



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 4 Category 2 points (Activity ID:17351). 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 2014–16 triennium; therefore, the previous months answers are not published.

Single completion items



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

Case 1 – Catriona

Catriona, 26 years of age, is from Ireland and is currently holidaying in Cairns. About 20 minutes ago, while snorkelling in shallow water off the coast, she felt severe stinging pain across her abdomen and legs. She called to her friend, Deirdre (also 26 years of age and from Ireland), for assistance. On her way out to help Catriona, Deirdre stepped on a small fish and now has a painful left foot. They have walked straight to your small GP clinic just across the road from the beach.

Catriona has several raised erythematous linear streaks diagonally across her abdomen, back and several similar marks along both of her legs (*Figure 1*). You can see tentacles attached to her skin overlying the marks on her legs.



Figure 1. Appearance of marks on Catriona's back

Question 1

Which one of the following clinical features most strongly suggests that Catriona has been stung by a *Chironex fleckeri* jellyfish?

- A. Severe local pain
- B. A blood pressure of 180/100 mmHg
- C. Severe generalised pain
- D. The appearance of the stings
- E. A blood pressure of 70/40 mmHg

Question 2

You suspect Catriona has been stung by *C. fleckeri*. Which one of the following is the most important initial management step for Catriona?

- A. Leaving the tentacles in place
- B. Immersion in hot water
- C. Resuscitation measures
- D. Application of vinegar for pain
- E. Oral benzodiazepines

Further information

A colleague comes in to assist you with Catriona. After implementing appropriate management, you turn your attention to Deirdre as she is very distressed with pain. She has two small puncture wounds on her left heel. There is minimal bleeding. Her reported pain level seems to be disproportionately high, compared with the size of the wound.

Question 3

Which one of the following is the most likely explanation for Deirdre's severe pain?

- A. Contamination of the wound with marine bacteria
- B. Psychological distress
- C. Envenomation from the spines of the fish
- D. The location of the wound
- E. Retained spines from the fish

Question 4

Which one of the following is the most appropriate initial management for Deirdre's wound?

- A. Ice water immersion
- B. Irrigation and cleaning

- C. An oral antihistamine
- D. Pressure bandage immobilisation
- E. Application of vinegar

Case 2 – Jim

Jim, 32 years of age, has just returned from a holiday in Bali. For the past 2 days he has had 2–3-hourly episodes of watery diarrhoea associated with abdominal cramps, three episodes of vomiting and a low-grade fever. You suspect he has travellers' diarrhoea (TD).

Question 5

How would you classify Jim's symptoms?

- A. Mild
- B. Moderate
- C. Severe
- D. Chronic
- E. Not possible to classify it as there is too little information

Question 6

Which one of the following is the most likely causative organism?

- A. *Norovirus*
- B. *Shigella*
- C. Enteroinvasive *Escherichia coli*
- D. *Vibrio cholera*
- E. Enterotoxigenic *E. coli*

Question 7

Jim is planning a trip to Thailand in a few months for 5 weeks. He is wondering what he can do to prevent getting diarrhoea again. According to evidence, which one of the following interventions is effective at preventing TD?

- A. Dietary precautions
- B. Cholera vaccination
- C. Probiotics
- D. Prophylactic norfloxacin
- E. Bovine colostrum from cows immunised against enterotoxigenic *E. coli*

Question 8

Jim would like to know if there is medication that he can take to resolve his symptoms faster if he does develop TD again. Which one of the following options is the most appropriate medication regimen?

- A. Amoxycillin and cotrimoxazole 12-hourly for 3 days
- B. Ciprofloxacin 1000 mg stat plus loperamide 4 mg stat
- C. Norfloxacin 400 mg 6-hourly for 3 days
- D. Azithromycin 500 mg stat plus loperamide 4 mg stat
- E. Azithromycin 1000 mg 12-hourly for 3 days

Case 3 – Anisha

Anisha, aged 34 years old and previously well, has come to see you today for some scripts prior to travelling. She tells you she is going to Thailand for a breast augmentation procedure followed by a holiday there. She explains that she is unable to afford to have the procedure in Australia, but found a facility offering the procedure for a much cheaper price in Thailand. Two of her friends went to the same facility recently and were very happy with their overall experience.

Question 9

Which one of the following pieces of information would be most appropriate to provide to Anisha regarding her trip?

- A. She should bring her Medicare card as complications of her procedure occurring in Thailand will be covered by Medicare under a reciprocal agreement.
- B. If she has a private health insurance policy, this will not cover procedures performed overseas.
- C. She should check her travel insurance policy as they will not usually cover medical expenses arising as a result of elective procedures performed overseas.
- D. She should cancel her procedure as there is no way of ascertaining the quality of hospitals overseas.
- E. In the event of an adverse outcome from her surgery, she would be protected by the Australian laws regarding medical malpractice.

Question 10

What general health recommendations would you make to Anisha regarding her travel?

- A. She should consider hepatitis B vaccination if she has not previously been immunized.

- B. She should start deep vein thrombosis prophylaxis as she has a higher risk of developing this.
- C. She should have swabs before and after leaving to assess her host antimicrobial resistance profile.
- D. She should take antiretroviral medication to reduce the risk of human immunodeficiency virus transmission during surgery.

Case 4 – Conor

You are working in a rural general practice in a town that has experienced 4 days in a row of temperatures exceeding 40°C. Conor, 15 years of age, is brought to see you by his father. Conor has a fair complexion and spent most of the previous day in the local swimming pool. He forgot to apply sunscreen to his feet. The dorsal surface of each foot is now sunburnt and painful. There are no blisters and the skin is still intact.

Question 11

Which one of the following is the most appropriate management for Conor's sunburn?

- A. Referral to hospital as his risk of fluid loss is significant
- B. Ibuprofen as required
- C. A stat dose of prednisolone
- D. A stat dose of loratadine
- E. Topical anaesthetic cream

Further information

Conor has also developed an itchy rash in both groin flexures over the past week (Figure 2).



Figure 2. Conor's rash
 Reproduced with permission from DermnetNZ from Miliaria.
 Available at <http://dermnetnz.org/hair-nails-sweat/miliaria.html>.

Question 12

Which one of the following management options is the most appropriate for Conor?

- A. An occlusive dressing
- B. Twice daily application of an emollient
- C. A warm bath
- D. Biopsy of the rash
- E. Keeping the rash dry and open to air

Case 5 – Lynda

Your next patient today, Lynda, is 84 years of age and lives alone. Lynda has chronic renal impairment due to type 2 diabetes. She has been brought in by her neighbor, who had not seen her for 3 days. The neighbour found Lynda lying on the couch in her living room, which was not air-conditioned. On examination, Lynda is drowsy and confused. Her temperature is 41.8°C, her heart rate is 98 beats/minute and regular, and her blood pressure is 100/54 mmHg.

Question 13

What is the most likely diagnosis for Lynda?

- A. Classic heat stroke
- B. Exertional heat stroke
- C. Heat exhaustion
- D. Heat syncope

Question 14

Which one of the following options is the most appropriate management for Lynda?

- A. Paracetamol 1 g stat to bring her core temperature down.
- B. Get her neighbour to take her home and place her in a cool bath, then return for review in the afternoon.
- C. Urgent transfer to hospital.
- D. Take blood to check for evidence of liver function abnormality and coagulopathy and review her first thing in the morning.