

# Guidelines for community pharmacists on the management of headache

Headache is a significant public health problem that is often suitable for pharmacists to manage because patients turn to them for help or to self-medicate, rather than visit their GP. **Christine Glover** and colleagues outline their evidence-based guidelines for pharmacists

Pharmacists are likely to have an enhanced role in headache management in the future after the switch of drugs, such as sumatriptan, from prescription only (POM) to pharmacy (P) medicine status.

NHS reform is providing an opportunity for pharmacists to expand their role by becoming supplementary and independent prescribers or by providing minor ailments services in community pharmacies: this is now a core service in Scotland.

The main challenges for implementing a pharmacy-run headache service are the provision of training and management algorithms, payment for these enhanced services and auditing their success. The guidelines presented here put a framework in place to help pharmacists manage headache better. The guidelines may be customised for use by other healthcare professionals, such as dentists, opticians and complementary practitioners.

Headache is a widespread condition, with estimates of 93 per cent of the population experiencing one or more headaches in their lifetimes, while 11 per cent of men and 22 per cent of women have a headache at any point in time.<sup>1</sup> The most frequently reported headaches are the benign primary headaches of episodic tension-type headache (TTH), episodic migraine and chronic daily headache (CDH, now categorised primarily as chronic migraine and chronic TTH, together with some rarer headaches).

**Christine Glover, BSc, FRPharmS**, is proprietor of Glovers Integrated Healthcare, Edinburgh; **Sally Greensmith, MRPharmS**, is assistant director of medicines management (community pharmacy) at the National Prescribing Centre; **Alison Ranftler, MRPharmS**, is a community pharmacist, in Northwich, Cheshire; **Gillian Donkin, BPharm, MRPharmS**, is a community pharmacist in Woking, Surrey; **Lisa Jamieson, MSc, MRPharmS**, is lead prescribing support pharmacist at Surrey Health and Woking Primary Care Trust; **Peter Charlesworth, MSc, MCOptom**, is an optometrist and director of replay learning, in Thornhill, Dumfries and Galloway; **Ann Turner** is a former director of the Migraine Action Association; **Andrew Dowson, MBBS, PhD**, is director of the King's Headache Service

Correspondence to: Dr Dowson at King's College Hospital, Denmark Hill, London SE5 9RS

## Panel 1: Prevalence and features of common headaches

Headache subtype	Prevalence	Clinical features
Tension-type headache (TTH)	63% male 86% female <sup>1</sup>	Mild to moderate Bilateral Associated fatigue Little effect on daily functions <sup>2,3</sup>
Migraine	8% male 18% female <sup>4</sup>	Moderate to severe Unilateral Associated nausea, photophobia Numerous co-morbidities (especially psychiatric illnesses) Markedly affects daily activities
Chronic daily headache (CDH) (mostly chronic migraine and chronic TTH)	1% male 8.7% female <sup>7</sup>	Severe headache (migraine or TTH-like) Associated chronic fatigue, emotional problems and co-morbidities Markedly affects daily activities Frequent overuse of symptom medicines <sup>10</sup>

CDH comprises daily or near-daily headaches that last for more than four hours on average, often linked to medication overuse. In the UK overuse of products that contain codeine, such as Nurofen Plus, Solpadeine and Syndol, may be a major contributor to medication overuse headache (MOH).

Patients often do not realise these drugs contain codeine and it can be a problem to identify codeine users in pharmacy practice. However, it is worth taking time to establish whether codeine is implicated. CDH usually arises from a primary, episodic headache disorder (migraine or TTH).<sup>2</sup> Other headache subtypes are relatively uncommon, affecting less than 1 per cent of the population. Panel 1 shows the prevalence and clinical features of common headache subtypes.<sup>1-10</sup>

For such a common condition, it might be expected that effective healthcare services would be available to treat most sufferers. Unfortunately, this is not so, and headache remains under-recognised, under-diagnosed and under-treated in primary care.<sup>4,6</sup> In particular, half or more of migraine sufferers do not consult a physician, remain undiagnosed and rely on over-the-counter (OTC) medicines.<sup>6</sup> This means that many of them pass through the doors of community pharmacies for treatment.

There is a need for best practice guidance for the pharmacist 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,<sup>11</sup> US<sup>12</sup> and Canada,<sup>13</sup> and for chronic headaches in the UK.<sup>14</sup> From the UK guidelines, recommendations have been published to help nurses<sup>15</sup> and patients<sup>16</sup> to manage migraine. This article describes the development of headache guidelines for pharmacists in the UK.

The UK headache guidelines initiative<sup>11,14-16</sup> was co-ordinated by the Migraine in Primary Care Advisors (MIPCA) charity, which is dedicated to the improvement of headache services in primary care in the UK. Pharmacy headache guidelines were developed at a MIPCA meeting of pharmacist, GP and nurse members, in association with the UK patient support group Migraine Action Association.

Drafting 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 Department of Health and the Royal Pharmaceutical Society.

## Summary of MIPCA guidelines

The MIPCA GP guidelines for migraine and chronic headache are based on seven generic principles of care: screening, patient education and commitment, differential diagnosis,

## Panel 2: MIPCA/MAA 8-item diagnostic screening questionnaire (DSQ) and associated algorithm<sup>29</sup>

1. Has the pattern of your headaches been generally stable (ie, no change or only small changes in frequency and severity) over the past few months? Yes  No
2. Have you had headaches for longer than six months? Yes  No
3. Are you aged between 5 and 50 years? Yes  No
4. Does the headache interfere to a noticeable extent with your normal daily life (work, education and social activities)? Yes  No
5. On average, how many days with headache do you have per month? Less than 1  1  1–4  5–15  15–30  Every day
6. On average, how long do your headaches last, if left untreated?  
Less than 15 minutes  15 minutes to 1 hour  1–2 hours  2–4 hours  Over 4 hours  My headaches are always there
7. On average, on how many days per week do you take analgesic medicines? Less than 1  1  Up to 2  2 or more  Every day
8. Do changes in your senses (sight, taste, smell or touch) occur in the period immediately before the headache starts? Yes  No

NB. If the patient answers No to questions 1, 2, or 3, they may have sinister headache. They should be advised to seek immediate medical advice from their GP. If the patient answers Yes to questions 1, 2 and 3, they should complete the remainder of the questionnaire.

### Diagnostic algorithm

A 'no' answer to questions 1, 2 or 3 indicates the possibility of secondary (or sinister) headaches. These patients should be investigated further and should not complete the remaining questions.

For patients who answer 'yes' to questions 1–3:

#### ■ Question 4:

- 'No' = episodic tension-type headache
- 'Yes' = migraine or chronic headache

#### ■ Question 5:

- < 1; 1; 1–4 and 5–15 days = migraine
- 15–30 days and every day = chronic headache

#### ■ Question 6: For patients with chronic headaches only:

- < 15 minutes = investigate further
- 15 minutes to 1 hour = possible cluster headache, investigate further
- 1–2 and 2–4 hours = investigate further
- Over 4 hours and headaches always there = chronic daily headache (CDH)

#### ■ Question 7: For patients with CDH only:

- < 1; 1; up to 2 = CDH without medication overuse
- 2 or more and every day = CDH with medication overuse (MOH)

#### ■ Question 8: For patients with migraine only:

- Yes = migraine with aura
- No = migraine without aura.

assessment of illness severity, tailoring management to the needs of the individual patient, proactive, long-term follow up and a team approach.

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

**Screening** A headache history is used to elicit the information needed during the initial screening procedures. The questions cover:

- The frequency, duration, severity, quality and location of the headache and associated symptoms
- The patient's functional impairment during the headache
- Medicines 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 medicines.

**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.

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

**Differential diagnosis** UK guidelines for migraine<sup>11</sup> and chronic headaches<sup>14</sup> propose the use of a simple screening questionnaire for the initial diagnosis of headache subtypes (Panel 2).

The questions are based on diagnostic criteria defined by the International Headache Society (IHS).<sup>2</sup>

Further questions can be used to confirm the diagnosis, if necessary. In using this questionnaire, sinister headaches are excluded (questions 1–3) before completing the rest of the questionnaire.<sup>17</sup>

The common headache subtypes are relatively simple to diagnose using this scheme. A high-impact headache (question 4) 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<sup>18</sup> or the Headache Impact Test (HIT).<sup>19</sup>

Episodic (on fewer than 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 5). For patients with CDH, medication overuse headache (MOH) is indicated if the patient takes medicines (such as analgesics, ergots or triptans) for the relief of symptoms on two or more days a week (question 7). Less than two days of medicines use a week indicates that the headache is not due to medicines overuse.

### Tailoring management to need

Assessing the severity of a 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 symptom medicines and the presence of neck stiffness or restricted neck movement. If these assessments indicate mild to moderate illness 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 important in this process. It is important to have goals for the headache

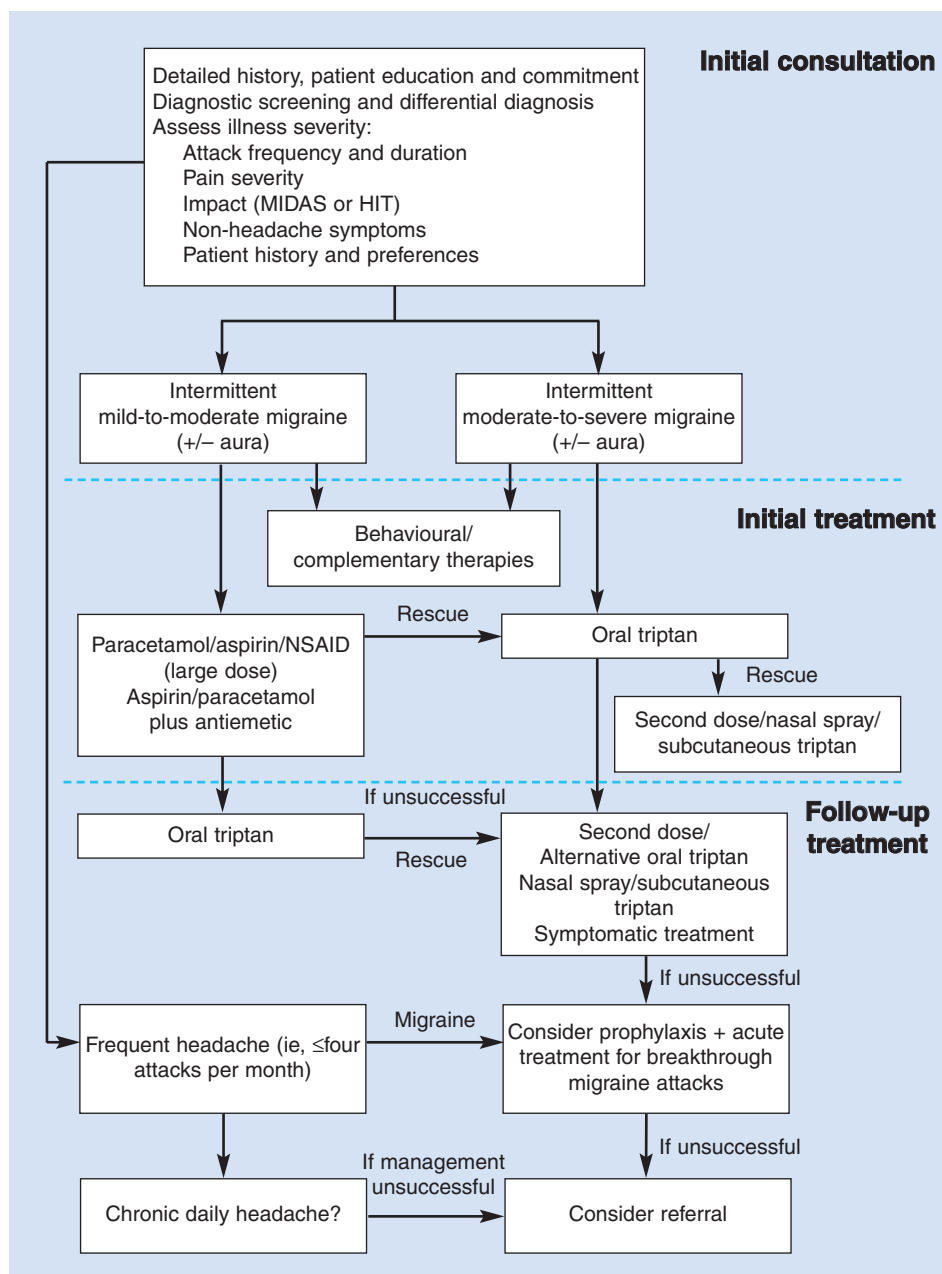


Figure 1: A summary of the principles for the management of headache<sup>11</sup>

management plan and guidelines 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 a patient's needs, using, where possible, therapies that have demonstrated objective evidence of favourable efficacy and safety in randomised, controlled clinical studies.<sup>12</sup> Rescue medicines are also required for treatment failures or when symptoms breakthrough. The choice of treatments needs to be customised to the specific headache subtype.

**Treatments recommended in the MIPCA GP guidelines** Simple analgesics are usually effective as acute treatment for episodic TTH, for example paracetamol, aspirin and non-steroidal anti-inflammatory drugs. For migraine, analgesic-based therapies may be appropriate as acute treatment for patients with mild to moderate intensity at-

tacks, although triptans are usually needed for moderate to severe attacks.

Faster-acting 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 needed for patients with frequent attacks (at least four per month), or where acute medicines are ineffective or precluded by safety concerns.<sup>20</sup> The usual prophylactic medicine prescribed is a beta-blocker (most often propranolol).

A neuromodulator or an antidepressant may also be effective, although not all of these drugs are licensed for migraine in the UK. Behavioural (eg, biofeedback, relaxation, stress-reduction and trigger avoidance) and complementary therapies (eg, feverfew, magnesium, riboflavin, butterbur and acupuncture) are also useful as adjunctive prophylaxis for migraine.

Dosing for complementary therapies can

sometimes be problematic, but in controlled studies feverfew extract 6.25mg *tds*,<sup>21</sup> trimagnesium dicitrate 600mg *od*,<sup>22</sup> riboflavin 400mg *od*,<sup>23</sup> and butterbur root (*Petasites hybridus*) 75mg *bd*<sup>24</sup> were all shown to be effective and well tolerated.

Unfortunately, the evidence base for CDH treatments is suboptimal and specific therapies cannot be recommended. The strategy for managing CDH is multiphasic, involving neck exercises for those with a history of head injury or neck stiffness, the withdrawal of any overused medicines, introduction of headache prophylaxis and limited acute medicines to deal with breakthrough attacks.

**Long-term follow up** Ideally, a long-term strategy is needed for the management of all headaches. Procedures are implemented to assess a patient's pattern of headaches and his or her response to therapy. Headache diaries and impact questionnaires are invaluable. Alternative therapies are provided for patients who have failed on initial treatments. For this process to be successful, long-term commitment from both the patient and the health-care 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 health-care professionals — such as pharmacists, opticians and dentists — may identify patients in the general population and direct them into the team (Figure 2). This scheme is used as the model for the National Service Framework for Long-term Conditions.<sup>25</sup>

### Developing pharmacy guidelines

A study in the US showed that community pharmacists typically advise or treat several headache sufferers every day.<sup>26</sup> However, few of the pharmacists were familiar with practice guidelines for headache or the appropriate therapies to use. The authors concluded that pharmacists required further training on headache management. These findings are confirmed in UK<sup>27</sup> and French<sup>28</sup> surveys, where 15 per cent or less of patients attending a secondary care clinic for headache had previously consulted a pharmacist for their headache at any time.

The data suggest that initiatives aimed at the pharmacist have the potential to improve headache management, and possibly reduce the impact on primary and secondary care services. The following sections provide guidance for the pharmacist on headache management, focusing on initial screening, diagnostic testing, treatment options and follow-up.

Not every patient with a headache presents at the pharmacy. However, government

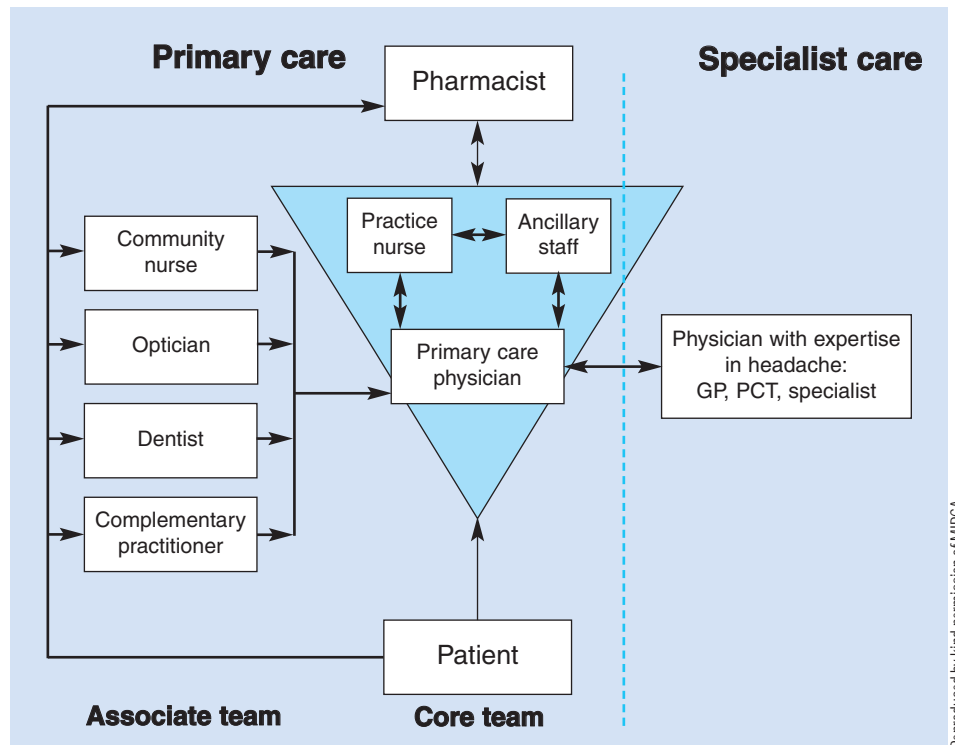
policy is to direct patients away from the GP, using community pharmacies as the first port of call for minor health ailments and paying pharmacists for providing the service. Headache management is suitable for this service. A patient with a headache may start by taking an OTC medicine that he or she may have bought from a corner shop. However, if headache recurs or is not managed with this drug, the next step is often (although not always) a pharmacy. The opportunity to offer a more structured care approach is likely to be valuable to patients, the overloaded NHS and the Treasury.

A final point is that many patients with severe headaches never consult a GP<sup>6</sup>. If they did the healthcare system would not be able to cope. These guidelines, therefore, do not cover everyone with a headache, but do cover those who use a pharmacy. This limits the options for intervention but aims to improve the quality of the intervention when it is made.

**Patient screening** The pharmacy is a suitable place for the initial screening of headache sufferers. Customers may ask spontaneously about headache or be attracted by advertising in the pharmacy or the local press. Otherwise, a good starting point is to ask customers who want to buy analgesics if they need them for headache. This is likely to uncover many new headache patients, since relatively few headache sufferers consult a GP for care.<sup>6</sup> Additionally, sufferers may find it easier to talk to a pharmacist than to a GP. Once a headache sufferer is identified, the pharmacist may be able to provide advice in the form of leaflets, newsletters, and information on websites and patient support organisations. The MAA, MIPCA and the Migraine Trust ([www.migrainetrust.org](http://www.migrainetrust.org)) provide appropriate outputs that can be used.

There may be difficulties in asking every patient who wants analgesics if they have problematic headaches, especially as pharmacists do not always supervise counter sales. However, those pharmacists who want to use the guidelines and do a more professional job will make time, maybe by adopting an appointment system, for patients to return to the pharmacy. In our experience, most people are keen to have the chance to talk about their problem with an interested and informed healthcare professional. A good pharmacist will ask patients if they experience frequent headaches so they can pursue a different approach to those with episodic headaches.

**Diagnostic testing** Epidemiological studies tell us that most headache sufferers have episodic TTH, with migraine and CDH in turn being the next two most common subtypes.<sup>1,4,7</sup> The vast majority of sufferers consulting a pharmacist will have these conditions. The rarer primary headaches and the sinister (secondary) headaches tend to have associated severe symptoms that are



**Figure 2: Different healthcare professionals may identify headache patients and direct them into the core management team<sup>11</sup>**

likely to drive sufferers to their GPs.<sup>17</sup> However, it is important that pharmacists are able to screen patients into relevant diagnostic groups for further evaluation. MIPCA and the MAA have developed an eight-item Diagnostic Screening Questionnaire (DSQ) for headache that differentiates between headache subtypes and is designed for use when the patient first consults for headache (Panel 2).<sup>29</sup>

The DSQ screens for sinister headaches (questions 1–3), episodic TTH (question 4), migraine (questions 4–6) with and without aura (question 8), and CDH (questions 4–7) with and without MOH (question 7). A study where pharmacists and patients completed the DSQ and compared their diagnostic accuracy with GPs and headache specialists showed that the DSQ was easy and rapid to complete, and exhibited good sensitivity, particularly for migraine (total migraine and migraine with and without aura) and CDH with MOH.<sup>29</sup>

The accuracy of the pharmacists' headache diagnosis was improved markedly when they used the DSQ, compared with when they used their own judgement, particularly with regard to diagnosing migraine with and without aura and MOH. Using the DSQ, pharmacists' diagnostic accuracy was similar to that of a GP.<sup>29</sup> These data indicate that the DSQ is a good screening questionnaire for headache patients, and suitable for everyday use by pharmacists.

**Headache management** Following the diagnostic procedure, the pharmacist can move on to deciding the best management option. A short series of questions provides the information required:

- Assess the severity of the patient's illness as mild to moderate or moderate to severe. Assessments should be made of the severity of the headache and other associated symptoms, and of the impact of the headache on the patient's daily activities. Impact can be assessed using specific questionnaires (eg, the MIDAS<sup>18</sup> and HIT<sup>19</sup> questionnaires), although a simple question can also suffice, such as: "How do your headaches interfere with your normal daily activities?"
- Ask about the medicines that the patient is currently taking for headache and whether he or she finds them effective or not.
- Ask about the patient's co-morbidities and concomitant medication use.

Based on this information the pharmacist can make a decision about the best course of action (Figure 3):

- Any patient suspected of having a sinister headache should be advised to see his or her GP immediately.
- Patients with episodic TTH can usually be managed with OTC analgesics (eg, paracetamol, aspirin and NSAIDs). If one analgesic does not work, another may be provided.
- Patients with mild-to-moderate migraine may also be managed with OTC analgesics. Numerous placebo-controlled studies have demonstrated the efficacy of paracetamol, aspirin and NSAIDs for relatively mild migraine.<sup>12</sup> These treatments should be taken as soon as possible after the migraine attack starts, if possible even before the onset of the headache.

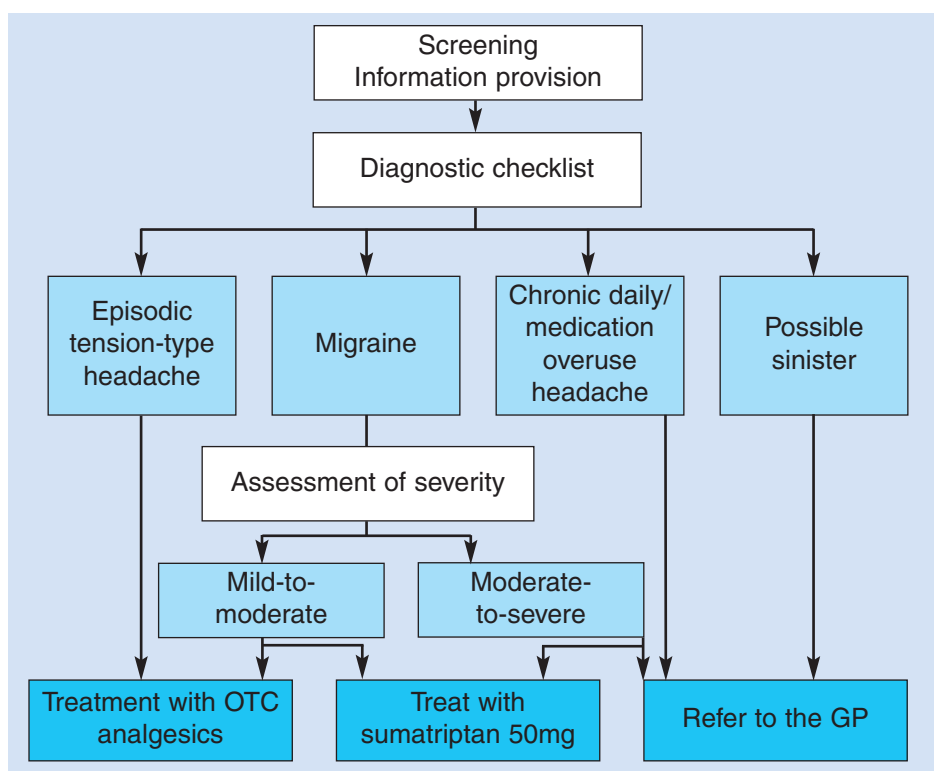
Appropriate patients who have previously failed on analgesics may be managed with OTC sumatriptan 50mg (Imigran Recovery) given with a pharmacy prescription or referred to their GPs. Pharmacists can also sell prochlorperazine 3mg (Buccastem) for nausea and vomiting associated with migraine.

- Patients with moderate to severe migraine are likely to require a triptan for effective treatment. They can be given OTC sumatriptan 50mg or referred to their GP.
- Migraine patients can be advised to take up lifestyle options such as stress reduction strategies and trigger avoidance. They may also be recommended behavioural (eg, biofeedback and relaxation), physical (eg, cervical manipulation, acupuncture, massage and exercise) and complementary therapies (eg, feverfew, magnesium, riboflavin and butterbur), allowing for any potential interactions with other conditions, in addition to pharmaceutical therapies.
- Patients with CDH may be difficult to manage even in primary care, and are best referred to their GPs.

The following factors need to be taken into consideration when selling acute medicines to headache patients:

- Check whether the patient has used the medicine before. If so, and it has been effective, it is suitable for further use. If the medicine was ineffective, it is better to use another medicine, or to refer the patient to the GP.
- Refer to the pharmacy prescribing guidelines before selling sumatriptan 50mg to a patient (see the later section “Switching migraine medications from POM to P status”).
- Patients should not be given codeine-containing drugs on a regular basis. Those taking such therapies on more than one day per week are probably best referred to the GP.
- Beware of the possibility of CDH if the patient is taking analgesics on two days or more per week. Such patients are probably best referred to their GPs.
- Check on the patient’s co-morbidities and concurrent medicines, as these may preclude certain medicines, eg, asthma sufferers should not be sold aspirin or NSAIDs.

**Follow-up** Pharmacists have a role in follow-up. The patient should be asked to return after one month for review. Patients treated effectively with acute medicines should continue on this therapy, but those who have not responded need to be offered another medicine, or referred to the GP if analgesics are failing. Patients should be encouraged to continue with lifestyle, behavioural, physical and complementary therapies and advised that regular treatment is necessary and that they may not notice improvement for several weeks.



**Figure 3: Patient screening — headache management algorithm for making a decision on the best course of action for a patient**

This long-term approach is used in headache/migraine clinics and, if the patient has engaged with a pharmacist who uses the MIPCA guidelines, the opportunity for the pharmacist to develop follow-up and long-term management is there. Finally, this system makes referrals to GPs, when they occur, much more robust and pharmacists should feel more confident about referring patients.

The pharmacist has one other role: as a mentor for patients who have consulted a GP. Patients return to the pharmacist to have their prescriptions filled. By listening to the patient and checking on how they are progressing, the pharmacist may be able to identify potential problems, which can then be referred back to the GP. Pharmacists already perform this as a key role but the opportunity to check on how the patient is progressing is a win-win situation for all parties.

### Opportunities and challenges

**Implications of the new NHS** Setting up a headache management service needs to fit in with the changing face of the NHS. It provides opportunities as well as challenges for pharmacists. As part of its overhaul of the NHS, the Government proposed an enhanced role for community pharmacists in England in 2000.<sup>30</sup> Relevant changes included improving patient access to medicines and services, using pharmacists for health promotion and public health advice, making it easier for medicines to move from POM to P status and encouraging pharmacists to help manage patients in conjunction with other health professionals.

Ten key roles for community pharmacists were outlined in 2003 (Panel 3), providing

advice and support, prescriptions and management services to patients and other healthcare professionals.<sup>31</sup> Pharmacy-based headache management services have potential applications for all these roles (Panel 3). This vision for pharmacies is reflected in the new pharmacy contract for England and Wales, launched in April 2005,<sup>31</sup> (together with the Scottish minor ailments and public services introduced in July 2006) which rewards professionals for the range and quality of services they provide, rather than the quantity of medicines dispensed.

A headache management service would fit in well with the range of essential (eg, dispensing and repeat dispensing, promotion of healthy lifestyles and support for self care) and optional enhanced services (eg, medicines assessment and compliance support, patient group direction service, medication review and supplementary prescribing) outlined for community pharmacists in the contract.<sup>32</sup>

**Organisational issues** Research shows that most headache management is conducted below the primary care level, and demand on pharmacists’ time may therefore be considerable. A pharmacy headache service needs to be driven by the interest and enthusiasm of the pharmacist and the counter staff, and rewards need to be provided for the development of the necessary skills. Some form of payment for consultation may be the best way to achieve this. Appropriate training schemes also need to be set up for all pharmacy staff.

A private area for pharmacy consultations is required, so that screening and advice can be given confidentially, and these are now being added to pharmacy premises at a rapid

rate. They are now the norm for pharmacists seeking to extend their services. Staff at the counter will most often conduct the initial, albeit brief, screen.

### Implications for screening services

The initial stage in headache screening is the first contact with the patient and engagement in a dialogue. In pharmacies, counter staff are most likely to be involved in these procedures. Press advertisements and door posters, and signs and leaflets alongside headache products in the pharmacy, will attract patients directly to the pharmacist. In addition, patients who ask for analgesics can be asked if they are taking them for headache, and if so, can be directed to the pharmacist. Few problems are anticipated, because patients generally want to develop a good relationship with the pharmacist. However, consistent information sources and guidelines are required for professionals and patients, so that patients can be empowered to manage their own condition.

**Implications for diagnosis** One weakness identified at the MIPCA meeting (see p311) was a major gap in pharmacists' knowledge of diagnosing headache. However, the subsequent development and validation of the diagnostic screening questionnaire (DSQ, Panel 2)<sup>29</sup> may overcome this problem and improve pharmacists' confidence in diagnosis. Training may be needed to aid the use of the DSQ and further clinical studies with the DSQ are warranted to define its full clinical utility.

### Implications on evaluation and treatment

In general, pharmacists at the MIPCA meeting welcomed pharmacy guidelines for headache management as an opportunity for pharmacists. Current changes in the NHS — such as GP surgeries closing at weekends and the services advocated in the new GP contract<sup>33</sup> — are increasing demand for pharmacy services. The use of guidelines in initial patient management was thought to be especially relevant. However, follow-up arrangements could be problematic, as patients tend to use different management sources, eg, contacting the MAA for support.

Evaluating patients can be complex and challenging for healthcare professionals. However, an accurate diagnosis is the key and this is greatly helped by use of the DSQ.<sup>29</sup> A diagnosis of episodic TTH and CDH specifies the next step (prescription of OTC analgesics and referral to the GP, respectively). The diagnosis of migraine requires further evaluation by stratification into mild-to-moderate or moderate-to-severe intensity. Impact questionnaires are often used for this, but are probably inappropriate for the pharmacist, because even GPs can find them difficult to use.

The following three questions may prove useful as an alternative:

- On average, how intense are your migraines (none, mild, moderate, severe, excruciating)?

## Panel 3: 10 key roles for pharmacy in headache management<sup>31</sup>

Number	Key role	Relevance to headache management
1	To prescribe medicines and monitor outcomes	Role in provision of OTC and some clinical complementary therapies
2	To provide convenient patient access to prescription and other medicines	Role in the provision of OTC and some complementary therapies
3	To advise patients and other health professionals on the safe and effective use of medicines	Role in screening and treating patients and as part of the professional headache team
4	To be the first point of contact with healthcare service for people in the local community	Role in screening patients
5	To provide medicines management services, especially for people with enduring illnesses	Role in initial evaluation and treatment and in follow-up
6	To promote patients' safety by preventing, detecting and reporting adverse drug reactions and medication errors	Role in initial treatment and follow-up
7	To contribute to the seamless and safe management of medicines throughout the patient journey	Role in follow-up
8	To support patients as partners in taking medicines	Role in screening, evaluation and management
9	To be a public health resource and provide various health promotion, health improvement and harm reduction services	Role in screening
10	To promote value for money in the use of medicines and reduce wastage	Role in treatment and follow-up

*The above are the 10 key roles for pharmacy as identified by the Chief Pharmaceutical Officer,<sup>31</sup> and their relevance to headache management by community pharmacists.*

- On average, how intense are your non-headache migraine symptoms (none, mild, moderate, severe, excruciating)?
- How much do your migraines interfere with your normal daily activities (not at all, a little, a reasonable amount, a lot, unable to do any activities)?

The answers allow patients to be categorised into relevant groups intuitively. "Mild" or "moderate" symptoms and "a little" or "reasonable" activity limitations equate to mild-to-moderate severity; "severe" or "excruciating" symptoms and "a lot" or "unable to do any activities" for activity limitations equate to moderate-to-severe intensity.

Prescribing OTC medicines should be straightforward for most patients, apart from a few caveats:

- Elderly patients are no different from younger ones, unless the patient never normally has headaches and suddenly reports a severe one. In this case the patient should be referred to the GP.
- In using analgesics, patients often ignore

dosage advice on the label and overdose is common. They may buy duplicate versions of the same drug under different names. They may have taken an analgesic at home, without knowing its constituents, then arrive at a pharmacy because the first dose failed and ask for something stronger. Pharmacy staff should ascertain whether patients have already taken something. This is a great moment to identify potential patients for the pharmacy headache management scheme. Research on how patients buy analgesics would be useful to see if they use single or multiple retailers, and to check on the overall level of use.

- There are potential problems when drugs that contain codeine are used chronically (on more than one day per week), with the risk of CDH developing. CDH, in turn, is linked to other types of pain. Pharmacists should check a patient's level of use before selling these medicines. However, some patients move to a different pharmacist if they are asked too many questions, which may lead to problems.

■ Patients are interested in non-drug preventive medicines and may ask for them. However, their use is contraindicated in some patients (eg, feverfew in patients with gastrointestinal disorders). Pharmacists should only sell complementary medicines that they are knowledgeable about (see the Royal Pharmaceutical Society's code of ethics). If the product is licensed it can carry indications for use under new (2006) regulations for herbals. At present, few herbal products have a licence.

It would be useful to develop mathematical algorithms to aid in management decisions. The MIPCA diagnostic algorithm has proved its usefulness, and similar algorithms should be developed for a management algorithm based on Figure 3, with pop-up menus for topics such as co-morbidities, adverse events and drug interactions related to individual medicines. This would allow the pharmacist to work through headache management with the patient and form decisions based on the principles of evidence-based medicine.<sup>12</sup>

There are issues related to follow-up. The potential flow of patients to and from the GP and pharmacist needs to be considered, as it may result in a high demand on services. Patients may have to give consent for pharmacists to advise GPs of their diagnoses and treatments, although the pharmacist may approach the GP in confidence if they are concerned about the patient's health. Local agreements may have to be implemented for follow-up services (eg, between pharmacists and nurses). For this, the smooth working of the local primary care headache team is integral to success, which may be facilitated by regular meetings and locality-based learning schemes.

### The future

Implementation of a pharmacy-based headache service is feasible in the current NHS climate. However, such a service will be shaped by future events, specifically new training schemes, the switching of some migraine drugs from POM to P status, using pharmacists as supplementary prescribers and monitoring the success of the service.

### Developing new training schemes

The pharmacy headache service will not be successful unless pharmacists and counter staff are appropriately trained. Currently there are no such courses available, but there are several potential formats to set them up:

■ Learning packs and courses set up by the Centre for Pharmacy Postgraduate Education (CPPE) in England. Other bodies in Scotland and Wales may set up equivalent courses there. In Scotland, amalgamated courses are available for GPs, nurses and pharmacists, which should help make relevant skills transferable between professionals. A course dedicated to

improving headache diagnosis is the main need, together with improving awareness of the wide variety of headache subtypes encountered.

- The use of Society branch meetings, which are recognised as a normal route for education
- Adaptation of a postgraduate course for GPs currently being developed by MIPCA with the University of Central Lancashire
- Courses aimed at counter staff to improve their understanding of headache

### Switching migraine medicines from POM to P status

Deregulation of certain medicines from POM to P status is a key objective of the UK government, allowing patients to treat a range of conditions for which they previously had to consult their GP.<sup>34</sup> This initiative extends the range of drugs that pharmacists can prescribe. The proton pump inhibitor omeprazole, the statin simvastatin and the antimigraine drug sumatriptan are recent drugs to undergo deregulation, and more are expected shortly. The Society has identified numerous potential candidates for reclassification, including triptans, NSAIDs and combination analgesics for migraine that currently are POM.<sup>35</sup>

There are several potential advantages for POM-to-P switches. The POM medicines are more effective than OTC medicines. Triptans are more effective than non-triptan drugs when used in the clinic.<sup>36</sup> POM NSAIDs may be more effective than OTC equivalents and combination analgesics with antiemetics to treat associated nausea as well as the headache.<sup>12</sup>

Patients tend to keep a range of treatments and take the one they believe is appropriate to treat the presenting attack or to manage their lifestyle needs. Triptans are often perceived as being 'unsafe', but may be safer to use than other acute medicines (eg, they may cause fewer problems than NSAIDs in patients with gastrointestinal problems). Currently, only a small fraction of migraine sufferers receive prescribed triptans.

There are potential disadvantages with triptans. They are contraindicated in some patient groups (eg, those with cardiovascular and cerebrovascular disease, severe renal and hepatic impairment and in pregnant and breast-feeding women) and tolerance or MOH may develop with chronic use.<sup>37</sup> Some antiemetics are associated with unpleasant side effects.

In general, pharmacists at the MIPCA meeting were positive towards the switch from POM to P status for some medicines, including oral triptans. However, they believed that metoclopramide-containing drugs should not switch to P status because of safety concerns.

The recent switch of sumatriptan 50mg to pharmacy medicine status provides patients with a wider choice of treatments that they can purchase for migraine. It could give them

the opportunity to treat a migraine headache at an early stage, avoiding the need to consult a GP and obtain a prescription. It offers the pharmacist an opportunity to gain experience of managing customers with migraine and other headaches. Pharmacists should only sell sumatriptan to patients who have previously failed on analgesics and who meet safety criteria, mostly relating to cardiovascular risk.

The Society has provided pharmacists with detailed guidance on its use. An extensive series of television advertisements has raised patient awareness of the product. However, the current price premium of sumatriptan bought in a pharmacy over the GP prescription cost may well limit its uptake by patients.

There are advantages to having medicines that are unequivocally effective available at the pharmacy, and stakeholders in headache management have welcomed widening the availability of triptans. The sumatriptan model for pharmacy sale, with its strict safety regulations, may provide a basis for future switches. Since we started this work, patient group directions (PGDs) have been introduced and these enable pharmacists to prescribe POM medicines, eg, emergency hormonal contraception, in a given set of circumstances.

### Pharmacists as supplementary prescribers

New arrangements for pharmacists allow them to become supplementary prescribers and independent prescribers, which gives them the opportunity to further use the skill base in headache management. These initiatives are intended to provide patients with quicker and more efficient access to medicines, to make the best use of the clinical skills of eligible professionals and, in time, to reduce GP workload.<sup>38,39</sup> Interested pharmacists are encouraged to investigate the opportunities to expand their prescribing functions.<sup>40</sup> The end result should give patients more choice and greater access to care.

### Monitoring the headache service

Monitoring of pharmacy headache services is required to assess their utility and efficiency. Audits are an effective way of monitoring new medical services and are being extensively introduced into primary care in the new GP contract.<sup>33</sup> Several potential audits have been identified that may be applicable to pharmacists:

- Assessing the number of days of headache and the amount of medicines used
- Assessing the proportion of patients with CDH
- Assessing patient outcomes with and without pharmacy intervention, including initial and follow-up assessments
- Audits to demonstrate the cost-benefit for this service, in terms of saved costs at the PCT level (the smoking cessation service could be used as a model)

There are no specific audit templates for headache. However, the Society has audit templates for chronic diseases<sup>41</sup> and for symptom response<sup>42</sup> that could be adapted for use.

## Conclusions

Headache is eminently suited for management by community pharmacists, and recent changes to the NHS have encouraged the setting up of such a service. Using these guidelines, the enthusiastic community pharmacist has the opportunity to develop his or her practice in a structured and effective way.

The pharmacist and counter staff can engage with the potential patient and, when necessary, screen them for headache, provide information, diagnose the headache subtype and manage the condition, either by selling the patient OTC, pharmacy-only or other medicines, or referral to the GP for management.

In the future, pharmacists are likely to have an expanded range of P drugs available to sell, and an enhanced prescribing role for POM medicines. The main challenges for implementing a headache service are the provision of appropriate training and management al-

gorithms, provision for payment for these enhanced services and auditing of their success.

Potentially, other healthcare professionals, such as dentists, opticians and complementary therapists, could customise these guidelines for use. Consistent guidelines for different professionals will facilitate the working of the primary care headache team. These guidelines put a framework in place to help all pharmacists manage headache better.

## Further information

- Patient support group, Migraine Action Association: [www.migraine.org.uk](http://www.migraine.org.uk)
- Migraine in Primary Care Advisors: [www.mipca.org.uk](http://www.mipca.org.uk). Pharmacists interested in headache are encouraged to join MIPCA, either from the website ([www.mipca.org.uk](http://www.mipca.org.uk)) or by contacting Rebecca Salt at Merrow Park Surgery, Kingfisher Drive, Merrow, Guildford, Surrey GU4 7EP (tel 01483 450755; fax 01483 456740)
- Migraine Trust: [www.migrainetrust.org](http://www.migrainetrust.org)

**ACKNOWLEDGEMENTS** We are indebted to the input of the pharmacists and other healthcare professionals who contributed to this article by providing feedback on the draft manuscript: C. McLelland and R. Swallow (pharmacists); S. Lipscombe, T. Rees and J. Sender (GPs); and R. Salt and H. MacBean (nurses). The MIPCA pharmacist project was sponsored in part by an unrestricted educational grant from Boots Healthcare International.

## References

- Rasmussen BK, Jensen R, Schroll M, Olesen J. Epidemiology of headache in a general population: a prevalence study. *Journal of Clinical Epidemiology* 1991;44:1147–57.
- Headache Classification Committee of the International Headache Society. The international classification of headache disorders; 2nd Edition. *Cephalalgia* 2004;24(Suppl 1):1–160.
- Rasmussen BK. Migraine and tension-type headache in a general population: psychosocial factors. *International Journal of Epidemiology* 1992;21:1138–43.
- Steiner TJ, Scher AI, Stewart WF, Kolodner K, Liberman J, Lipton RB. The prevalence and disability burden of adult migraine in England and their relationships to age, gender and ethnicity. *Cephalalgia* 2003;23:519–27.
- Breslau N, Rasmussen BK. The impact of migraine: epidemiology, risk factors, and comorbidities. *Neurology* 2001;56(Suppl 1):4–12.
- Lipton RB, Goadsby PJ, Sawyer JPC, Blakeborough P, Stewart WF. Migraine: diagnosis and assessment of disability. *Reviews in Contemporary Pharmacotherapy* 2000;11:63–73.
- Castillo J, Muñoz P, Guitera V, Pascual J. Epidemiology of chronic daily headache in the general population. *Headache* 1999;39:190–6.
- Tepper SJ, Rapoport AM, Sheffell FD, Bigal ME. Chronic daily headache — an update. *Headache Care* 2004;1:233–45.
- Bigal ME, Rapoport AM, Lipton RB, Tepper SJ, Sheffell FD. Assessment of migraine disability using the migraine disability assessment (MIDAS) questionnaire: a comparison of chronic migraine with episodic migraine. *Headache* 2003;43:336–42.
- Zwart J-A, Dyb G, Hagen K, Svebak S, Holmen J. Analgesic use: A predictor of chronic pain and medication overuse headache: The Head-HUNT Study. *Neurology* 2003;61:160–4.
- Dowson AJ, Lipscombe S, Sender J, Rees T, Watson D. New guidelines for the management of migraine in primary care. *Current Medical Research and Opinion* 2002;18:414–39.
- Silberstein SD, for the US Headache Consortium. Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review). Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2000;55:754–62.
- Pryse-Phillips WEM, Dodick DW, Edmeads JG, Gawel MJ, Nelson RF, Purdy RA et al. Guidelines for the diagnosis and management of migraine in clinical practice. *Canadian Medical Association Journal* 1997;156:1273–87.
- Dowson AJ, Bradford S, Lipscombe S, Rees T, Sender J, Watson D et al. Managing chronic headaches in the clinic. *International Journal of Clinical Practice* 2004;58:1142–51.
- MacBean H, Leech J, Dungay J, Dowson AJ. New guidelines for the management of migraine by nurses. *Practice Nursing* 2004;15:346–50.
- Turner A, Lipscombe S, Laughy WF, Rees T, Few A, Dowson AJ. New guidelines and questionnaires to help patients manage their migraine. *Headache Care* 2005;2:151–62.
- Dowson AJ, Sender J, Lipscombe S, Cady RK, Tepper SJ, Smith R et al. Establishing principles of migraine management in primary care. *International Journal of Clinical Practice* 2003;57:492–507.
- Stewart WF, Lipton RB, Dowson AJ, Sawyer J. Development and testing of the Migraine Disability Assessment (MIDAS) Questionnaire to assess headache-related disability. *Neurology* 2001;56(Suppl 1):S20–28.
- Kosinski M, Bayliss MS, Bjorner JB, Ware JE Jr, Garber WH, Batenhorst A et al. A six-item short-form survey for measuring headache impact: the HIT-6. *Quality of Life Research* 2003;12:963–74.
- Tepper SJ, D'Amico D, Baos V, Blakeborough P, Dowson AJ. Guidelines for prescribing prophylactic medications for migraine: a survey among headache specialist physicians in different countries. *Headache Care* 2004;1:267–72.
- Diener HC, Pfaffenrath V, Schnitker J, Friede M, Henneicke-von Zepelin HH. Efficacy and safety of 6.25 mg t.i.d. feverfew CO<sub>2</sub>-extract (MIG-99) in migraine prevention—a randomized, double-blind, multicentre, placebo-controlled study. *Cephalalgia* 2005;25:1031–41.
- Peikert A, Wilimzig C, Kohne-Volland R. Prophylaxis of migraine with oral magnesium: results from a prospective, multi-center, placebo-controlled and double-blind randomized study. *Cephalalgia* 1996;16:257–63.
- Schoenen J, Jacquy J, Lenaerts M. Effectiveness of high-dose riboflavin in migraine prophylaxis. A randomized controlled trial. *Neurology* 1998;50:466–70.
- Lipton RB, Gobel H, Einhaupl KM, Wilks K, Mauskop A. Petasites hybridus root (butterbur) is an effective preventive treatment for migraine. *Neurology* 2004;63:2240–4.
- Department of Health. The National Service Framework for Long-term Conditions. London: The Department, 2005.
- Wenzel RG, Lipton RB, Diamond ML, Cady R. Migraine therapy: a survey of pharmacists' knowledge, attitudes, and practice patterns. *Headache* 2005;45:47–52.
- Gahir KK, Larner AJ. What role do community pharmacists currently play in the management of headache? A hospital-based perspective. *International Journal of Clinical Practice* 2004;58:257–9.
- Mihout B, Lanteri-Minet M, Slama A, Nachit-Ouinekh F. Analysis of headache patients' behaviour in the pharmacy: results of a French multicentre study. In: Olesen J, Steiner TJ, Lipton RB, Eds. *Reducing the Burden of Headache*. Oxford: Oxford University Press, 2003; 313–7.
- Dowson AJ, Turner A, Kilminster S, Glover C, Lipscombe S. Development and validation of the headache Diagnostic Screening Questionnaire (DSQ): a new questionnaire for the differential diagnosis of headache for use in primary care. *Headache Care* 2005;2:111–18.
- Department of Health. Pharmacy in the future — implementing the NHS Plan. London: The Department, 2000.
- Department of Health. A vision for pharmacy in the new NHS. London: The Department, 2003.
- Department of Health. Implementing the new Community Pharmacy Contractual Framework. Information for Primary Care Trusts. London: The Department, 2005.
- Department of Health. Investing in general practice: the new General Medical Services contract. London: The Department, 2003.
- Blenkinsopp J. Linking POM to P to PIL — the UK agenda for the EU self-care revolution. *Regulatory Rapporteur* 2005;2:2–5.
- Royal Pharmaceutical Society of Great Britain. Potential candidates for reclassification from POM to P. London: The Society, 2004.
- Dowson AJ, Tepper SJ, Dahlöf C. Patients' preference for triptans and other medications as a tool for assessing the efficacy of acute treatments for migraine. *Journal of Headache and Pain* 2005;6:112–20.
- Katsarava Z, Diener H-C, Limmroth V. Medication overuse headache: a focus on analgesics, ergot alkaloids and triptans. *Drug Safety* 2001;24:921–7.
- Department of Health. Supplementary prescribing by nurses, pharmacists, chiropodists/podiatrists, physiotherapists and radiographers within the NHS in England. A guide for implementation. London: The Department, 2005.
- Royal Pharmaceutical Society of Great Britain. Supplementary prescribing by pharmacists. London: The Society, 2005.
- Royal Pharmaceutical Society of Great Britain. Outline curriculum for training programmes to prepare pharmacist supplementary prescribers. London: The Society, 2002.
- Royal Pharmaceutical Society of Great Britain. Auditing the treatment of patients with a specific disease state, such as asthma, depression or hypertension. London: The Society, 1998.
- Royal Pharmaceutical Society of Great Britain. Responding to symptoms audit. London: The Society, 1998.