Clinical challenge

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

CASE 1

You have a medical student in your practice who is very interested in paediatrics. They have read the June issue of *AJGP* and have lots of questions.

QUESTION 1

In any given paediatric visit, how likely is a general practitioner to refer the patient to another service?

A. 5%
B. 10%
C. 15%
D. 20%

QUESTION 2

Which of the following does NOT differentiate orbital cellulitis from periorbital cellulitis?

A. Swelling of the eyelids
B. Impaired colour perception
C. Abnormal pupillary reflexes
D. Conjunctival injection

QUESTION 3

Initial investigation of a paediatric murmur includes an electrocardiogram and:

A. Echocardiogram
B. Chest X-ray
C. 24-hour blood pressure monitoring
D. B-natriuretic peptide

QUESTION 4

Which of the following is NOT a red flag in the context of a paediatric heart murmur?

A. Hypertension on the upper limbs
B. Poor growth at six months
C. Diaphoresis with feeding
D. A systolic vibratory murmur

QUESTION 5

How prevalent are functional abdominal pain disorders in children?

A. 3.5%
B. 8.5%
C. 13.5%
D. 18.5%

QUESTION 6

In the paper by Morris et al (Intervention overuse in paediatric care in Australian metropolitan general practice), which intervention and condition combination represented the most common instance of low-value care in the study?

How to use *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.

However you prefer to engage with the issue, you can use *AJGP* for 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. CPD for this issue will enable you to meet your Program-Level Requirements of Addressing Health Inequities.

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 evaluating your practice setting's approach to preconception care, including how you utilise your electronic medical records and the roles of those in your practice team. Assess how you prioritise activity according to those with identified need and support patients to achieve their goals, as outlined in the article by Withanage et al.

Evaluate and implement 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.

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 article.

The **Measuring Outcomes (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.

Important notice: The AJGP Clinical Challenge will be moving to **digital-only** soon. From July 2025, you can access your CPD activity through the AJGP website (www1.racgp.org.au/ajgp/home) or on *gplearning*.

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

Scan the QR code for a custom quick log when you read the whole issue without completing the Clinical challenge.

A. Antibiotics for asthma/wheeze
B. Antibiotics for upper respiratory tract infections
C. Imaging for constipation/abdominal pain
D. Proton pump inhibitors for infant crying/reflux

QUESTION 7

Which general practitioner characteristic was associated with a significantly higher risk of providing low-value care?

A. Male gender
B. Bulk-billing clinic
C. Practising for more than 15 years
D. Use of HealthPathways

QUESTION 8

In the context of branchio-oto-renal syndrome, which combination of findings in an individual with no family history would be sufficient to confirm the diagnosis according to the diagnostic criteria?

A. Preauricular pits and hearing impairment
B. Brachial anomaly, preauricular pits and external ear anomalies
C. Brachial anomaly, hearing impairment and renal anomalies
D. Renal anomalies and inner ear anomalies

CASE 2

You are very keen to improve the rates of preconception care in your clinic and wonder whether using a tool to search through your practice software and electronically invite at-risk women would be considered acceptable to patients.

QUESTION 9

In the study by Withanage et al (Optimising the use of general practice medical records to support preconception care: A qualitative study), which of the following was NOT found to be a barrier to this proposal?

A. Incomplete electronic medical record (EMR) data
B. The absence of conception intent being recorded in EMRs
C. The confronting nature of sending women unsolicited health invitations
D. The cost of generating and sending the invitations

CASE 3

You have heard about nasal-balloon auto-inflation devices and believe that they might be able to help children with otitis media with effusion; however, you wonder how to optimise the children's willingness to use the device.

QUESTION 10

In the study by Campell et al (Ready, set, blow: A mixed method enquiry into the use of nasal balloon auto-inflation treatment for otitis media with effusion), what proportion of Aboriginal and Torres-Strait Islander children stopped using the device within one week?

A. 21%
B. 31%
C. 41%
D. 51%

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

CASE 1

You have a medical student in your practice who is very interested in paediatrics. They have read the June issue of *AJGP* and have lots of questions.

QUESTION 1

According to the study by Hiscock et al (Paediatric care in general practice: Case mix, referral patterns and healthcare costs), what are the most common reasons for paediatric patients to present to a general practitioner?

QUESTION 2

In the study by Hiscock et al, it was found that the general practitioner group practising for 6–15 years referred fewer patients than other groups. What were the proposed explanations for this?

QUESTION 3

Discuss two types of innocent murmurs in children, along with their initial investigations.

QUESTION 4

Discuss how to appropriately investigate functional abdominal pain disorders.

QUESTION 5

How is orbital cellulitis differentiated from periorbital cellulitis?

QUESTION 6

In a child with a heart murmur, name some features from history-taking only that would suggest a need for urgent cardiologist referral.

QUESTION 7

In the clinical case presented by Delahunty et al (Orbital cellulitis in the paediatric population) what features present on day 2 that are suggestive of orbital cellulitis?

CASE 2

You are very keen to improve the rates of preconception care in your clinic and wonder whether using a tool to search through your practice software and electronically invite at-risk women would be considered acceptable.

QUESTION 8

What evidence is there of the perceptions of general practitioners and practice nurses to such a proposal?

CASE 3

You have heard about nasal-balloon auto-inflation devices and believe that they might be able to help children with otitis media with effusion; however, you wonder how to optimise the children's willingness to use the device.

QUESTION 9

In the study by Campbell et al (Ready, set, blow: A mixed method enquiry into the use of nasal balloon auto-inflation treatment for otitis media with effusion), what factors were considered barriers for engagement with the nasal-balloon treatment?

QUESTION 10

In the study by Campbell et al (Ready, set, blow: A mixed method enquiry into the use of nasal balloon auto-inflation treatment for otitis media with effusion), what factors were considered helpful for engagement with the nasal-balloon treatment?

May 2025 Multiple-choice question answers

ANSWER 1: D

The most common condition to cause early breast development in girls is isolated premature thelarche. First defined by Wilkins et al in 1957, this condition refers to 'isolated breast development in the absence of any other clinical signs of pubertal maturation in girls younger than eight years, predominantly in the first two years of life'.

ANSWER 2: A

There are no reliable tests which can distinguish premature thelarche cases that will regress versus those that progress to premature puberty. However, there are several risk factors which are statistically significant for progression to precocious puberty, including:

- breast development which commences after 5–6 years of age
- girls presenting with Tanner stage 3 breast score, which has a seven-fold increased risk
- larger ovarian volume on pelvic ultrasound

ANSWER 3: C

Females with precocious puberty may have premature thelarche, along with additional signs of puberty such as early onset of pubarche (development of pubic hair) and menarche (menstruation), often accompanied by advanced growth and advanced bone age.

ANSWER 4: D

Bone age is the most reliable method to distinguish isolated premature thelarche from precocious puberty.

An X-ray of the left hand and wrist compared to a standardised bone age atlas will determine if bone age is advanced. A bone age more than one year or two standard deviations greater than chronological age warrants referral.

ANSWER 5: C

Modifiable risk factors such as post-menopausal overweight and obesity, alcohol consumption and physical inactivity contribute to around 21% of global breast cancer deaths.

ANSWER 6: C

There are two main categories of chemoprophylactic agents: selective estrogen receptor modulators (SERMs) – tamoxifen and raloxifene; and aromatase inhibitors (AIs) – anastrozole and exemestane. Tamoxifen is suitable for both pre-menopausal (but not when trying to conceive, pregnant or breastfeeding) and post-menopausal women, while raloxifene is only suitable for post-menopausal women.

ANSWER 7: B

Women at moderate risk may be advised to undergo annual mammography starting at age 40 years.

ANSWER 8: B

Women with moderately dense breasts have approximately 1.5 times the risk of breast cancer, and women with moderately non-dense breasts have approximately 0.6 times the risk of breast cancer compared with women with averagely dense breasts.

ANSWER 9: B

The rates of lactational mastitis are variable in the literature with the World Health Organization (WHO) review giving rates between 5% and 50% of breastfeeding women and a Cochrane report suggesting rates up to 33%. Australian data suggest a lactational mastitis rate of 20%, which is most common in the first six weeks of breastfeeding.

ANSWER 10: A

Nipple candidiasis presents as nipple and breast pain, often described as burning and stinging, during breastfeeding and after feeding has finished (not just with latching on, which may be due to skin breakdown or poor attachment). Other symptoms are deep aching breast pain radiating into the back or down the arm. The nipple itself may look normal but might also have erythema (pink and shiny nipple) and cracking.

May 2025 Short answer question answers

ANSWER 1

Females with isolated premature thelarche (PT) typically exhibit isolated breast development without signs of pubarche (pubic hair) or menarche. They maintain normal growth velocity and bone age. In contrast, females with precocious puberty (PP) may have PT, along with additional signs of puberty such as pubarche and menarche, often accompanied by advanced growth and advanced bone age. Because PT usually precedes the other manifestations of PP, it is an important 'canary in the coalmine' for general practitioners to recognise the red flags and prompt early intervention to prevent early epiphyseal fusion, altered growth trajectories and significant lifelong impacts.

ANSWER 2

A detailed history of both the child and mother's health and parental pubertal and growth history should be obtained. Determine the age of onset of breast development, evaluate if it is stable, cyclical or progressive, and inquire about any accompanying signs such as pubic hair development or menarche, and growth spurts. Breast, pubertal development and growth spurts that are out-of-keeping with parental history or a family history of precocious puberty might indicate an increased risk of precocious puberty for the child.

Assess for possible reversible causes, including the caregiver's use of transdermal hormones and natural therapies used for colic. It is also important to assess the family's anxiety levels, as addressing psychological distress can improve quality-of-life scores.

ANSWER 3

- Assess breast development. Breast development should be classified using Tanner stages, which describe the expected timing and sequence of normal pubertal development. After seeking appropriate permissions and with the child's parents present,

perform an examination with the child lying down. Determine if the breast enlargement is glandular tissue or lipomastia, and assess which breast Tanner stage is present. Tanner stage 2 breast development has a small breast bud mound. Tanner stage 3 has further enlargement of the breast mound and areola.

- Assess for additional secondary sexual characteristics if indicated.
- Assess growth. A standardised technique must be used when assessing growth. Equipment and standardised growth charts must be accurate and appropriate for the child's age. Length is measured in the recumbent (lying) position for infants aged younger than 24 months or children aged 24–36 months who cannot stand unassisted. Use a calibrated digital or mechanical Infantometer with a fixed headboard and a smoothly moving footboard.

  Height is measured for infants over two years and is measured in the standing position, using a stadiometer (height measurer) or a correctly installed 'pull down' measure.

  Perform regular and consistent monitoring at three- to six-monthly intervals to analyse the pattern or trend of growth when plotted on a growth chart.
- Consider assessing the psychological and emotional impact on the child, according to their age and other clinical findings.

ANSWER 4

Most children with Tanner stage 2 breast development can be assessed and monitored with a history, physical examination and review of their growth chart, with regular observation at three- to six-month intervals. Emotional wellbeing should also be evaluated as females with benign isolated premature thelarche (PT) have a higher Revised Child Anxiety and Depression Scale (RCADS) score and a lower physical Pediatric Quality of Life Inventory (PedsQL) psychosocial score.

In the age-under-two-years group, stable or regressing breast development over 12 months with height centiles following expected centile lines and no additional signs of abnormal pubertal development for chronological age typically indicates benign isolated PT, and no additional hormonal studies or bone age assessments are needed. They can be reassured of progressing to predicted menarche consistent with maternal age of menses, and obtaining a final height consistent with, or slightly higher than, predicted final height.

For cases that have not regressed by age three years, or that present later, ongoing three-monthly assessments of pubertal stages and growth should occur until normal development is observed or red flags emerge that require further investigation and referral.

Parents can be educated on the normal and abnormal pubertal signs to monitor and should be advised on when to present for an earlier review.

Despite its mostly benign, self-limiting and reversible nature, general practitioners and parents/caregivers need to remain vigilant for deviating clinical signs and manage their potential physical and psychosocial impacts. Parents may feel concerned or responsible for their child's development, while older children may experience anxiety and social challenges due to their physical differences.

It is essential to provide support and consider referrals to child psychologists to prevent secondary psychosocial harm and referral to paediatricians if red flags suggesting progression to precocious puberty develop.

ANSWER 5

Modifiable breast cancer risks include post-menopausal overweight/obesity, physical inactivity and alcohol use. Examples of how to apply the 5As can be found at www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/snap/approach-to-preventive-care-in-general-practice.

ANSWER 6

Risk assessment tools available in Australia are iPrevent, CanRisk (BOADICEA v7) and IBIS (Tyrer-Cuzick v8).

CanRisk is designed for use by healthcare professionals to help them communicate and discuss breast and ovarian cancer risk with their patients.

IBIS/Tyrer-Cuzick calculates breast cancer risk by combining familial risk with classic risk factors, with the latest version (v8) incorporating mammographic density. Tyrer-Cuzick v8 or later is considered the 'clinically relevant evaluation algorithm' for risk estimation to support the MRI Medicare rebate (MBS item 63464) eligibility for patients at high risk of developing breast cancer.

iPrevent, developed in Australia, is a clinical resource accepted by the Royal Australian College of General Practitioners (RACGP). It can be completed online by women and/or their general practitioners to facilitate prevention and screening discussions. Focus groups of consumers and familial cancer clinicians (FCCs) support its use. iPrevent presents risk information as a statistic, a pictogram and a graph to account for different preferences for receiving risk information. It is the only tool that also presents screening and prevention options appropriate to the estimated risk, based on Australian guidance.

ANSWER 7

Side effects include vasomotor symptoms, vaginal discharge and vaginal dryness. More serious complications associated with tamoxifen include an increased risk of endometrial cancer and thrombo-embolic disease.

ANSWER 8

Fewer than 10% of women have breasts in the lowest and highest quartiles of breast density; and breast cancer risk among women with dense breasts is more usefully compared to women with average breast density. Accordingly, women with moderately dense breasts have approximately 1.5 times the risk of breast cancer and women with moderately non-dense breasts have approximately 0.6 times the risk of breast cancer compared with women with averagely dense breasts.

Breasts become less dense as women age.

In addition to increasing risk of future breast cancer, dense breast tissue can obscure mammographic findings, potentially delaying diagnosis. Women with dense breasts are more likely to benefit from supplemental screening modalities such as ultrasound or MRI. However, evidence remains insufficient to recommend routine supplemental screening for dense breasts.

ANSWER 9

In the context of lactation, mother and baby are treated together. Treatment of the mother is miconazole oral gel/cream or nystatin cream to the nipple with no need to wipe it off before next feed. Treatment of the baby is 1.5 mL of miconazole oral gel, which can be administered with a clean finger to the cheeks and tongue. Further information is available at www.thewomens.org.au/health-professionals/clinical-resources/clinical-guidelines-gps.

ANSWER 10

- Atopic dermatitis (AD), particularly if there is itch. Nipple AD frequently flares during breastfeeding and is the cause of 50% of nipple dermatitis that occurs during breastfeeding. Treatment is similar to AD elsewhere on body. Potent topical steroids such as mometasone furoate 0.1% ointment are useful on the nipple as they moisturise and treat, and, if the woman is breastfeeding, will be absorbed before the next feed. These can be used for up to seven days, as the nipple skin is thin and prone to atrophy. In the context of breastfeeding, ointments should be applied after a feed.
- Raynaud's phenomenon of the nipple. Raynaud phenomenon of the nipple is caused by vasospasm of the nipple. It occurs primarily in breastfeeding mothers but can occur in women who have never had children. The main symptom is white painful nipples. If breastfeeding, these changes may occur before, during or after feeding. Symptomatic relief is basically warming methods and keeping warm. Suggestions are to avoid smoking, caffeine, beta-blockers and vasoconstrictors. Medical treatments (eg calcium-channel blockers) are a last resort when symptomatic treatment does not work, and are not suitable for all.
- Lactational mastitis. This is common in the first six weeks of breastfeeding. The most common causative organism is *Staphylococcus aureus*, and first-line antibiotic recommendations are flucloxacillin or dicloxacillin 500 mg qid for five days. Studies show that treating mastitis with antibiotics shortens the episodes and reduces the progression to abscess formation. Patients should keep breastfeeding or expressing milk during treatment to reduce milk stasis in the breast.

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