



The Royal College of **Pathologists**

Pathology: the science behind the cure

FRCPATH Immunology Part 2 practical examination

Station 6 - Vignettes

Two example questions are given, including the images that would have been provided on a laptop as Supplementary Material, followed by the answers.

Example question 1

Your laboratory is asked for advice about a 16 year old boy scout who has had an episode of rapid onset urticaria and hypotension, requiring adrenaline, antihistamines and fluid resuscitation. There was no immediate precipitating event: at onset of symptoms, the boy was resting by the campfire and had not taken any food in the previous hour. At a barbecue 3-4 hours earlier, beefburgers and chicken breasts were consumed, along with tomatoes, lettuce, bread, mayonnaise and tomato ketchup. He is not on any medications.

Review the tryptase results in Figure 1 and then answer the questions below.

Figure 1: Tryptase results

A 16 year old boy admitted to A&E approximately 1h after incident

Time after reaction	Tryptase result (ng/L)	Reference range (ng/L)
1 hour	22.0	2-14
2 hours	16.0	2-14

- What is the most likely diagnosis suggested by these blood test results? (1 mark)
- What is the most likely cause and why? (3 marks)
- Which specific IgE test would be of particular interest here and why? (2 marks)
- The boy often hikes and camps with his scout group - how might this be relevant to the diagnosis? (1 mark)
- Give one example medication that should be avoided (1 mark)

Example question 2

Write an authorising comment for the following patient samples:

- a) A&E request, 62 year old lady with a rash and weight loss, myositis antibody panel shows a positive result for anti-TIF-1g antibodies (3 marks)
- b) Rheumatology request, 55 year old lady with myopathy, myositis antibody panel shows a positive result for anti-Ku antibodies (2 marks)
- c) GP request, 72 year old male patient with a rash on his hands and difficulty breathing, myositis antibody panel shows a positive result for anti-OJ antibodies (3 marks)

ANSWERS

Question 1

- a) Anaphylaxis / mast cell degranulation (1 mark)
- b) alpha-gal meat allergy (1 mark)
 - Delayed reaction seen in this condition (1 mark)
 - No apparent immediate trigger (1 mark)
- c) Alpha-gal3 (1 mark)
 - Associated with red meat allergy (1 mark)
- d) Prior Tick exposure providing opportunity for sensitisation (1 mark)
- e) Cetuximab / Gelatin-containing medicines e.g. plasma expanders (1 mark)

Question 2

- a) Anti TIF1-g antibodies are found in patients with dermatomyositis
 - Associated with malignancy
 - Refer to rheumatology / respiratory
- b) Anti-Ku antibodies have been reported in a wide spectrum of autoimmune diseases
 - including overlap syndromes with Systemic Sclerosis and myositis.
- c) Anti OJ antibody is found in Anti-synthetase syndrome
 - Associated with interstitial lung disease.
 - Suggest referral to rheumatologist