Clinical challenge

Using *AJGP* for your CPD

Each issue of the *Australian Journal of General Practice* (*AJGP*) focuses on a specific clinical or health topic. Many GPs find the entire issue of interest and relevance to their practice and others explore the issue more selectively.

Below you'll find various ways you can use *AJGP* as part of your CPD. If you want to use the entire issue for CPD, carefully and critically work your way through each Focus article, considering how you might adjust your practice in response to what you have learnt, then complete the Clinical challenge.

Your CPD will be automatically recorded for you

When you complete the *AJGP* Clinical challenge and/or Measuring Outcomes (MO) companion activity through *gplearning*, your CPD hours will be automatically recorded on myCPD Home within 12 hours.

Self-recorded reading

If you prefer to read and reflect on specific articles without completing the Clinical challenge, record this via quick log on myCPD Home. As guidance, each article in *AJGP* can be recorded for up to two CPD hours, split evenly between EA and RP CPD time.

Clinical challenge

The Clinical challenge consists of multiple-choice and short answer questions based on the Focus articles in this issue of *AJGP*. Complete the Clinical challenge to earn 10 CPD hours, split evenly between Educational Activities (EA) and Reviewing Performance (RP). This CPD allocation includes reading time for the Focus articles.

MO companion activity

The MO companion activity assists you to implement and evaluate changes in your practice in line with the guidance provided in a specific article in this issue of *AJGP*. Complete the companion activity to earn five MO hours.

Visit https://bit.ly/JulyCCMO and select the 'Register' button to find both the Clinical challenge and Measuring Outcomes companion activity.

Self-directed MO options

You can also do self-directed MO CPD related to this issue of *AJGP*.

Choose any topic area from within the issue and undertake a quality improvement activity. This can be done on your own, with a colleague, in a group, or perhaps with the assistance of our practice manager or PHN quality improvement team.

Consider discussing as a group your approach to supporting patients with probable Parkinson's disease and evaluate how your approach compares to the article by Singh et al. Explore how you overcome challenges in obtaining a timely diagnosis, initiating levodopa in your treatment plan, supporting patients and caregivers, and building support of a multidisciplinary care team.

A simple evaluation might be recorded for several MO hours, while a more comprehensive PDSA approach would provide at least 10 hours of MO CPD. Evaluating and implementing your strategy with five patients could provide at least 10 hours MO CPD.

Log in to myCPD Home (https://bit.ly/myCPDhome) for guides and templates to complete your self-directed quality improvement activities and record your MO hours.

AI declaration: The Editors advise that artificial intelligence (AI)-assisted technology was used in the writing and/or editing of the July 2025 *AJGP* Clinical challenge and accept full responsibility for all content.

These questions are based on the Focus articles in this issue. Please choose the single best answer for each question.

CASE 1

Jenny is an engineer, aged 55 years, who presents with a sudden onset of unilateral hearing loss in her left ear in the past 48 hours. She denies otalgia, fever or recent upper respiratory tract infection. There is no history to suggest barotrauma.

QUESTION 1

Otoscopic examination of both tympanic membranes is unremarkable. Which of the following is the most appropriate next step in confirming a diagnosis of sudden sensorineural hearing loss (SSNHL)?

- **A.** A trial of oral corticosteroids, with imaging and audiometry deferred until after treatment
- **B.** Immediate CT scan of the temporal bones to assess for structural abnormalities
- **C.** Observation for another 1–2 weeks to assess for spontaneous improvement before further investigations
- **D.** Routine blood tests, including full blood count and autoimmune markers, to identify underlying causes
- **E.** Weber and Rinne tests, using a 512 Hz tuning fork, followed by urgent pure-tone audiometry

QUESTION 2

Tuning fork tests reveal that the Weber test lateralises to the right ear. The Rinne test is positive bilaterally. Which of the following is the most appropriate initial management of sensorineural hearing loss (SSNHL)?

- **A.** Advise the patient that spontaneous recovery is common and schedule a review in one month with audiometry prior to review
- **B.** Order a CT scan of the temporal bones and an MRI of the internal acoustic meatus to assess for structural abnormalities before starting treatment
- **C.** Perform tympanometry to confirm the presence of a middle ear pathology before considering further interventions
- **D.** Prescribe a one-week course of oral antibiotics, such as amoxicillin, and arrange follow-up in two weeks
- **E.** Refer urgently to ENT and initiate high-dose oral corticosteroids immediately if there are no contraindications

CASE 2

Vivek is a retired consultant surgeon, aged 83 years, who presents with a two-week

history of binocular horizontal diplopia, headache, anorexia and jaw pain upon opening his mouth. Examination reveals a left lateral rectus palsy, a thready left temporal artery pulse and no other focal neurological deficits. Inflammatory markers are elevated.

QUESTION 3

Which of the following findings would most strongly differentiate sixth nerve palsy related to giant cell arteritis (GCA) from other potential causes of a sixth cranial nerve palsy?

- **A.** A 'halo sign' on temporal artery ultrasound in the absence of scalp tenderness
- **B.** Acute painful Horner's syndrome with a unilateral carotid bruit
- **C.** Fluctuating diplopia and fatigable ptosis with diurnal variation
- **D.** Presence of constitutional symptoms with asymmetric temporal artery pulses
- **E.** Progressive ophthalmoplegia with pupil-involving ptosis

QUESTION 4

What is the most appropriate immediate management step for Vivek?

- **A.** Commencement of immediate high-dose oral prednisolone (60 mg daily) with urgent ophthalmology referral
- **B.** Commencement of weekly oral methotrexate, as a first-line steroid-sparing agent to minimise long-term corticosteroid use, and urgent ophthalmology referral
- **C.** Immediate referral to hospital for initiation of intravenous methylprednisolone for 3–5 days, to be followed by oral prednisolone
- **D.** Referral to ophthalmology for an urgent temporal artery biopsy and await the histology results before initiating prednisolone treatment
- **E.** Urgent referral to ophthalmology and immediate initiation of low-dose oral prednisolone (15 mg daily)

CASE 3

Pavel, a retired teacher aged 75 years, presents to his general practitioner in rural Tasmania with a six-month history of progressive right-hand tremor, bradykinesia and mild rigidity. His symptoms are impacting his daily activities. He has no history of falls or cognitive impairment. He has been referred to a neurologist but the earliest available appointment is in eight months' time.

QUESTION 5

Drawing on the Focus article by Singh et al, in addition to regular daily exercise, what is the most appropriate next step in managing this patient's condition?

- **A.** Initiate a monoamine oxidase (MAO) B inhibitor, such as rasagiline, because Pavel's motor symptoms are currently mild
- **B.** Initiate levodopa only if Pavel develops significant motor disability, falls or cognitive impairment
- **C.** Prescribe a dopamine agonist, such as ropinirole or apomorphine, instead of levodopa to delay the onset of 'on/off' complications
- **D.** Start levodopa at a low dose and titrate gradually while monitoring for symptomatic improvement and side effects
- **E.** Wait for the specialist review before initiating treatment, as levodopa might mask the clinical features of Parkinson's disease

QUESTION 6

Pavel and his general practitioner decide to trial levodopa while awaiting specialist review. Which of the following is the best approach to initiating levodopa in the community?

- **A.** Prescribe levodopa 125 mg once daily and advise the patient to take it with a high-protein meal to improve its absorption
- **B.** Prescribe levodopa 125 mg twice daily, and stop it if the patient does not experience symptom improvement within 48–72 hours
- **C.** Prescribe 50 mg levodopa combined with 12.5 mg of benserazide once daily, and increase gradually to three times daily
- **D.** Start with levodopa 250 mg three times daily to achieve rapid symptom relief and improve Pavel's quality of life
- **E.** Use dopamine-blocking antiemetics such as metoclopramide to manage the nausea commonly associated with levodopa initiation

CASE 4

Hayami, aged 50 years, is an artist (their pronouns are they/them). They present with severe lower back pain radiating into their left leg and foot. They report increasing difficulty with left leg weakness, especially when climbing stairs.

QUESTION 7

Which of the following clinical features is most specific for cauda equina syndrome (CES) in a patient presenting with low back pain and radiculopathy?

- **A.** Bilaterally absent ankle jerks
- **B.** Constipation and overflow diarrhoea
- **C.** Reduced anal tone and faecal loading
- **D.** Sexual dysfunction and constipation
- **E.** Urinary retention and palpable urinary bladder

QUESTION 8

Upon examination, you note bilateral ankle weakness and diminished ankle jerks. The sensation in Hayami's saddle area is altered. You cannot palpate the urinary bladder. Which of the following is the most appropriate next step in management?

- **A.** Arrange an urgent CT scan of the lumbosacral spine and review Hayami with the results, advising them to re-present if their symptoms worsen
- **B.** Offer a trial of oral prednisolone 25 mg for seven days before reassessment, advising Hayami to re-present if their symptoms worsen
- **C.** Perform an assessment of anal tone, after obtaining consent and arranging for a chaperone to be present in the room
- **D.** Prescribe naproxen 500 mg bd and oxycodone 5 mg tds, refer for urgent physiotherapy and review Hayami in one week
- **E.** Refer to the emergency department for an immediate MRI to assess for potential cauda equina syndrome

CASE 5

Robyn, a medical student aged 22 years, presents with left leg weakness and difficulty walking.

QUESTION 9

Robyn's general practitioner (GP) tests the power of Robyn's left hip extension. There is initial resistance followed by a sudden loss of strength. When Robyn's GP applies resistance to Robyn's flexed right hip, the left hip extension weakness resolves. This finding is most consistent with which one of the following conditions?

A. Demyelinating disease
B. Functional weakness
C. Gluteus medius tendinopathy
D. Lower motor neuron lesion
E. Upper motor neuron lesion

QUESTION 10

Which of the following best describes the concept of 'functional overlay' in neurological disorders?

A. A situation in which psychological factors are the sole cause of neurological symptoms
B. The coexistence of functional neurological symptoms with another neurological condition
C. The presence of a secondary condition that mimics a primary neurological disorder
D. The process of excluding a primary neurological disorder due to functional symptoms
E. The process of excluding malingering and the deliberate fabrication of neurological symptoms

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These questions are based on the Focus articles in this issue. Please write a concise and focused response to each question.

CASE 1

Jenny is an engineer, aged 55 years, who presents with a sudden onset of unilateral hearing loss in her left ear in the past 48 hours. She denies otalgia, fever or recent upper respiratory tract infection. There is no history to suggest barotrauma.

QUESTION 1

List four important questions that should be included when taking a history from a patient who presents with sudden unilateral hearing loss.

QUESTION 2

Describe how the Weber and Rinne tuning fork tests can be used to distinguish between conductive and sensorineural hearing loss.

CASE 2

Vivek is a retired consultant surgeon, aged 83 years, who presents with a two-week history of binocular horizontal diplopia, headache, anorexia, and jaw pain upon opening his mouth. Examination reveals a left lateral rectus palsy, a thready left temporal artery pulse and no other focal neurological deficits. Inflammatory markers are elevated.

QUESTION 3

Explain:

A. why it is important to distinguish between monocular and binocular diplopia
B. how to distinguish between monocular and binocular diplopia.

QUESTION 4

Excluding giant cell arteritis (GCA), identify four other causes of a unilateral lateral rectus palsy in adults.

CASE 3

Pavel, a retired teacher aged 75 years, presents to his general practitioner in rural Tasmania with a six-month history of progressive right-hand tremor, bradykinesia and mild rigidity. His symptoms are impacting his daily activities. He has no history of falls or cognitive impairment. He has been referred to a neurologist but the earliest available appointment is in eight months' time.

QUESTION 5

Describe three key principles that underpin the recommendation by Singh et al to start a trial of levodopa in primary care when there is delayed access to a neurology specialist.

QUESTION 6

Pavel is unsure about your proposal to start low dose levodopa as he read online that levodopa treatment should be delayed as long as possible. Summarise the levodopa myths addressed in the Focus paper by Singh et al, and describe how you would explain this to Pavel.

CASE 4

Hayami, aged 50 years, is an artist (their pronouns are they/them). They present with severe lower back pain radiating into their left leg and foot. They report increasing difficulty with left leg weakness, especially when climbing stairs.

QUESTION 7

Your general practice registrar is reviewing Hayami and knocks on your door, asking for you to be a chaperone. The registrar is concerned about the absence of Hayami's ankle reflexes and wish to conduct an assessment of Hayami's anal tone.

Summarise the reasons why the primary care assessment of anal tone is not recommended in this setting, and recommend an alternative assessment that the registrar could undertake.

QUESTION 8

You are a general practitioner (GP) supervisor and you are asked to help develop some guidelines for general practice registrars to assist with the assessment of patients with acute lower back pain and radiculopathy. The objective of the guidelines is to ensure timely investigation and appropriate referral of patients with suspected cauda equina syndrome (CES).

Provide a structured outline of the guidelines you have developed.

CASE 5

Robyn, a medical student aged 22 years, presents with left leg weakness and difficulty walking.

QUESTION 9

Robyn is subsequently diagnosed with a functional gait disorder. Describe two physical examination findings relating to a patient's gait that may suggest they have a functional gait disorder.

QUESTION 10

You decide to run a workshop for general practice registrars on functional neurological disorders. What five management principles would you recommend that registrars include when they are developing a treatment plan for a patient with a functional neurological disorder?

June 2025 Multiple-choice question answers

ANSWER 1: B

In the study by Hiscock et al (Paediatric care in general practice: Case mix, referral patterns and healthcare costs), general practitioners referred 4420 of 43,301 (10.2%) children. Within the mental health and developmental–behavioural reason categories, most referrals were to private specialists, especially for attention deficit hyperactivity disorder (40.0% of consultations referred to private specialist), behaviour problems (37.1%), anxiety (31.1%) and autism spectrum disorder (26.9%). Referrals to allied health were common for speech delay and behaviour problems. Referrals to hospital clinics or to emergency departments were uncommon (2.4%).

ANSWER 2: A

Swelling of the eyelids does not differentiate orbital cellulitis from periorbital cellulitis as it can be present in both periorbital and orbital cellulitis. Moderate swelling with impaired eyelid opening reducing ability to examine pupils and eye movements is a sign that possibly indicates orbital cellulitis.

ANSWER 3: B

Initial investigation for a child presenting with a murmur include a chest X-ray and an electrocardiogram.

ANSWER 4: D

A systolic vibratory murmur is not a red flag in the context of a paediatric heart murmur. Not all murmurs are red flags. A Still's murmur is an innocent murmur characterised by vibratory or musical systolic murmur heard maximally at the left lower sternal edge and apex. The murmur intensity reduces on sitting up and extension of the neck.

The red flags for paediatric heart disease are:

- Shortness of breath or diaphoresis with feeds (neonates, infants) or reduced exercise tolerance (children)
- Poor growth
- Central cyanosis or abnormal oxygen saturation (the child might have abnormal levels without appearing overtly cyanotic)
- Abnormal pulses
- Upper and lower limb blood pressure differential
- Hypertension with a murmur
- Abnormal chest X-ray or electrocardiogram concerning for a cardiac pathology

ANSWER 5: C

Paediatric functional abdominal pain disorders affect approximately 13.5% of children worldwide.

ANSWER 6: B

The most common area of low-value care was overuse of antibiotics for upper respiratory tract infections, which involved 511/4469 (11.4%) of paediatric consultations.

ANSWER 7: C

General practitioners practising for more than 15 years had a 9.8% increased risk of providing low-value care (95% CI: 4.0–15.6), making it a significant predictor.

ANSWER 8: C

The study by Lim (Head and neck pits in an infant) specifies that individuals without a family history require three major (or two major and two minor) criteria for a branchio-oto-renal syndrome diagnosis. Brachial anomaly, hearing impairment and renal anomalies are all major criteria, making this combination sufficient.

ANSWER 9: D

The study by Withanage et al did not find cost raised as a barrier to this proposal. In fact, most participants suggested that adapting current reminder systems for preconception care would be acceptable and feasible. Participants stated that general practices currently have systems that send electronic reminders to patients to attend the clinic for many existing conditions.

ANSWER 10: C

Seven out of 17 (41.18%) Aboriginal and Torres Strait Islander children stopped using the device within one week.

June 2025 Short answer question answers

ANSWER 1

The study by Hiscock et al of general practitioners in Victoria and New South Wales found that of 49,932 consultations, medical issues were the most frequent reason for the visit (n=29,289), followed by immunisations (n=7745), developmental–behavioural concerns (n=1170), encounters for check-up (n=1143) and mental health concerns (n=888).

ANSWER 2

The study by Hiscock et al proposed: 'This could reflect a 'sweet spot' whereby general practitioners with more experience than those working for less than six years have greater confidence to manage mental health and developmental–behavioural problems, whereas those practising for longer may have missed out on training in the 'new morbidities' of developmental–behavioural and mental health problems.'

ANSWER 3

Two of the most common types of innocent murmurs are a pulmonary flow murmur and Still's murmur. A pulmonary flow murmur is a soft, low-pitched ejection systolic murmur heard at the upper sternal borders, without radiation, which often disappears when upright. A Still's murmur is a vibratory or musical systolic murmur heard maximally at the left lower sternal edge and apex. The murmur intensity reduces on sitting up and extension of the neck.

Innocent murmurs are characterised by lack of concurrent symptoms or signs, such as desaturation, respiratory distress, heaves, thrills, hepatomegaly or oedema.

Both electrocardiogram and chest X-ray are the most appropriate initial investigations and are required to be normal in order to label the murmur as innocent.

ANSWER 4

Although functional abdominal pain disorders can be diagnosed without extensive investigations, the Rome IV diagnostic criteria specify the importance of identifying and excluding any underlying

organic causes. As a thorough clinical assessment is usually sufficient to exclude organic causes, investigations should only be performed if indicated and must be targeted to likely diagnoses. For examples of potential investigations, see Box 2 in the paper by Gajendran et al (Functional abdominal pain disorders in children).

ANSWER 5

All children with orbital or periorbital cellulitis will present with erythema and swelling of the eye and/or surrounding skin. Several important signs to identify when assessing for orbital cellulitis that differentiate it from periorbital cellulitis are:

- moderate swelling with impaired eyelid opening, reducing ability to examine pupils and eye movements
- conjunctival injection, chemosis and discharge
- proptosis
- reduced eye movements
- pain on eye movements
- diplopia
- reduced visual acuity
- visual field defects
- asymmetric pupillary size
- abnormal pupillary reflexes
- evidence of rhinosinusitis or odontogenic infection
- impaired colour perception (specifically red) because this is an early sign of optic nerve injury (it can be identified using Ishihara colour plates)
- severe headaches or other features indicating intracranial involvement.

ANSWER 6

The following are some features from history-taking only that might suggest cardiac review:

- Respiratory distress – this can manifest in the infant during feeding as with short, frequent feeds or as exertional dyspnoea in older children
- Poor growth – particularly in neonates and infants
- Cyanosis – this might be intermittent or exertional
- Exertional syncope

ANSWER 7

Ophthalmoplegia and pain on left-lateral gaze suggested orbital cellulitis. A computed tomography scan confirmed the diagnosis.

ANSWER 8

In the study by Withanage et al, the identification of patients with preconception health risk factors using data from electronic medical records was deemed acceptable and feasible by most participants. However, the acceptability of inviting women with preconception health risk factors to participate in preconception care (PCC) could be increased by targeting women with reproductive intent, mentioning only generic risk in the invitation to avoid stigma or by emphasising the importance and availability of PCC rather than issuing a direct invitation to attend for PCC.

ANSWER 9

The factors that were considered barriers for engagement with the nasal-balloon treatment included:

- younger children having difficulty with blowing through their nose
- larger families or multiple caregivers struggling with regular use
- school commitments making it difficult to remember during the day
- losing interest and waning novelty.

ANSWER 10

The factors that were considered helpful for engagement with nasal-balloon auto-inflation treatment for otitis media with effusion include: buy-in from caregivers and children, as well as ongoing encouragement by surrounding supporters including healthcare practitioners. Optimising results requires motivation strategies like gamification and engaging family members in treatment delivery.

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