INTRODUCTION
Headache is the commonest symptom reported in the general population, affecting more than 90% of people at some point in their lives.1 Although most self-manage headaches, around 4% of adults consult their GP for headache per year.2 The majority (94%) of consulters meet criteria for migraine, but only a quarter are so diagnosed by GPs.3 Most (97%) headaches are managed in primary care, with about 2% referred to a neurologist.2 This group includes some patients with ‘red flags’ suggesting serious pathology, alongside those with migraine, medically unexplained symptoms (MUS), chronic migraine (CM; ≥15 days a month), and medication overuse headache (MOH; ≥15 days analgesics a month; ≥10 days triptans/opioids a month). Those referred do not differ in terms of pain severity from those not referred.2 Headache accounts for 20–33% of new neurology appointments, and is the commonest reason for referral.4 However, a frequent reason GPs refer to neurology is for neuroimaging, pressured by patients anxious about underlying pathology, as well as because of their own concern about missing something serious.5 Direct GP access to neuroimaging is in principle available in the UK,6 and has been shown to reduce specialist referral,4 but GP uptake of diagnostic services generally has been slow.7 One reason may be GPs’ lack of confidence in diagnosing and managing headache. This paper will therefore discuss evidence to guide primary care management, which will differ depending on patient subgroups. Presently, it is difficult to quantify the proportion each subgroup represents of the headache population in primary care. Nevertheless, outlining appropriate management for each subgroup may reduce unnecessary neurology referrals, promote better care for all, and identify questions requiring future research.

DIFFERENT PATHWAYS FOR DIFFERENT PATIENT SUBGROUPS
Patients with ‘red flags’
Approximately 0.06% of the headache population presenting in primary care will have a significant pathology, such as a brain tumour or subarachnoid haemorrhage.8 Such individuals usually present with clinical ‘red flags’, which include sudden-onset headache, neurological or cognitive deficits, or seizures. For this subgroup, referral is indicated.4

Headache symptom worry
Some patients worry about a serious cause for their headaches.2 Personal experience of a relative or friend having consulted with common symptoms only to receive a diagnosis of a serious illness may increase this worry. Doing an internet search of headache symptoms may also result in ‘query escalation’. Query escalation has been found to trigger worry in both health-anxious and non-health-anxious groups.8 Patients with clinical migraine or tension-type headache can be safely managed in primary care. Those who do not meet criteria for scanning can be reassured in primary care. Those who do not meet criteria for scanning can be reassured in primary care. If a scan is required, studies suggest that most (1–88%) of those scanned via direct access do not request a follow-up consultation with a specialist.4,9,10

Psychological comorbidity
More severe than worry, anxiety and depression symptoms are associated with a history of migraine, making mental health an important component of headache management.11 Psychological comorbidity may contribute to migraines becoming chronic, and is strongly associated with the development of more severe headache disorders.11 Mental health problems are often difficult to identify and diagnose when patients present with somatic symptoms, and doctors may be less willing to make the diagnosis when access to treatment is difficult. With patient and GP direct-access to referral for cognitive behavioural therapy (CBT) in the UK, mental health services are accessible, and might be used more. Evidence, largely from the US, indicates that CBT is helpful for migraine alone.12 This makes it easier to suggest it, even when patients initially have difficulty relating their life-stresses to their migraine.

Medically unexplained symptoms
In some patients, headaches may present the somatisation of chronic psychological problems. Doctors find their management challenging, with frustration for clinicians and patients. If underlying psychological issues are not addressed, patients may consult their GP with the same or another physical complaint, and get more investigations and referrals. Reattribution training may benefit this subgroup. This enables GPs to explain how symptoms may be linked to psychosocial or lifestyle factors, without undermining the legitimacy of physical symptoms. It could help patients with MUS be more receptive to psychological therapy.13

Chronic migraine
Chronic migraine (migraine frequency ≥15 days a month) is challenging for neurologists and GPs. Anxiety and depression symptoms are commoner among patients suffering with CM than among those with less frequent episodes.11 Without psychological therapy, reassurance about physical symptoms does not prevent highly anxious patients from recurrent worry in the long run.16 Psychological interventions, such as relaxation training and CBT, are effective at reducing anxiety and depression, but most evidence has been derived from fee-paying healthcare systems.12 A pilot UK trial of minimal-contact CBT and relaxation intervention suggested that relaxation was easier to learn and continue practising.15 More research is needed in contexts where health care is funded for all.

Medication overuse headache
CM is frequently compounded by analgesia overuse. The pathogenesis of MOH is
unclear; recent findings point to chronic exposure leading to altered pathways for pain-related neurotransmitters, such as serotonin and endocannabinoids.10 These alterations, alongside chronic excitation of trigeminal neurones, may increase pain sensitivity. Anxiety and depression also appear to be factors in the evolution from migraine to MOH.11 Ceasing overused analgesics and starting preventive medication is recommended, and greater research into psychological intervention is a priority.12 Referral to a multidisciplinary team, as can be found in pain rather than neurology clinics, may be better in severe cases for weaning off analgesics and providing psychological support. Evaluation of the effectiveness of a step-up approach is necessary in order to commission evidence-based care.

The shifting role of GPs

In the UK, the GP’s role is shifting from gatekeeper to facilitator of care. Prior to direct-access imaging, GPs’ capacity to investigate and manage headache was limited. But GPs now have the opportunity to manage more patients, provided the required knowledge, training, and time is made available. This places more demands on GPs, particularly with the constraints of a 10-minute consultation. ‘Neurophobia’, defined as a lack of confidence in managing clinical neurology, is reported by GPs,13 and this may act as a barrier to the uptake of direct-access scanning and more headache management. Another barrier may also result from radiology reports being inconsistent in structure. In a recent study of direct-access MRI, reports were modified to enhance consistent categorisation of results and appropriate follow-up.14 This deserves replication.

More training for GPs has been identified as a mediator of better management. GPs can already train to become a GP with a special interest in headaches (GPwSIs).15 Part of this education includes when to scan. One study found that, over 3 months, GPwSIs scanned patients less frequently for headache than neurologists typically would.16 Future research might evaluate demand and satisfaction with direct-access scanning among both GPs and patients, as well as cost-effective implementation of psycho-educational approaches to headache self-management.

CONCLUSIONS

We propose the identification of subgroups of patients with headache who may require different management. Patients with complex conditions, particularly psychiatric comorbidity, chronic migraine, and/or medication overuse, require a combination of pharmacological and psychological interventions, accessible in primary care. An educational intervention delivered by GPwSIs to other GPs might promote judicious uptake and use of scanning by GPs, and improve their confidence in providing holistic care. Both of these remain to be evaluated by health-services research.

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REFERENCES