Canterbury
District Health Board
Te Poari Hauora ō Waitaha

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25 March 2022

9(2)(a) [redacted]

RE Official Information Act request CDHB 10831

I refer to your email dated 14 March 2022 requesting the following information under the Official Information Act from Canterbury DHB. Specifically:

1. **Does your DHB hospital offer a neurology service for patients with chronic migraine i.e a funded clinic whereby patients with chronic migraine can be reviewed by a neurologist?**

No, Canterbury DHB does not offer a neurology service for patients with chronic migraines.

2. **If yes:**
    a. **In the 2019/20 and 2020/21 year, how many patients were seen in each year?**
    b. **is there a waiting list for an appointment?**
        i. **And if so, how long on average do patients wait for an appointment?**

Not applicable

3. **Is there a local clinical treatment guideline for chronic migraine in the DHB and if so, please can this be provided?**

Yes. Please refer to **Appendix 1** for information provided for GPs and Clinicians on Community Health Pathways[1].

[1]*HealthPathways is designed and written for use during a clinical consultation. Each pathway provides clear and concise guidance for assessing and managing a patient with a particular symptom or condition. Pathways also include information about making requests to services in the local health system.*
Content is developed collaboratively by general practitioners, hospital clinicians, and a wide range of other health professionals. Each pathway is evidence-informed, but also reflects local reality, and aims to preserve clinical autonomy and patient choice. HealthPathways serves to reduce unwarranted variation and accelerate evidence into practice. ***Note:*** *This information is not publicly available.*

Information which is publicly available can be found on the HealthInfo website.
www.healthinfo.org.nz;

4. **If the DHB does not provide a chronic migraine service, is there a reason why this is not available?**

Most management of chronic migraine is handled through written advice provided to GPs (Virtual Clinic letter), or the GP may be referred to the documented Headache guideline on Health Pathways[1].

I trust that this satisfies your interest in this matter.

Please note that this response, or an edited version of this response, may be published on the Canterbury DHB website after your receipt of this response.

Yours sincerely

Ralph La Salle
Senior Manager, OIAs
Canterbury DHB & West Coast DHB

APPENDIX 1

Headaches in Adults

For children, see Headaches in Children.

COVID-19 note

Be aware of thrombosis with thrombocytopenia (TTS) syndrome, also known as vaccine-induced thrombosis with thrombocytopenia (VITT) syndrome, a rare condition occurring 4 to 42 days after vaccination with AstraZeneca or Johnson & Johnson's Janssen viral vector COVID-19 vaccines. Most thrombotic conditions are not TTS. Heparin and Enoxaparin are contraindicated in TTS.

See:

- COVID-19 Vaccination
- THANZ Multidisciplinary VITT Guideline for Doctors.

Last updated: 30 November 2021

Red Flags

- Sudden onset severe headache
- Abnormal neurological signs
- Meningism or fever
- Older than 50 years with new or different headache

Background

About headaches in adults

About headaches in adults

Most headaches in adults are benign primary headaches.

The most common types of benign primary headaches are:

- tension-type.
- migraine.
- medication overuse.
- cluster.

Benign secondary causes of headache include:

- fever due to systemic illness.

- sinus, ear, tooth, jaw, neck, or eye pathology.

Serious underlying pathology is found in less than 1% of outpatient referrals for headache, but up to 15% of emergency department presentations.

Assessment

Practice point

A detailed history and basic neurological examination is usually enough to differentiate between benign and serious causes. Few patients require imaging to exclude a serious cause.

1. Take a detailed history. Look for:
    - concerning features and risk factors for a serious secondary cause.
    - reassuring features:
        - Recurrent episodic headache with long history at presentation
        - No neurological deficit
        - Transient neurological symptoms, and occasionally signs, are common features of migraines.
2. Assess for features of primary headaches:
    - Tension-type headache

      Tension-type headache features

        - Presents as either:
            - episodic – occurs less than 15 days per month, or
            - chronic – by definition, occurs 15 days or more per month.
        - Typically bilateral, frontal or frontal-occipital.
        - May radiate to the neck, with subjective neck stiffness.
        - Sensation of pressure inside the head, or of a band around the head.
        - May worsen as the day goes on.
        - May be exacerbated by stress or rushing.
        - Patient remains active.
        - Episodic pattern may progress to "all day, every day" pattern.
        - Potential to progress to medication overuse headache.
        - Neurological examination is normal.
    - Migraine

Migraine history

General:

- Onset often in the teens, but can be at any age
- Often family history
- Episodic
- Typically lasts several hours (2 to 72)
- May wake the patient at night
- Pattern often changes during the patient's life

Features of migraine headache:

- Severe unilateral or bilateral headache
- Often centred behind the eye
- Usually throbbing, but may be constant
- Nausea and vomiting
- Photophobia and phonophobia
- Patient prefers to lie in the dark
- Exacerbated by movement, e.g. minor exercise, bending, coughing
- Difficulty finding words, or confusion
- With or without aura

Features of migraine aura:

- Usually precedes headache, may occur without headache
- Duration: 1 to 60 minutes
- Usually visual: bright, shimmering scotoma or zigzag pattern, can include visual loss

- Cluster headache

Cluster headache features

- Affects men aged 20 to 40 years six times more often than women
- May be missed, as uncommon in general practice
- Typically occurs in bouts of 6 to 12 weeks, every one to two years
- Often occurs at the same time of day and year, separated by periods of freedom from headache
- Most patients will develop longer remission intervals with increasing age

Pain characteristics (seen in at least 5 attacks)

- Severe or very severe unilateral orbital, supraorbital, or temporal pain lasting 15 minutes to 3 hours if untreated
- Occurs 1 to 8 times daily
- Accompanying features:
    - Ipsilateral conjunctival injection and/or lacrimation
    - Nasal congestion and/or rhinorrhoea
    - Localised forehead and facial sweating
    - Constricted pupil and/or ptosis, eyelid oedema
    - Restlessness

- Medication overuse headache

  Medication overuse headache features

  - Common and under-diagnosed
  - Can be caused by all medications used for immediate headache relief
  - Triptans are becoming a significant cause
  - Consider as a cause in all patients with chronic headaches
  - Develops in patients with a pre-existing primary headache disorder, usually migraine or tension-type headache

  Features

  - Symptoms include either worsening of headache associated with frequent medication use, or worsening of headache with medication reduction.
  - Headache is present ≥ 15 days per month.
  - Regular headache medication use is for ≥ 3 months, at least 10 to 15 days per month.
  - Other features may include:
    - worse on waking.
    - aggravated by physical exercise.
    - nausea and other gastrointestinal symptoms.
    - restlessness, anxiety, irritability, and poor concentration.

3. If chronic headaches, assess for depression.
4. Examination.

   Examination

- Blood pressure
- Temperature
- Tandem gait – whether the patient can walk heel-to-toe
- Symmetric reflexes and down-going plantar responses
- Visual acuity and visual fields
- Eye movements
- Fundoscopy – looking for papilloedema

5. Investigations:
    - If presentation is typical for a primary headache disorder without any concerning features and risk factors for a serious secondary cause, investigations are not required.
    - If concerning features or risk factors for serious secondary cause, consider CT head.

      Headache indications for CT head

      - Headache made worse by coughing, sneezing, bending, exertion but not in a patient with typical migraine headaches.
      - Previous malignancy when secondaries are suspected.
      - Speech, limb or facial weakness if not arranging acute assessment.

      The most likely cancers to metastasise to the brain are lung, breast, and melanoma.

    - If older than 50 years with new headaches, check CRP and ESR, and consider giant cell arteritis.

      CRP and ESR

      Either marker or both can be raised in temporal arteritis. Because of the significant potential for morbidity, request both in the initial presentation.

      - Any elevation of CRP or ESR suggests temporal arteritis in a patient with signs and symptoms.
      - A small number of patients will have levels within normal ranges on at least one of the tests, and in 5 to 10% of patients with GCA, both CRP and ESR will be normal.
      - If both CRP and ESR are normal, the likelihood of temporal arteritis is reduced, but cannot be ruled out.
      - If patients present with sudden blindness without early symptoms, CRP and ESR may not be elevated.

6. A headache log can be useful to assess self-medication and aid diagnosis.

Management

1. If any red flags, seek acute phone advice or acute assessment from the appropriate medical specialty, depending on clinical concern.
2. If any suspected serious secondary cause, manage appropriately. Request acute ophthalmology assessment for eye symptoms or signs.

Serious secondary cause

Indications of a serious secondary cause of headaches:

Features	Consider
Sudden onset: • thunderclap headache • like a blow to the head • peak pain intensity within minutes	Subarachnoid haemorrhage Cerebral artery dissection Cerebral venous sinus thrombosis Acute hypertensive crisis Reversible cerebral vasoconstriction syndrome Pituitary apoplexy
Made markedly worse by coughing, sneezing, bending, exertion	Raised intracranial pressure, e.g. tumour or abscess
Head injury in the last month	Subdural haemorrhage
Older than 50 years, especially if no headaches in the past	Giant cell arteritis (GCA)
Fever, drowsy, neck stiffness, rash, recent infections	Meningitis or encephalitis
Speech, limb or facial weakness	Stroke or tumour
Eye symptoms, e.g. monocular pain, red eye, visual disturbance, nausea, papilloedema	Acute angle-closure glaucoma Idiopathic intracranial hypertension

3. For all primary headaches:
    - avoid treatment with opioids, including codeine, due to the risk of medication overuse headaches.
    - address any patient anxiety about serious pathology. Provide reassurance and education.

4. Manage patients with primary headaches in general practice:

- Tension-type headache management

  If headaches are episodic:

1. Explain and discuss diagnosis, and reassure the patient.
2. Manage any stress, anxiety, or depression.
3. Provide advice on exercise, posture, cognitive behavioural therapy (CBT) and physiotherapy.
4. Consider medication (e.g. paracetamol, NSAIDs, or aspirin), but limit to 2 to 3 days or less per week due to the risk of medication overuse headache.

   If headaches are chronic:

5. Explain, reassure, and manage any stress, anxiety, or depression.
6. Consider medication: [1]
   - Tricyclics:
     - Amitriptyline is first choice. Start with a low dose (5 to 10 mg at night) and increase slowly to 30 mg over 4 to 6 weeks.
     - Nortriptyline 10 mg at night, increasing to 30 mg.
   - Mirtazapine 15 to 30 mg at night. Titrate slowly to avoid adverse effects, including postural hypotension.
   - Topiramate start at 12.5 mg per day, titrated up to 25 to 50 mg twice a day.
   - Beta blockers – propranolol hydroxide 40 to 80 mg per day or metoprolol succinate (or metoprolol tartrate) 100 to 300 mg per day.
   - Selective serotonin reuptake inhibitors (SSRIs) are no more effective than placebo.
7. Monitor for medication overuse headache – common in those using analgesics regularly.
8. Consider treatment via osteopath and chiropractor, cognitive behavioural therapy, relaxation therapy.

   Tension-type headache is not currently seen in outpatients at Christchurch Hospital.

- Migraine management

1. Identify any known triggers, although most patients have no obvious triggers.

   Known triggers

   Avoiding known triggers can help manage migraines, but may be difficult. It is often helpful for patients to understand triggers.

Common triggers include:

- dietary triggers, e.g. chocolate, cheese, alcohol, caffeine.
- strenuous physical activity (including sexual).
- stress or relaxation.
- bright or flickering light.
- menstruation.

2. Acute treatment is most effective if taken at the onset of the headache. Consider:
    - Analgesic with or without antiemetic.[2] Avoid opiates due to risk of dependency. Opioids are no more effective and carry a risk of medication overuse headache.

      Analgesic and antiemetic

      If not vomiting:

      - Use short-acting NSAID, (e.g., ibuprofen 400 mg orally immediately (higher dose if tolerated) + paracetamol + antiemetic) at onset of migraine.
      - "Hit hard" at the onset to avoid prolonged or chronic use of analgesics and risk of medication overuse headache.
    - Specific anti-migraine medications if the above does not adequately treat the attacks.

      Specific anti-migraine medications

      Triptans:

      - Ineffective during aura and most effective when pain is mild or at onset of hypersensitivity.
      - 20 to 50% of patients who initially respond will have a rebound headache within 48 hours.
      - Can be combined with metoclopramide and NSAIDs.
      - Repeat after 2 hours if headache recurs, but not if initial dose was ineffective.
      - If used more than twice a week, there is increasing risk of medication overuse headache.
      - Sumatriptan, 50 mg to 100 mg orally at onset, up to maximum 300 mg per day. Can be given 6 mg subcutaneously, and may be repeated once after at least 1 hour if headache recurs.
      - Rizatriptan 10 mg orally (disintegrating tablet) at onset, up to a maximum of 30 mg per 24 hours. If taking propranolol, use a reduced dose of 5 mg and a maximum of 15 mg in 24 hours.

Ergotamine is generally avoided due to side effects and rebound headaches.

3. If significant vomiting and dehydration, rehydrate with intravenous fluids and antiemetics. Consider admission to:
    - the Observation Unit (24 Hour Surgery) for community patients.
    - the ED Observation Ward, for Emergency Department patients.
4. If acute treatment above fails, consider chlorpromazine infusion.

Chlorpromazine infusion

Intravenous chlorpromazine (unapproved use) may be an effective treatment for migraine: [3]

Approved medicines used for unapproved indications

An unapproved indication includes an indication, dose, or route of administration other than for which a particular medicine is approved (as stated on the Medsafe – Unapproved Medicines page).

Obligations under the Code of Health and Disability Services Consumers' Rights

The patient has the right to treatment of an ethical and professional standard, and the doctor must ensure treatment meets this standard. The patient also has the right to be fully informed, and the right to make an informed choice.

- The patient should be advised if an unapproved medicine is to be used or if an approved medicine is to be used for an unapproved indication/dose/route
- The patient should be advised about the standard of evidence for the use of the medicine, any expected risks, side-effects, benefits, and costs
- Written consent is required for experimental use of a medicine – Considered experimental if:
    - there is minimal evidence to support this use.
    - the evidence of the efficacy or safety of the medicine used in this manner is equivocal.
    - the use is part of a clinical trial.

Although notification of the use of an approved medicine for an unapproved indication is not required, use of medicines for unapproved indications is at the prescriber's risk.

- It is:
    - used in the emergency department and in the observation unit when patients have failed to respond to other treatments.

- useful if the patient has had a prolonged headache associated with vomiting and dehydration.
- more effective than pethidine or ergotamine and equally as effective as sumatriptan.

- Side-effects include drowsiness and mild postural hypotension.
- Avoid in Parkinson's disease and in combination with other dopamine agonists e.g. metoclopramide and haloperidol.

Chlorpromazine protocol

- Add chlorpromazine 12.5 mg to a 500 mL or 1 litre bag of sodium chloride 0.9% and infuse over 60 minutes via rate-controlled pump. It can be repeated if needed.
- If needed, repeat 30 minutes after the end of infusion to give a total of two doses of 12.5 mg of chlorpromazine.

5. If headache recurs within the same episode, despite initial response, consider relapse treatment options.
6. Consider migraine prophylaxis.

Migraine prophylaxis

- Consider for recurrent migraine, i.e. 2 or more disabling episodes per month.
- Titrate slowly and trial each medication for 6 to 8 weeks.
- Choice of prophylaxis is individually determined.
- Consider gradual withdrawal after 6 to 12 months of effective prophylaxis.
- Ensure medication is available for acute attacks.

Medication

Consider the following medications as prophylaxis:

- Beta blockers
    - Propranolol – Start on low dose, e.g. 10 to 40 mg twice a day and slowly increase. Can use long-acting dose daily. Avoid if on rizatriptan.
    - Nadolol: 40 to 80 mg once a day
    - Useful if co-morbid anxiety
- Candesartan: 2 to 16 mg a day (unapproved use) but evidence in trials.[4]

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- Tricyclics
    - Amitriptyline – up to 30 to 50 mg at night
    - Useful if co-morbid depression, tension-type headache or sleep disturbance.
- Topiramate: 25 to 50 mg twice a day. Consider once daily dosing as an alternative, e.g. 50 to 100 mg at night.
- Sodium valproate
    - In women of childbearing age (from menarche to menopause), use valproate only with specialist recommendation and where there is no suitable alternative, due to the teratogenicity and association with developmental delay.[5] Prescribe effective contraception, if required, to minimise the chance of pregnancy.
    - 400 to 1000 mg daily – Start low, increase gradually.
- Pizotifen
    - Start at 0.5 mg once a day and increase to 1.5 mg.
    - Its use is limited due to the side-effects of drowsiness and weight gain.

Other options:

- Verapamil – some evidence for its effectiveness

- SSRIs – evidence is inconclusive
- Acupuncture – often used for migraine. Trials have shown reduction in the severity and frequency of episodes.

7. Specific treatment for particular migraine types:
    - Menstrual migraine

      Menstrual migraine

      First try the acute and prophylactic treatments above, then consider:

      - Naproxen 500 mg twice daily, given 6 days before until 7 days after menstruation, or
      - Peri-menstrual oestrogen for prophylaxis:
        - For women who have migraine without aura and who have other indications and no contraindications for using a combined oral contraceptive (COC), give continuous administration of an oestrogen-progesterone oral contraceptive. By skipping the placebo pills, patients can avoid the monthly abrupt decline in oestrogen which may trigger migraine.
        - For women with a natural cycle, who do not need or wish to use a COC, either:
          - Apply a 100 microgram oestrogen patch about 3 days before the anticipated onset of bleeding, and leave in place for 7 days, or
          - Give 2 mg estradiol valerate daily for 7 days, again starting 3 days before the period.

      If these methods of prophylaxis are ineffective, consider advice or assessment by an endocrine gynaecology specialist.

    - In pregnancy and breastfeeding

      Migraine in pregnancy and breastfeeding

      - Paracetamol can be used throughout pregnancy and breastfeeding.
      - NSAIDs:
        - Avoid in the third trimester to avoid fetal renal damage and patent ductus.
        - Short acting e.g. ibuprofen can be used in the first and second trimester.
      - Metoclopramide is unlikely to cause harm through pregnancy and breastfeeding.
      - Do not use caffeine + ergotamine in pregnancy and breastfeeding

- The evidence for the use of triptans in pregnancy is limited. Triptans can be used in breastfeeding.
- Propranolol – beta blocker with best evidence of safety for migraine during pregnancy.
- Amitriptyline – lowest effective dose may be used.

For more information, see Medicine Information Requests or a community pharmacy.

8. Some patients will obtain benefit from osteopathic or chiropractic management.

- Cluster headache management

Acute episode

- Sumatriptan subcutaneous injection 6 mg has been shown to be effective.
- Consider oral triptans (e.g. sumatriptan orally 50 mg to 100 mg), but there are no large studies to support their use.
- Oxygen 100% for ten to twenty minutes helps some people.
- Analgesics and ergotamine are not effective.
- Avoid alcohol completely during cluster episodes.

Follow nurse standing order for oxygen.

Preventive treatment

- Consider:
  - verapamil hydrochloride 120 mg twice daily, increasing to three times per day after two days, then titrate up to 720 mg per day according to effect, or
  - prednisone 30 mg per day.
- Start either early, and continue for 14 days after resolved.

- Medication overuse headache management

Request

- If any red flags, seek acute phone advice or acute assessment from the appropriate medical specialty, depending on clinical concern.
- If any suspected serious secondary cause, request acute ophthalmology assessment for eye symptoms or signs.

Serious secondary cause

Indications of a serious secondary cause of headaches:

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Head injury in the last month	Subdural haemorrhage
Older than 50 years, especially if no headaches in the past	Giant cell arteritis (GCA)
Fever, drowsy, neck stiffness, rash, recent infections	Meningitis or encephalitis
Speech, limb or facial weakness	Stroke or tumour
Eye symptoms, e.g. monocular pain, red eye, visual disturbance, nausea, papilloedema	Acute angle-closure glaucoma Idiopathic intracranial hypertension

- Request acute neurology assessment if:
  - migraines that do not respond to the above management.
  - migraine diagnosis is in doubt.
- If cluster headache episodes are not controlled by the above treatments, request non-acute neurology assessment.
- If prophylaxis for menstrual migraine is ineffective, consider endocrinology advice.