# HEADACHE

## IN PRIMARY CARE

### Case Study Feedback

Dear Dr

This quiz represents two challenging aspects of primary care. Headache is a bread and butter presentation, but is often challenging because of the dangers of missing serious pathology and the importance of managing the patient's fears and expectations. Parkinson's disease, on the other hand, is challenging because many GPs do not have a lot of patients with this condition and the pharmacological interventions are complex with frequent adverse effects.

We hope you find comparing your responses with those of your peers useful. Here are some points you might like to reflect upon.

When aura is atypical or prolonged or occurs for the first time in a woman on the combined oral contraceptive pill, this may be a signal that this is not a simple migraine headache. The presence of underlying pathology needs to be considered.

Simple analgesics, such as aspirin, ibuprofen or paracetamol, are best given before the headache starts. This is when they stand the best chance of aborting or reducing the severity of the headache.

Administration of sumatriptan is best delayed until early in the headache or the onset of hypersensitivity, such as photophobia, phonophobia or allodynia. Administration during a migraine aura is not as effective.

Rebound headache is a real problem with sumatriptan. The headache recurs within 48 hours in 20-50% of the people who initially respond.

People with medication overuse headache often have misconceptions which put them at increased risk. They need to understand that it is common with simple analgesics that they can buy over the counter. Stopping the medication to ease the headache does not mean they can never take this medication again. They can re-introduce it in a more appropriate way after two months.

Promethazine is related to the older psychotics and adverse effects include extra-pyramidal symptoms. This can be bought over the counter as Phenergan for the management of motion sickness.

It is worth considering delaying the use of levodopa when a young person presents with mild symptoms of Parkinson's disease. This will help delay the onset of adverse effects to levodopa. These effects become more prevalent the longer the patient is on this medication.

Thanks for responding to our quiz. If there are any points that you would like us to discuss further, feel free to contact

***editor@bpac.org.nz***

Have a good week.

The bpac[nz] team

bpac nz
better medicine

**1. Which feature(s) are considered red flag(s) when someone presents with headache?**

| You | Your Peers | |
|---|---|---|
| | 88% | Aura lasting for over one hour |
| | 92% | Aura occurring for the first time in woman on combined oral contraceptive |
| | 7% | Down going plantar response |
| | 9% | Hypersensitivity to touch on the upper arm |
| | 99% | Over 50 years at onset of new headache |

It is important to check for red flags (alarm signals) when a patient presents with migraine. Most respondents correctly identified the red flags in the question, although one in ten were not aware of the possible importance of prolonged aura or new onset of aura in a woman on the combined aural contraceptive pill.

Cutaneous hypersensitivity (allodynia) is an aspect of the general hypersensitivity, which includes photophobia and phonophobia, that accompanies the headache phase of migraine.

A down going plantar response is normal. The panel commented that you need to check the plantars if you are going to find an abnormality there.

**2. Which statement(s) about analgesia use for acute migraine are true?**

| You | Your Peers | |
|---|---|---|
| | 87% | Analgesics are most effective when taken before the headache starts |
| | 13% | Codeine is best reserved for severe recurrent headache |
| | 3% | Delayed release preparations of NSAIDs are most suitable |
| | 4% | Metoclopramide is only effective when there is nausea or vomiting |
| | 2% | Paracetamol is more effective than NSAIDs |

Again most respondents recognised that analgesics are most effective when given before the onset of headache.

13% of respondents would reserve codeine for severe recurrent headache. The panel thought this question was poorly worded and could cause confusion. Codeine is best avoided in migraine if at all possible as the potential for habituation, addiction and medication overuse headache generally outweighs the benefits over other analgesics.

Approximately 10% of the population may respond poorly to codeine analgesia as they are poor metabolisers of codeine and cannot convert it to morphine, which may be responsible for most of its analgesic effect.

**3. Which statement(s) about the use of sumatriptan for acute migraine are true?**

| You | Your Peers | |
|---|---|---|
| | 2% | Contraindicated for someone with Gilbert's syndrome |
| | 95% | Contraindicated for someone with ischaemic heart disease |
| | 11% | If the first dose is ineffective, a second dose is often effective |
| | 8% | It is most effective given during the aura phase |
| | 77% | Use is often associated with rebound of the headache |

Most respondents recognised ischaemic heart disease as a contraindication for sumatriptan. The cardiovascular risk of triptans is generally very low but past history or a strong age related family history of ischaemic heart disease or stroke are contraindications to their use.

Sumatriptan, like all triptans, is associated with return of symptoms within 48 hours in 20-50% of patients. This is a difficult situation as a second dose is likely to be effective but recurrent use can lead to medication overuse headache.

A second dose of sumatriptan is not likely to be effective when the first dose did not relieve the headache.

The best time to give sumatriptan is early in the headache phase.

*GP Panel decision*

### 4. *Which medication(s) have good evidence for effectiveness in migraine prophylaxis?*

| You | Your Peers | |
|---|---|---|
| | 76% | Amitriptyline |
| | 2% | Clonidine |
| | 1% | Fluoxetine |
| | 4% | Pizotifen |
| | 99% | Propranolol |

The evidence for efficacy of migraine prophylactics is good for beta-blockers and valproate and adequate for amitriptylline.

### 5. *Which statement(s) about medication overuse headache are true?*

| You | Your Peers | |
|---|---|---|
| | 92% | Abrupt withdrawal is more successful than gradual withdrawal |
| | 10% | People with medication overuse headache must stay off the offending medication permanently |
| | 15% | Recovery from headache usually occurs in less than 10 days |
| | 7% | Simple analgesics such as paracetamol or NSAIDs are unlikely to be responsible for medication overuse headache |
| | 5% | Taking high doses of analgesic once per week puts people at particularly high risk |

Medication overuse headache is being recognised more often in practice and needs careful management.

Abrupt withdrawal is more effective than gradual withdrawal and the time to recovery depends on what medication the patient was taking. Paracetamol and NSAIDs are often involved.

Patients do not need to stay off the offending medication permanently and it can be re-introduced in about two months but taken for no more than two days per week.

### 6. *Which one of the following is not a usual non-motor feature of Parkinson's disease (PD)?*

| You | Your Peers | |
|---|---|---|
| | 81% | Blurred vision |
| | 2% | Dysphagia |
| | 2% | Orthostatic hypotension |
| | 4% | Sleep disturbance |
| | 9% | Urinary urgency |

Non-motor features such as orthostatic hypotension, sleep disturbance, dysphagia, urinary urgency, depression and psychoses present significant management challenges in people with PD especially as the disease progresses.

Blurred vision is not a usual non-motor feature of PD but can occur as a side effect of anticholinergic drugs used to treat tremor associated with PD. Some other non-motor features (for example psychoses, constipation) can also be caused or aggravated by the drugs used to treat PD.

### 7. *Which one of the following is not usually associated with drug-induced Parkinsonism?*

| You | Your Peers | |
|---|---|---|
| | 50% | ACE inhibitors |
| | 36% | $Ca^{2+}$ channel blockers |
| | 1% | Metoclopramide |
| | 7% | Promethazine (Phenergan) |
| | 4% | Risperidone |

GPs erred on the side of caution with this question and rightly suspect adverse effects from any drug the patient is taking when a new symptom presents.

A range of drugs can cause Parkinson's like symptoms in a person without the disease or aggravate and worsen symptoms in a person with a known diagnosis of PD.

ACE inhibitors are not known to cause extrapyramidal effects.

There are some reports in the literature of features such as dystonia, akathisia and parkinsonism with some of the calcium channel blockers. However, these effects appear to be very rare and the use of calcium channel blockers is not contraindicated in people with PD.

The extrapyramidal effects of metoclopramide are well known and domperidone (which does not cross the blood brain barrier) is the recommended alternative in a person with PD. Promethazine (phenergan) is a phenothiazine derivative (related to chlorpromazine) and can occasionally cause extrapyramidal effects. It is available over the counter without prescription in a number of forms.

With risperidone the likelihood of extrapyramidal effects increase with dose.

***8. Which one statement about drug therapy of Parkinson's disease is true?***

| You | Your Peers | |
|---|---|---|
| | 6% | Dopamine agonists (e.g ropinirole, bromocriptine) are superior to levodopa in controlling motor symptoms of Parkinson's disease. |
| | <1% | Entacapone (Comtan) is a first line agent in early Parkinson's disease |
| | 2% | Levodopa does not usually cause motor complications |
| | 91% | Levodopa is the best agent for rigidity and bradykinesia |

All members of the panel identified that levodopa is the best agent for rigidity and bradykinesia but its use is associated with, and ultimately limited by, motor complications.

The COMT inhibitors such entacapone are not first line agents and have to be used in conjunction with levodopa to help manage motor fluctuations. Levodopa is generally considered to be the first choice agent in controlling the motor symptoms of PD but dopamine agonists are also useful as first line therapy.

***9. A 50 year old male is newly diagnosed with Parkinson's disease. At the moment his symptoms are mild. What would be the most appropriate first line treatment?***

| You | Your Peers | |
|---|---|---|
| | 1% | Entacapone (Comtan) a COMT-inhbitor |
| | 4% | Levodopa/benserazide (Madopar) |
| | 22% | Levodopa/carbidopa (Sinemet) |
| | 70% | Ropinirole (Requip) |

Ropinirole would probably be the best option for this patient.

He has presented at a relatively young age with mild symptoms and because the long term use of levodopa is limited by motor complications, a dopamine agonist may be preferred. The rationale is that this may delay the onset of motor complications of levodopa use but give the option of adding in levodopa at a later stage of the disease.

These issues are quite controversial and the approach to drug selection is often driven by individual specialist opinion and experience.

***10. Mrs LB is 81 and has late stage Parkinson's disease. She develops psychoses and hallucinations. As well as stopping potential causative agents, which of the following low dose drug treatments would be most suitable?***

| You | Your Peers | |
|---|---|---|
| | 3% | Benzodiazepine |
| | 3% | Benztropine |
| | 2% | Clozapine |
| | 4% | Haloperidol |
| | 88% | Quetiapine |

Psychoses and hallucinations are troublesome non-motor features of PD, especially in the later stages. Most of the anti Parkinson's drugs can cause CNS effects and should be viewed as potential causes.

Quetiapine was selected as the preferred treatment option as it is an atypical antipsychotic less likely to cause extrapyramidal effects than haloperidol, especially at low doses. Clozapine is also effective but requires hematological monitoring. A benzodiazepine would sedate the person but not deal with the underlying psychosis.

Benztropine is an anticholinergic agent and is a potential cause of CNS effects similar to the toxicity seen with datura or deadly nightshade.