



**QI&CPD**  
Accredited Activity  
CATEGORY 2

Questions for this month's clinical challenge are based on articles in this issue. The clinical challenge is endorsed by the RACGP Quality Improvement and Continuing Professional Development (QI&CPD) program and has been allocated four Category 2 points (Activity ID: 95876). Answers to this clinical challenge are available immediately following successful completion online at <http://gplearning.racgp.org.au>. Clinical challenge quizzes may be completed at any time throughout the 2017–19 triennium; therefore, the previous months' answers are not published.

Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the most appropriate statement as your answer.



# Clinical challenge

## Case 1

Alex is a previously well man, 24 years of age, who presents with two weeks of an extremely itchy rash, mainly affecting his hands, wrists, buttocks and feet. Alex is currently living in an old warehouse with a group of other men and women who are homeless. You suspect he might have scabies.

### Question 1

**Skin contact with which one of the following from Alex's environment is the most likely source of his infection?**

- A. A dog
- B. Dust
- C. Another person
- D. A cat

### Question 2

**Which one of the following is a common secondary infection that Alex is at risk of?**

- A. Human immunodeficiency virus (HIV)
- B. Group B *Streptococcus*
- C. Group A *Streptococcus*
- D. Human T-lymphotropic virus 1 (HTLV-1)

### Question 3

**Which one of the following methods is most commonly sufficient to make the diagnosis?**

- A. History and examination
- B. Dermatoscopy looking for 'delta signs'
- C. Applying pen ink over a burrow track
- D. Obtaining a skin scraping to send for microscopy

## Question 4

**Which one of the following treatments is the most appropriate for Alex?**

- A. Permethrin 5% cream
- B. Ivermectin tablets
- C. Benzyl benzoate 25%
- D. Trimethoprim-sulfamethoxazole tablets

## Case 2

Siobhan, 72 years of age, who is otherwise well, presents for a skin check. You notice three lesions of particular concern. The first is a pink, scaly, thickened lesion approximately 8 mm x 6 mm on her upper chest. You suspect the first lesion could be a squamous cell carcinoma (SCC). The second is a very irregular pigmented lesion on her left shoulder, 9 mm x 10 mm, which you suspect could be a melanoma. The third is a 3 mm x 3 mm nodular lesion with a thick keratotic central plug that has appeared rapidly on her right forearm, which you think could be a keratoacanthoma or SCC.

## Question 5

**Which one of the following biopsy procedures would be the most appropriate to confirm the diagnosis of the first lesion?**

- A. Punch of the edge of the lesion
- B. Punch of the centre of the lesion
- C. Shave of the edge of the lesion
- D. Shave of the centre of the lesion

## Question 6

**Which one of the following biopsy procedures is the most appropriate to confirm the diagnosis of the second lesion?**

- A. Punch from the centre of the lesion
- B. Incisional
- C. Shave
- D. Elliptical excision

## Question 7

**Which one of the following biopsy procedures is the most appropriate to confirm the diagnosis of the third lesion?**

- A. Punch of the centre of the lesion
- B. Punch of the edge of the lesion
- C. Incisional
- D. Excisional

## Question 8

**Which one of the following aspects of the lesion is the most important to convey to the pathologist who will examine the biopsied material?**

- A. Size
- B. Colour
- C. Shape
- D. Texture

## Case 3

Jenna, 38 years of age, presents with a viral flat wart on her left knee. She is an otherwise well. You decide to treat the wart with cryosurgery.

### Question 9

Which one of the following Fitzpatrick skin types would make Jenna most susceptible to post-inflammatory hypopigmentation?

- A. I
- B. II
- C. III
- D. IX

### Question 10

Which one of the following is the most appropriate duration and number of freeze–thaw cycles (FTC) required to treat Jenna's wart using cryosurgery?

- A. 3 seconds x 2 FTC
- B. 5 seconds x 1 FTC
- C. 7 seconds x 1 FTC
- D. 10 seconds x 1 FTC

### Question 11

Which one of the following is the most appropriate interval between cryosurgery treatments for Jenna's wart?

- A. 2 days
- B. 2 weeks
- C. 2 months
- D. 6 months

### Question 12

Which one of the following should Jenna be told is a reaction normally expected following treatment?

- A. Infection
- B. Pyogenic granuloma formation
- C. Hypertrophic scar formation
- D. The formation of a shallow eschar

### Case 4

Antonella, 25 years of age, presents with a slowly enlarging 3 cm diameter annular pink plaque on her right elbow. She has a past history of autoimmune thyroiditis and takes daily thyroxine. Her partner has recently been treated for ringworm, and her father has psoriasis. Antonella has been using hydrocortisone cream, which has slightly reduced the size and redness of the lesion. Your differential diagnoses are granuloma annulare, ringworm and psoriasis.

### Question 13

Which one of the following biopsy techniques is the most appropriate for Antonella's lesions?

- A. Incisional
- B. Punch from the edge of the lesion
- C. Punch from the centre of the lesion
- D. Shave

### Question 14

Which one of the following suggestions should be provided to the pathologist on the request form regarding the sectioning of Antonella's biopsy specimen?

- A. Do not section the specimen
- B. Section the specimen longitudinally
- C. Section the specimen transversely
- D. Section the specimen after soaking it in hypertonic saline

### Question 15

Which one of the following pieces of clinical information would be most helpful for the pathologist who will examine the lesion?

- A. Her most recent thyroid function test results
- B. The brand of hydrocortisone cream she is using
- C. Your differential diagnoses
- D. The type of local anaesthetic you used to take the biopsy

### Question 16

Which one of the following steps would be most appropriate to take before taking a biopsy of Antonella's lesion?

- A. Cease her thyroxine for one month
- B. Trial of topical anti fungal creams for one month
- C. Cease her hydrocortisone cream for at least one month
- D. Warn her that you will need to sample of about 2 cm of normal surrounding skin

### Case 5

Jennifer, 54 years of age, presents with three months of a rash on her face. She has small inflammatory papules and pustules, and numerous scattered

telangectasia on her nose, cheeks and forehead. She is fair-skinned, and has always been prone to red skin on these parts of her face, in addition to easy flushing.

### Question 17

Which one of the following features is required for Jennifer to have a diagnosis of rosacea?

- A. Persistent erythema of the central portion of the face lasting for at least three months
- B. Frequent facial flushing for at least three months
- C. Inflammatory papules and pustules present for at least three months
- D. Hyperplasia of the connective tissue

### Question 18

Which one of the following subtypes of rosacea does Jennifer have?

- A. Erythrotelangiectatic
- B. Papulopustular
- C. Phymatous
- D. Ocular

### Question 19

Which one of the following general measures would you advise Jennifer to take to manage her rosacea?

- A. An alkaline skin cleansing routine
- B. A daily exfoliating scrub
- C. Daily midday sun exposure
- D. A non-alkaline moisturiser

### Question 20

Which one of the following is a first-line treatment you could offer Jennifer?

- A. Pulsed dye laser therapy
- B. Topical metronidazole
- C. Oral metronidazole
- D. Mid-dose isotretinoin