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Key Feature Problem
Practice Exam A – 2023.2
QUESTION BOOKLET

Before starting the exam, you must read and sign the **Candidate Assessment Policies Consent Sheet contained on the next page.**

INSTRUCTIONS

The RACGP Key Feature Problem (KFP) Practice Examination has **13 cases** with each case containing **two or more questions** to be completed within **2 hours**.

There are two types of question – written and selection list (multiple choice). Please refer to the **answer instruction below** for how to submit your responses.

Please refer to the **separate image booklet** for all images.

Please note:

- All stated patient temperatures are measured tympanically and medication doses are all oral unless otherwise stated. Abnormal results appear in **bold** text with an asterisk (*) after the unit result and includes results that are not presented in a table.
- From 2023.2 onwards there will be no drug doses required within the KFP, though candidates may still be required to provide route of administration or frequency of administration.

ANSWER INSTRUCTIONS

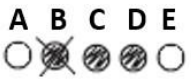
WRITTEN RESPONSE:

Neatly write your responses on the lines allocated. If you need to change a response, cross it out and re-write it nearby. Ensure it is obvious which question your answer applies to.

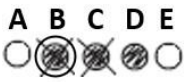
MULTIPLE CHOICE RESPONSE:

Shade inside the circles that correspond to your choice using a black pen.

If you make a mistake, place a cross through the circle you want to remove, and shade a new choice:
In this example, B has been removed and C and D have been selected.



If you decide to reselect a response previously crossed out, circle your choice and make sure to cross out any unwanted choices:
In this example, C has been removed and B and D have been selected.



CANDIDATE DETAILS:

RACGP ID:

First Name:

Last Name:

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- The RACGP may act under the Academic Misconduct Policy upon report of any form of cheating. Such behaviour may have consequences to attainment of Fellowship.
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Candidate name: _____

Candidate signature: _____ **Date:** _____

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Case 1

Bao Dinh, aged 5 years, is brought in to your practice by his father, Ang. Ang is concerned that Bao is too short compared with his preschool peers, and that his penis also appears to be small. Bao's preschool teacher has voiced concerns that Bao has been more tired than usual, and he often asks for extra snacks in between meal times. His literacy level is slightly behind other children in his class, but his ability to count and use numbers is in keeping with his peers. In the past six months, Bao has had three upper respiratory tract infections and two middle ear infections. He has been otherwise well recently.

Bao has no significant past medical history, takes no regular medications and has no known allergies. He is reaching appropriate developmental milestones. He is an only child and was born at 32 weeks' gestation weighing 1500 g. He spent eight weeks in neonatal intensive care. At discharge, Bao's weight was 2.4 kg (3rd percentile) and he has remained on the 3rd percentile for weight, height and head circumference. Ang's height is 165 cm (5th percentile) and his wife's height is 155 cm (10th percentile). Ang and his wife migrated to Australia from Vietnam two years before Bao was born. Bao attends the local preschool five days per week.

On examination, Bao looks well and is happy and interactive. His temperature is 36.9°C, blood pressure 100/70 mmHg, heart rate 100/min regular, respiratory rate 20/min, oxygen saturation 99% on room air, weight 15 kg (3rd percentile), height 100 cm (3rd percentile) and body mass index 15 kg/m^2 (25th percentile). Genital examination reveals bilateral descended testes and a penile length of 2 cm (normal range: 3.4–5.5 cm). The remainder of his examination is normal.

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Question 1.1

What are the most likely differential diagnoses to account for Bao's presentation? Write **four (4)** specific diagnoses.

1. ……

2. ……

3. ……

4. ……

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Question 1.2

What initial investigations are appropriate?

Select **six (6)** investigations from the following list.

A. Adrenocorticotropic hormone
B. Coeliac serology
C. Dexamethasone suppression test
D. Follicle-stimulating hormone
E. Full blood count
F. HbA1c
G. Insulin
H. Insulin-like growth factor 1
I. Karyotype
J. Liver function tests
K. Luteinising hormone
L. Parathyroid hormone
M. Prolactin
N. Serum calcium
O. Serum cortisol
P. Serum folate
Q. Sex hormone-binding globulin
R. Synacthen stimulation test
S. Testosterone
T. Thyroid function tests
U. Ultrasound abdomen
V. Ultrasound scrotum
W. Urea and electrolytes
X. Urine cortisol
Y. Urine for microscopy, culture and sensitivities
Z. Vitamin D

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……●

If you make a mistake, place a cross though the circle you want to remove, like this: ……⊗

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

○ ○

Question 1.3

Bao is managed appropriately.

One year later, Bao, aged 6 years, returns with Ang who reports that Bao has never been immunised and that he would like to arrange a catch-up of his immunisations. He does not want Bao to have an influenza or COVID-19 immunisation.

According to the Australian National Immunisation Program Schedule, which vaccinations are appropriate for Bao today? Write **three (3)** specific vaccinations. Brand names are acceptable.

1. ……

2. ……

3. ……

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Case 2

Tara D'Rozario, aged 11 years, presents with her parents reporting a six-month history of recurrent mild 'crampy' dull upper abdominal pain associated with dizziness and nausea. The episodes occur several times per week, mainly during school, before recess and at lunchtimes, and last about 1–2 hours. Tara's teachers usually direct her to the school sick bay, where she stays until the episode resolves. Her mother has had to pick Tara up early from school several times in the past six months. Her symptoms do not seem to occur on the weekends. There is no relationship between the pain and meals. Tara's bowel habits are normal, and her diet is unchanged. Tara has had trouble getting to sleep recently, often lying in bed awake until midnight.

Tara has no significant past medical history, takes no regular medications and has no known allergies. Her immunisations are up to date and she is reaching appropriate developmental milestones. Tara is an only child and lives at home with her parents. She is in Year 5 at the local primary school. She enjoys weekend art lessons and netball.

On examination, Tara looks well. Her temperature is 37.1°C, blood pressure 110/70 mmHg, heart rate 80/min regular, respiratory rate 22/min, oxygen saturation 98% on room air, weight 50 kg, height 148 cm and body mass index 22.8 kg/m^2 (all 90th percentile). The remainder of her examination is normal.

Tara's urinalysis is normal and random blood glucose level is 3.9 mmol/L.

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Question 2.1

What are the most likely differential diagnoses? Write **four (4)** specific diagnoses.

1. ……

2. ……

3. ……

4. ……

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Question 2.2

You arrange appropriate investigations that are all normal.

What pharmacological management options are appropriate? Write **two (2)** specific pharmacological management options. Medication dosages are not required.

1. ……

2. ……

Question 2.3

Tara is managed appropriately, and her symptoms resolve.

Two months later, Tara returns with her mother reporting a one-month history of a lump in Tara's right breast. Her mother is concerned because there is a strong family history of breast cancer.

On examination, Tara looks well. Her temperature is 36.6°C, blood pressure 112/65 mmHg, heart rate 72/min regular, respiratory rate 18/min, oxygen saturation 99% on room air and body mass index 26.7 kg/m^2 (>95th percentile). Breast examination reveals a firm non-tender swelling behind her right areola.

What advice is appropriate? Write **one (1)** specific piece of advice.

1. ……

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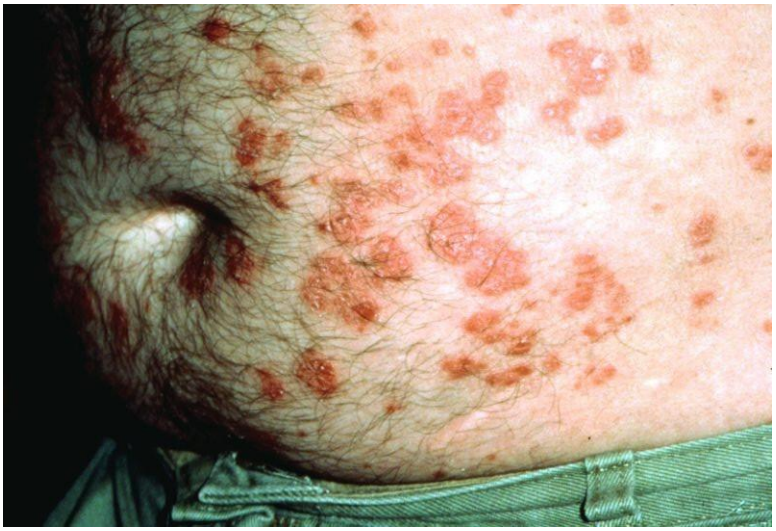
Case 3

Trent Morello, aged 47 years, reports a two-week exacerbation of a rash on his trunk. The rash has been recurrent for several years. He uses sorbolene cream and topical betamethasone valerate 0.02% topically twice daily to affected areas when the rash flares up, but he has not had any improvement this time. Three weeks earlier, he strained his back while gardening and has been taking naproxen 500 mg twice daily to manage his pain. He has been otherwise well recently.

Trent has no other significant past medical history, takes no other regular medications and has no known allergies. He smokes 10 cigarettes per day, which he has done for the past 30 years, although this has increased to 20 cigarettes per day over the past four weeks. He explains that the increase in smoking is because he has been feeling 'down', as he has been unable to work since hurting his back. He has four standard drinks of alcohol most nights.

On examination, Trent looks well. His temperature is 36.7°C, blood pressure 135/85 mmHg, heart rate 78/min regular, respiratory rate 12/min, oxygen saturation 97% on room air and body mass index 32.3 kg/m^2. You note the rash on his trunk (see image). The remainder of his examination is normal.



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Question 3.1

In the given history and examination, what factors are likely to have exacerbated Trent's rash? Write **three (3)** specific factors.

1. ……

2. ……

3. ……

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Question 3.2

Apart from the use of emollients, what topical pharmacological management options are appropriate? Write **three (3)** specific pharmacological management options (dosing is not required). Brand names are acceptable.

1. ……

2. ……

3. ……

Question 3.3

What initial investigations are appropriate? Select **two (2)** investigations from the following list.

A. Anticyclic citrullinated peptide antibody
B. Anti-double-stranded deoxyribonucleic acid antibody
C. Antineutrophil cytoplasmic antibody
D. Antinuclear antibody
E. Coagulation studies
F. Echocardiogram
G. Electrocardiogram
H. Extractable nuclear antigen antibody
I. Fasting lipids
J. Full blood count
K. HbA1c
L. Human leucocyte antigen B27
M. Human leucocyte antigen DQ2
N. Iron studies
O. Prostate-specific antigen
P. Rheumatoid factor
Q. Serum calcium
R. Serum magnesium
S. Serum phosphate
T. Serum urate
U. Thyroid function tests
V. Urine for microscopy, culture and sensitivities
W. Vitamin B12
X. Vitamin D
Y. X-ray hands
Z. X-ray lumbosacral spine

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……

If you make a mistake, place a cross though the circle you want to remove, like this: ……

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

○ ○

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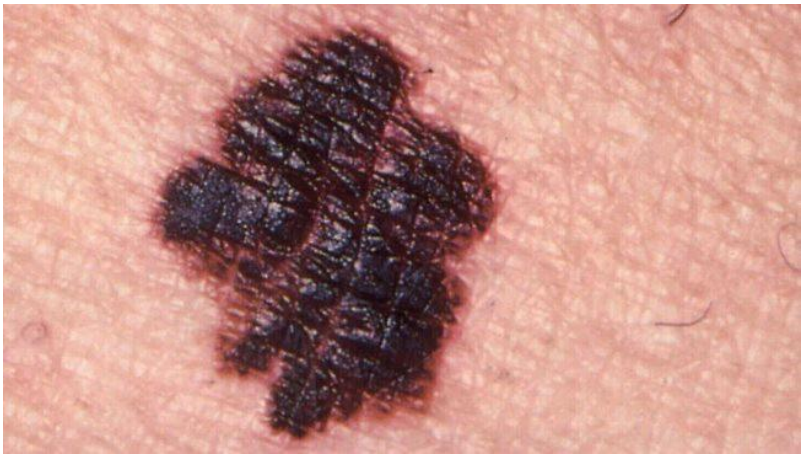
Case 4

Nathan DeMarco, aged 54 years, presents for his annual diabetes review. He has been well recently.

Nathan has a past medical history of hypertension, atrial fibrillation and type 2 diabetes, for which he takes ramipril 5 mg daily, apixaban 5 mg twice daily, dapagliflozin 10 mg daily and metformin XR 1 g twice daily. He does not smoke and has two standard drinks of alcohol five nights per week.

On examination, Nathan looks well. His temperature is 36.7°C, blood pressure 145/95 mmHg, heart rate 65/min irregularly irregular, respiratory rate 14/min, oxygen saturation 97% on room air and body mass index 28.5 kg/m^2. You incidentally note a lesion on his right shoulder, measuring 7 mm×6 mm (see image). The remainder of his examination is normal.

Nathan's point-of-care HbA1c is **60 mmol/L* (7.6%*)** (normal range: 20–42 [4–6%]).



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Question 4.1

What immediate management action is appropriate for Nathan's skin lesion?
Write **one (1)** specific management action.

1. ……

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Question 4.2

What risks are appropriate to discuss with Nathan regarding the management of his skin lesion? Write **three (3)** specific risks.

1. ……

2. ……

3. ……

Question 4.3

Nathan is managed appropriately.

Six months later, Nathan returns after an episode of biliary colic that was treated at the local hospital. He tells you he is having an elective cholecystectomy next week.

On examination, Nathan looks well. His temperature is 36.9°C, blood pressure 139/87 mmHg, heart rate 71/min irregularly irregular, respiratory rate 12/min, oxygen saturation 98% on room air and body mass index 28.5 kg/m^2. The remainder of his examination is normal.

What medication management advice is appropriate to discuss with Nathan in preparation for his procedure and general anaesthetic? Write **two (2)** specific pieces of medication management advice.

1. ……

2. ……

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Case 5

Joe Holden, aged 3 years, presents with his parents. His parents report that Joe has a three-week history of mild intermittent fevers and a clear runny nose. He has been off his food, and is lethargic and more grumpy than usual. Over the past week, Joe has also developed an increasingly harsh, dry cough that occurs in spasms. COVID-19 has been definitively excluded.

Joe has no significant past medical history, takes no regular medications and has no known allergies. His immunisations are up to date and he is reaching appropriate developmental milestones. He lives with his parents and younger sister, aged 5 months. He and his sister attend the local day-care centre three days per week. He has no significant family medical history.

On examination, Joe looks well, although he is quiet. His temperature is 37.6°C, blood pressure 90/60 mmHg, heart rate 190/min regular, respiratory rate 50/min, oxygen saturation 96% on room air, weight 15 kg, height 95 cm and body mass index 16.6 kg/m^2 (all 50th percentile).

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Question 5.1

What are the most likely differential diagnoses? Write **four (4)** specific diagnoses.

1. ……

2. ……

3. ……

4. ……

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Question 5.2

You arrange appropriate investigations that confirm the single most likely underlying diagnosis.

What immediate management actions are appropriate? Write **three (3)** specific management actions (drug names and dosing are not required).

1. ……

2. ……

3. ……

Question 5.3

Joe is managed appropriately and his cough resolves.

One year later, Joe, aged 4 years, returns with his parents who report that Joe has a three-month history of a mild cough occurring in the morning and at night. The cough is associated with a persistent runny nose that causes him to sneeze and to rub his nose repeatedly in an upward motion. COVID-19 has been definitively excluded.

On examination, Joe looks well, but has slightly red eyes and clear rhinorrhoea. His temperature is 36.2°C, blood pressure 95/75 mmHg, heart rate 100/min regular, respiratory rate 20/min, oxygen saturation 99% on room air, weight 16.5 kg, height 102 cm and body mass index 15.4 kg/m^2 (all 50th percentile). Ear, nose and throat examination reveals a small crease across the top of his nose and mildly enlarged erythematous turbinates. The remainder of his examination is normal.

What pharmacological management options are appropriate? Write **three (3)** specific pharmacological management options (dosing is not required). Brand names are acceptable.

1. ……

2. ……

3. ……

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Case 6

George Bright, aged 23 years, presents with his mother who reports a four-month history of a change in George's behaviour. She has been worried because George has been confining himself to his room and has been much quieter than usual. He has had periods of time where he does not seem to shower and he has not shaved for many months. More recently, he has been explaining that he has been watching political conflict on television and knows that if he leaves the house this might cause further conflict. He also believes everybody outside the house is looking at him and talking about him. At other times he will seem absent, sitting silently and not moving for hours.

George has no significant past medical history, takes no regular medications and has no known allergies. He does not smoke, drink alcohol or use recreational drugs. He was working part time as a chef until three months ago but is now unemployed. He has no significant family medical history.

On examination, George looks well but does not make eye contact. His temperature is 36.5°C, blood pressure 121/76 mmHg, heart rate 74/min regular, respiratory rate 11/min, oxygen saturation 99% on room air and body mass index 23.9/m^2.

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Question 6.1

In the given history, what aspects support the single most likely underlying diagnosis? Write **four (4)** specific aspects of history.

1. ……

2. ……

3. ……

4. ……

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Question 6.2

What organic causes of George's presentation are appropriate to consider?
Write **five (5)** specific causes.

1. ……

2. ……

3. ……

4. ……

5. ……

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Question 6.3

You arrange appropriate investigations, which exclude an organic cause for George's presentation.

George subsequently has a four-week admission to the local psychiatric inpatient unit and is commenced on clozapine 400 mg at night. The unit staff ask him to return to see you one week post-discharge for ongoing care.

What investigations are appropriate? Select **six (6)** investigations from the following list:

A. Blood film	N. Prolactin
B. C-reactive protein	O. Serum calcium
C. Clozapine level	P. Serum cortisol
D. CT scan brain	Q. Serum folate
E. Electrocardiogram	R. Serum insulin
F. Electroencephalogram	S. Serum magnesium
G. Erythrocyte sedimentation rate	T. Serum phosphate
H. Fasting glucose	U. Thyroid function tests
I. Fasting lipids	V. Troponin
J. Full blood count	W. Urea and electrolytes
K. Iron studies	X. Vitamin B12
L. Liver function tests	Y. Vitamin D
M. Parathyroid hormone	Z. X-ray chest

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……

If you make a mistake, place a cross though the circle you want to remove, like this: ……

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Case 7

Bert Smith, aged 55 years, reports a 24-hour history of worsening left knee swelling and pain associated with nausea and lethargy. Four days ago, he presented reporting similar symptoms and was diagnosed with gout. He was advised to take indomethacin 50 mg four times daily and he had fluid aspirated from his left knee. He says his symptoms initially improved, but they have worsened over the past 24 hours.

Bert has a past medical history of psoriasis, hypertension and gastroesophageal reflux disease, for which he takes secukinumab 150 mg subcutaneously monthly and quinapril/hydrochlorothiazide 10 mg/12.5 mg daily. He does not smoke and has one standard drink of alcohol most nights.

On examination Bert looks well, but he is uncomfortable and walks with a limp. His temperature is 37.9°C, blood pressure 165/90 mmHg, heart rate 105/min regular, respiratory rate 15/min, oxygen saturation 96% on room air and body mass index 26.6 kg/m^2. Musculoskeletal examination reveals his left knee to be swollen and red.

Microscopy/culture body fluid – preliminary results

Body site:	Left knee
Macroscopic appearance:	10 mL slightly bloodstained fluid

Cell count	**Result**	**Normal range**
Total leucocytes	**36,300 10E^6/L***	<250
Total erythrocytes	**20,000 10E^6/L***	<4000
Polymorphs	**1800 10E^6/L***	-
Mononuclear cells	**4500 10E^6/L***	-
Crystals	Moderate	-
Gram stain and culture	*Pending*	-

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Question 7.1

What are the most likely differential diagnoses to account for Bert's presentation? Write **two (2)** specific diagnoses.

1. ……

2. ……

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Question 7.2

Bert is managed appropriately.

Two months later, Bert returns reporting two further episodes of his left knee symptoms, for which he has used indomethacin 50 mg four times daily as needed.

On examination, Bert looks well. His temperature is 36.7°C, blood pressure 154/84 mmHg, heart rate 85/min regular, respiratory rate 12/min, oxygen saturation 98% on room air and body mass index 26.6 kg/m^2.

What additional investigations are appropriate? Select **six (6)** investigations from the following list.

A. Anticyclic citrullinated antibody	N. Rheumatoid factor
B. Anti-double-stranded deoxyribonucleic acid antibody	O. Serum calcium
C. Antinuclear antibodies	P. Serum folate
D. C-reactive protein	Q. Serum magnesium
E. CT scan left knee	R. Serum parathyroid hormone
F. Extractable nuclear antigens	S. Serum phosphate
G. Fasting glucose	T. Serum urate
H. Fasting lipids	U. Thyroid function tests
I. Full blood count	V. Ultrasound left knee
J. Iron studies	W. Urea and electrolytes
K. Liver function tests	X. X-ray left knee
L. MRI left knee	Y. Vitamin B12
M. Prostate-specific antigen	Z. Vitamin D

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……●

If you make a mistake, place a cross though the circle you want to remove, like this: ……⊗

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

○ ○

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Question 7.3

Additional investigations confirm the single most likely underlying diagnosis.

What pharmacological management actions are appropriate? Write **three (3)** specific pharmacological management actions. Specific dosages are not required.

1. ……

2. ……

3. ……

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Case 8

Melanie Marks, aged 23 years, reports an eight-month history of recurrent headaches. The headaches usually start behind both eyes and gradually progress in intensity, worsening towards the end of the day. Over the past month, the headaches have been occurring daily and can last all day.

Four months ago, Melanie was prescribed sumatriptan 100 mg to take at the onset of her headaches, to be repeated after two hours if the headache persisted. She says this has had little effect, so she has resorted to using it daily to try and prevent the headaches. Two months ago, she saw a different general practitioner and was prescribed paracetamol/codeine 500/30 mg two tablets every four hours as needed to take in addition to the sumatriptan. She has needed to use this 4–5 days per week for her headaches.

Melanie has no significant past medical history, takes no regular medications and has no known allergies. She does not smoke, has two standard drinks of alcohol one night per week and does not use recreational drugs. Twelve months ago, she was promoted to a new role at work and says this has been very stressful, with increased travel and long workdays.

On examination, Melanie looks well. Her temperature is 37.3°C, blood pressure 120/75 mmHg, heart rate 81/min regular, respiratory rate 14/min, oxygen saturation 99% on room air and body mass index 21.1 kg/m^2. The remainder of her examination is normal.

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Question 8.1

What are the most likely differential diagnoses? Write **two (2)** specific diagnoses.

1. ……

2. ……

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Question 8.2

What pharmacological management options are appropriate? Write **two (2)** specific pharmacological management options (dosing is not required).

1. ……

2. ……

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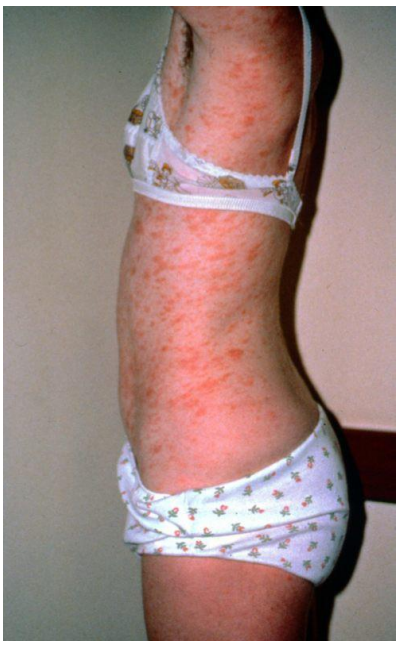
Question 8.3

Melanie is managed appropriately, and her headaches resolve.

Six months later, Melanie returns reporting a three-day history of a mildly itchy spreading rash. She first noticed it after a shower, and it was only on her chest and back. It has now spread and extends down both of her arms and legs. She has been otherwise well recently.

On examination, Melanie looks well. Her temperature is 36.6°C, blood pressure 118/81 mmHg, heart rate 69/min regular, respiratory rate 12/min, oxygen saturation 98% on room air and body mass index 21.1 kg/m^2. You note the appearance of the rash (see image).

Apart from the use of emollient, what non-pharmacological management advice is appropriate? Write **one (1)** specific piece of non-pharmacological management advice.



1. ……

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Case 9

Patricia Barnes, aged 72 years, presents for the results of investigations ordered three days ago when she requested antibiotics for a recurrent urinary tract infection. She reports a 12-month history of progressively worsening symptoms, with this being the sixth urinary tract infection she has had this year. She is frustrated that her symptoms do not improve with antibiotics. She needs to go to the toilet in a hurry nearly every hour, day and night. She is embarrassed that if she does not make it to the toilet in time, she will wet herself. She denies burning when she passes urine and has not noted any blood in her urine.

Patricia has a past medical history of hypertension, for which she takes perindopril 8 mg daily and amlodipine 5 mg daily. She has no known allergies. She does not smoke or drink alcohol.

On examination, Patricia looks well. Her temperature is 37.1°C, blood pressure 129/83 mmHg, heart rate 87/min regular, respiratory rate 12/min, oxygen saturation 97% on room air and body mass index 24.1kg/m^2.

The results of Patricia's investigations are shown below.

Urine for microscopy, culture and sensitivities: Normal

Ultrasound of kidneys, ureters and bladder:

- Kidneys, ureters and bladder appear normal.
- Pre-void bladder volume is 100 mL with 10 mL post-void residual.
- No other abnormalities detected.

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Bladder diary

Day	Time	Volume urine passed (mL)	Urgency (1–10, where 10 is severe urge)	Leakage episodes	Fluid intake (mL)	Bowel motion	Notes
Day 1	7.00am	100	9		Tea 150		
	8.33am	80	7		Tea 150		
	10.45am	110	10	Moderate	Tea 150		
	1.05pm	100	8				
	2.15pm	70	10	Moderate	Tea 150		
	5.25pm	40	10	Small	Coffee 200		Out at shops
	6.05pm	100	10				
	7.15pm	80	9		Wine 2 × 125		
	9.20pm	60	4		Tea 150		
Day 2	1.45am	100	10	Moderate			
	5.30am	110	10				
Total (mL)		**950**			**1200**		

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Question 9.1

What is the single most likely diagnosis to account for Patricia's presentation? Write **one (1)** specific diagnosis.

1. .....

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Question 9.2

What additional examination findings would suggest another underlying diagnosis for Patricia's presentation? Write **three (3)** specific examination findings.

1. ……

2. ……

3. ……

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Question 9.3

Additional examination is unremarkable.

What non-pharmacological management options are appropriate? Write **three (3)** specific non-pharmacological management options.

1. ……

2. ……

3. ……

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Case 10

Lara Milner, aged 27 years, returns for the results of her cervical screening test performed one week ago. She has been well recently.

Lara has a past medical history of infrequent intermittent asthma, for which she takes salbutamol 100 µg/dose six inhalations every four hours as needed. She has no known allergies. She uses condoms for contraception. Her periods are regular, occurring every 29 days, and last for five days. Her last Pap smear was at age 21 years. She smokes five cigarettes per day, which she has done for the past 10 years, and has two standard drinks of alcohol most nights. She has a family medical history of melanoma and asthma in her mother and ischaemic heart disease in her father and paternal grandfather. She works as a receptionist and lives with her male partner.

On examination, Lara looks well. Her temperature is 36.5°C, blood pressure 115/71 mmHg, heart rate 68/min regular, respiratory rate 13/min, oxygen saturation 99% on room air and body mass index 22.5 kg/m^2. The remainder of her examination is normal.

The results of Lara's cervical screening test are shown below.

Cervical screening test

Human papillomavirus 16:	Not detected
Human papillomavirus 18:	Not detected
Other human papillomavirus:	**Detected***
Liquid-based cytology reading:	Manually read
Reason for test:	Reflex on primary test human papillomavirus
Result:	Low-grade squamous intraepithelial lesion
Microscopy:	Abnormal squamous cells are evident indicative of cervical intraepithelial neoplasia grade I and human papillomavirus.

BARCODE123456

Question 10.1

What management action is appropriate? Write **one (1)** specific management action.

1. ……

BARCODE123456

Question 10.2

Lara is managed appropriately.

Twelve months later, Lara returns reporting two episodes of light vaginal bleeding following sexual intercourse in the last month. Each bleeding episode lasted 6-12 hours.

On examination, Lara looks well. Her temperature is 36.9°C, blood pressure 117/82 mmHg, heart rate 71/min regular, respiratory rate 12/min, oxygen saturation 98% on room air and body mass index 22.5 kg/m^2.

What initial investigations are appropriate? Select **three (3)** investigations from the following list.

A. Blood film
B. Blood group and antibodies
C. Cervical co-test
D. Cervical screening test
E. Coagulation studies
F. CT scan abdomen
G. CT scan pelvis
H. First-pass urine for chlamydia PCR
I. Full blood count
J. Herpes simplex virus serology
K. High vaginal swab for herpes simplex PCR
L. High vaginal swab for microscopy, culture and sensitivities
M. HIV serology
N. Iron studies
O. Liver function tests
P. Rubella serology
Q. Serum beta-human chorionic gonadotropin
R. Serum calcium
S. Serum magnesium
T. Serum phosphate
U. Syphilis serology
V. Thyroid function tests
W. Ultrasound abdomen
X. Ultrasound pelvis
Y. Urea and electrolytes
Z. Urine for microscopy, culture and sensitivities

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……●

If you make a mistake, place a cross though the circle you want to remove, like this: ……⊗

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BARCODE123456

Question 10.3

Lara’s investigation results are all normal and her symptoms resolve.

Three months later, Lara returns reporting that a condom broke during sexual intercourse five days ago. The first day of her last menstrual period was 11 days ago. She worries that she might be pregnant.

What pharmacological contraceptive option is appropriate to offer to Lara? Write **one (1)** specific pharmacological option (dosing is not required). Brand names are acceptable.

1. ……

BARCODE123456

Case 11

Pamela Delaney, aged 63 years, returns for the result of investigations ordered five days ago when she reported a three-month history of poor sleep, low energy, irritability and an unintentional weight gain of 5 kg. She is enjoying her usual activities.

Pamela has a past medical history of asthma, coeliac disease and osteopaenia, for which she takes budesonide/eformoterol 200/6 µg two inhalations twice daily, ferrous sulphate 325 mg daily, calcium carbonate 600 mg two tablets daily and vitamin D 1000 international units daily. She does not smoke and has one standard drink of alcohol three nights per week. She consumes a vegetarian diet. She works full time as a teacher at the local primary school. She has a family medical history of thyroid disease in her mother and sister and prostate cancer in her father.

On examination, Pamela appears well, although tired. She is neatly dressed and has a reactive affect.

Her temperature is 36.5°C, blood pressure 141/91 mmHg, heart rate 78/min regular, respiratory rate 14/min, oxygen saturation 97% on room air and body mass index 24.2 kg/m^2. The remainder of her examination is normal.

Pamela's investigation results are shown below.

Full blood count: Normal

Urea and electrolytes: Normal

Liver functions tests: Normal

Iron studies: Normal

Vitamin B12: Normal

Fasting blood glucose: Normal

Erythrocyte sedimentation rate: Normal

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Thyroid Function Tests

Test	Result	Normal range
Thyroid-stimulating hormone	**11.6 mIU/L***	0.4–4.0

Fasting lipids

Test	Result	Normal range
Total cholesterol	**5.8 mmol/L***	<5.6
High-density lipoprotein cholesterol	1.9 mmol/L	>1.0
Low-density lipoprotein cholesterol	**3.0 mmol/L***	<2.5
Triglycerides	**2.1 mmol/L***	<1.5
Non-high-density lipoprotein cholesterol	3.9 mmol/L	<4.6
Low-density lipoprotein/high-density	1.6 mmol/L	<3.7
Cholesterol/high-density lipoprotein ratio	3.1 mmol/L	<4.5

BARCODE123456

Question 11.1

What is the single most likely underlying diagnosis to account for Pamela's presentation? Write **one (1)** specific diagnosis.

1. ……

BARCODE123456

Question 11.2

What additional investigations would help to confirm the single most likely underlying diagnosis?

Select **two (2)** investigations from the following list.

A. Adrenocorticotropic hormone	N. Insulin-like growth factor-1
B. Antidiuretic hormone	O. Luteinising hormone
C. Anti-thyroglobulin antibody	P. Oestradiol
D. Anti-thyroid peroxidase antibody	Q. Parathyroid hormone
E. Blood film	R. Progesterone
F. Bone densitometry	S. Prolactin
G. Bone scintigraphy	T. Reverse triiodothyronine
H. C-reactive protein	U. Serum calcium
I. Coeliac serology	V. Serum iodine
J. Follicle-stimulating hormone	W. Thyroid scintigraphy
K. Free thyroxine	X. Thyroid-stimulating hormone receptor antibody
L. Free triiodothyronine	Y. Ultrasound thyroid
M. HbA1c	Z. Vitamin D

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……

If you make a mistake, place a cross though the circle you want to remove, like this: ……

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Question 11.3

Additional investigations confirm the single most likely underlying diagnosis and Pamela is commenced on appropriate pharmacological management.

Six weeks later, Pamela returns reporting ongoing symptoms despite her compliance with your pharmacological management. Her investigation results remain unchanged.

What factors might be contributing to the persistently abnormal investigation results? Write **two (2)** specific factors.

1. ……

2. ……

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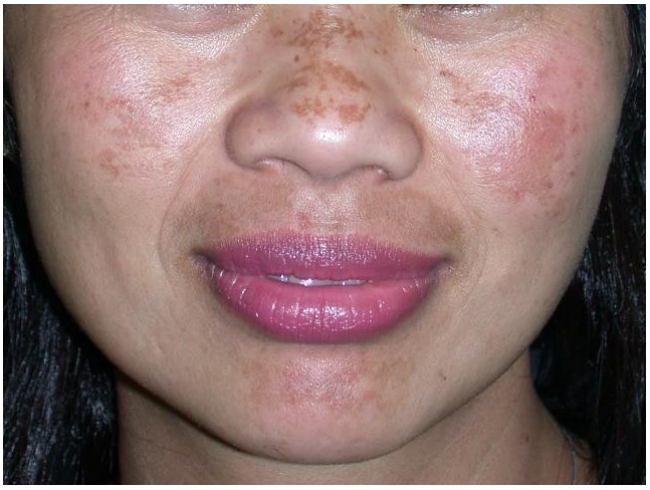
Case 12

Sasha Feegan, aged 34 years, reports a five-day history of several painless dark patches on her forehead, cheeks and chin. They appeared after she spent the past weekend watching cricket. She has been otherwise well recently.

Sasha has no significant past medical history, takes ethinylestradiol/levonorgestrel 30/150 µg daily for contraception and has no known allergies. She does not smoke and has two standard drinks of alcohol three nights per week. She works as a beauty therapist.

On examination, Sasha looks well. Her temperature is 36.5°C, blood pressure 118/72 mmHg, heart rate 71/min regular, respiratory rate 12/min, oxygen saturation 99% on room air and body mass index 22.5 kg/m^2. You note the appearance of her face (see image).



BARCODE123456

Question 12.1

What is the single most likely diagnosis? Write **one (1)** specific diagnosis.

1. ……

BARCODE123456

Question 12.2

What additional aspects of history would support the single most likely diagnosis? Write **five (5)** specific aspects of history.

1. ……

2. ……

3. ……

4. ……

5. ……

BARCODE123456

Question 12.3

What topical or oral pharmacological management options are appropriate? Write **three (3)** specific pharmacological management options (dosing is not required).

1. ……

2. ……

3. ……

BARCODE123456

Case 13

Kane Moore, aged 37 years, is an Aboriginal man who reports a six-week history of fatigue, weight gain and difficulty going back to sleep after waking 3–4 times each night to urinate. He requests a script for a 'sleeping tablet'.

Kane has a past medical history of bipolar 1 disorder, diagnosed 20 years ago, for which he takes sertraline 50 mg daily and olanzapine 20 mg daily. He has no known allergies. He smokes 10 cigarettes per day, which he has done for the past 25 years, and has one standard drink of alcohol one night per week. He has recently been prescribed varenicline 0.5 mg twice daily to assist with smoking cessation.

On examination, Kane looks well, although tired. His temperature is 37.1°C, blood pressure 155/80 mmHg, heart rate 65/min regular, respiratory rate 14/min, oxygen saturation 97% on room air and body mass index 35.2 kg/m^2.

BARCODE123456

Question 13.1

What is the single most likely diagnosis to account for Kane's presentation? Write **one (1)** specific diagnosis.

1. ……

BARCODE123456

Question 13.2

What initial investigations are appropriate?

Select **six (6)** investigations from the following list.

A. 24-hour urine protein	N. Prostate-specific antigen
B. Antidiuretic hormone	O. Serum aldosterone
C. C-reactive protein	P. Serum calcium
D. Echocardiogram	Q. Serum folate
E. Electrocardiogram	R. Serum magnesium
F. Erythrocyte sedimentation rate	S. Serum phosphate
G. Fasting blood glucose	T. Serum renin
H. Fasting lipids	U. Thyroid function tests
I. Full blood count	V. Urea and electrolytes
J. Iron studies	W. Urinary catecholamines
K. Liver function tests	X. Urine osmolality
L. Parathyroid hormone	Y. Vitamin B12
M. Prolactin	Z. Vitamin D

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……●

If you make a mistake, place a cross though the circle you want to remove, like this: ……⊗

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Question 13.3

Twelve months later, Kane returns for a pre-employment medical prior to commencing work at the local heavy machinery operations yard.

On examination, Kane looks well. His temperature is 36.8°C, blood pressure 151/84 mmHg, heart rate 71/min regular, respiratory rate 11/min, oxygen saturation 96% on room air and body mass index 35.2 kg/m^2.

Kane's urinalysis results are shown below.

Urinalysis

Test	Result	Normal range
Glucose	Negative	<5.5
Bilirubin	Negative	Negative
Ketones	Negative	<0.5 mmol/L
Specific gravity	1.01	1.005–1.030
Blood	**Positive +***	<5 erythrocytes/mL
pH	4.5	4.5–8.0
Protein	**Positive ++***	<0.15 g/L
Urobilinogen	Normal	<17 mmol/L
Nitrites	Negative	Negative
Leucocytes	Negative	<15 leucocytes/mL

What initial investigations are appropriate in determining the cause of Kane's urinalysis results?

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Select **four (4)** investigations from the following list.

A. C-reactive protein
B. Coagulation studies
C. CT scan abdomen
D. CT scan chest
E. Erythrocyte sedimentation rate
F. Full blood count
G. Iron studies
H. Liver function tests
I. Parathyroid hormone
J. Prostate-specific antigen
K. Serum calcium
L. Serum electrophoresis
M. Serum folate
N. Serum magnesium
O. Serum phosphate
P. Thyroid function tests
Q. Ultrasound abdomen
R. Ultrasound kidneys, ureters and bladder
S. Ultrasound renal artery doppler
T. Urea and electrolytes
U. Urine albumin/creatinine ratio
V. Urine Bence Jones protein
W. Urine electrophoresis
X. Urine for microscopy, culture and sensitivities
Y. Vitamin B12
Z. Vitamin D

ANSWER INSTRUCTIONS

Shade inside the circles that correspond to your choice using a black pen, like this: ……
If you make a mistake, place a cross though the circle you want to remove, like this: ……

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