely available and are required for treatment failures or when symptoms break through. The choice of treatments needs to be customised to the specific headache subtype. Simple analgesics are usually effective as acute treatments for episodic TTH, eg paracetamol, aspirin and NSAIDs.

For migraine, analgesic-based therapies may be appropriate as acute treatment for patients with mild-to-moderate intensity attacks, while triptans are usually needed for those with moderate-to-severe attacks. Faster-acting non-oral nasal spray and subcutaneous injection triptan formulations may be required for patients with particularly severe or unpredictable attacks, and for those with associated nausea and vomiting.

Prophylactic treatment may be required for patients with frequent attacks (= 4 per month), or where acute medications are ineffective or precluded by safety concerns.[20] The usual prophylactic medication prescribed is a beta-blocker (most often propranolol). A neuromodulator or an antidepressant may also be effective, although these drugs are not licensed for migraine in the UK.

Behavioural (eg biofeedback, relaxation, stress-reduction and trigger avoidance) and complementary therapies (eg feverfew, magnesium, vitamin B2, butterbur and acupuncture) are also useful as adjunctive prophylaxis for migraine. Unfortunately, the evidence base for CDH treatments is suboptimal and specific therapies cannot be recommended. The strategy for managing CDH is multi-phasic, involving neck exercises for those with a history of head injury or neck stiffness, the withdrawal of any overused medications, introduction of headache prophylaxis and limited acute medications to deal with breakthrough attacks.

LONG-TERM FOLLOW UP

Proactive, long-term follow up is a key strategy in the management of all headaches. Procedures are implemented to assess the patient's pattern of headaches and their response to therapy. Headache diaries and impact questionnaires are invaluable in this regard. Alternative therapies are provided for patients who have failed on initial treatments. For

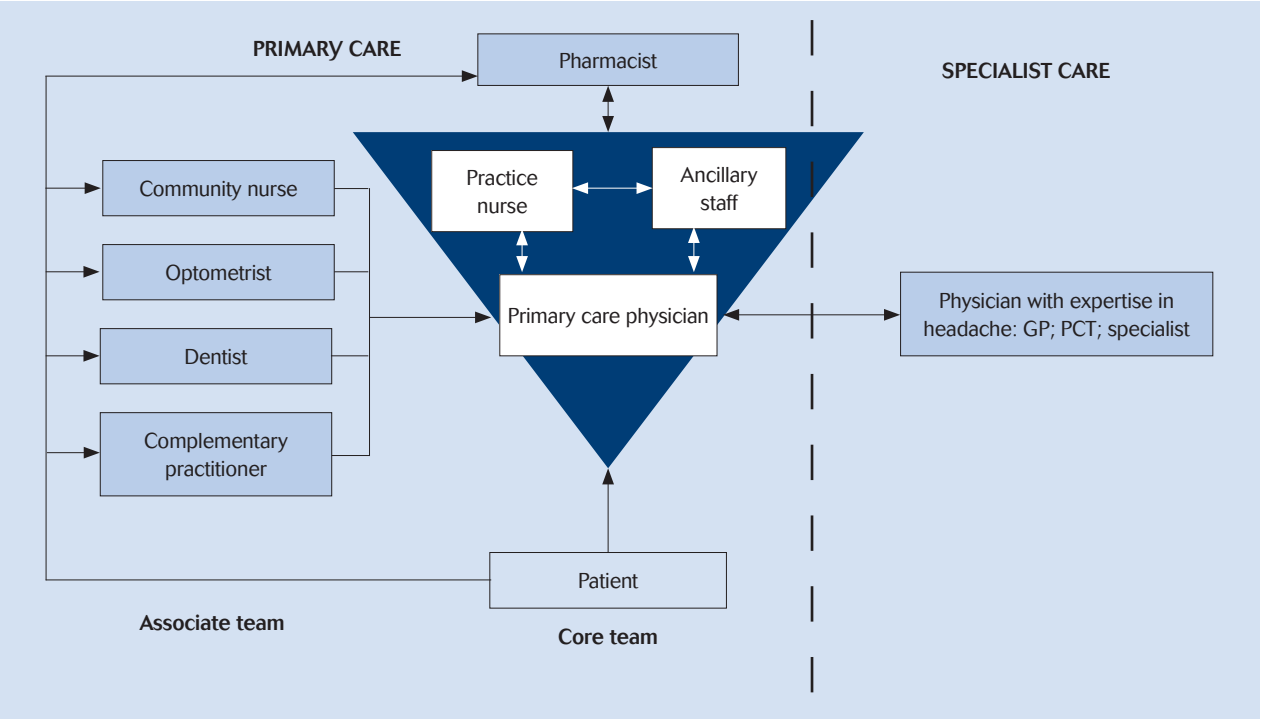

FIGURE 4. The MIPCA algorithm for the primary care headache team

this process to be successful, long-term commitment from both the patient and the healthcare provider are required.

THE TEAM APPROACH TO CARE

One of the primary aims of MIPCA's new guidelines is to encourage the management of headache in primary care. To make this work, a team approach is recommended, with the primary care physician concentrating on accurate diagnosis and prescription of appropriate treatments. The practice nurse forms the first point of contact for the patient and conducts routine assessment procedures. Other healthcare professionals (eg pharmacists, opticians and dentists) may identify patients in the general population and direct them into the team (Figure 4). This scheme is now used as the model for the National Service Framework for Long-term Conditions.[21]

The next article will look at specific management guidelines and protocols of which all optometrists should be aware.

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