

Test yourself

MCQ and extended matching

The MCQ and extended matching section in *Surgery* is designed to test your knowledge of selected topics in this issue of the journal.

Adrian Ben Cresswell MD(Res) FRCS (Gen) Consultant HPB & General Surgeon, Hampshire Hospitals NHS Foundation Trust, Basingstoke, Hampshire, UK; Professor of Clinical Surgery, St George's University International Medical School; Clinical Editor, SURGERY

For questions 1–4, select the statements which are true and which are false. The correct answers are given below.

1 Appendicitis and non-specific abdominal pain in childhood

Regarding appendicitis and non-specific abdominal pain in childhood

- A In children younger than 16 years old, a sexual history should only be sought in the presence of a parent or guardian
- B Initial fluid resuscitation of the shocked child should be administered as a bolus of 20 ml/kg of crystalloid infusion
- C Intramuscular morphine is a good choice for initial analgesia in the shocked child
- D Physical signs of peritonitis are masked by the administration of opiate analgesia, which should not be administered until definitive surgical assessment has been performed
- E Most children with appendicitis under the age of 5 present with perforation of the appendix

2 The acute scrotum in childhood

Regarding the acute scrotum in childhood

- A Torsion of the testicle is twice as common as torsion of the testicular appendage
- B The most common time for presentation with testicular torsion is during puberty
- C The typical presentation of testicular torsion is with severe, unilateral pain, a 'high lie' and tenderness to palpation
- D Testicular torsion can be confidently excluded by duplex ultrasound scanning
- E The risk of contralateral torsion following a perinatal testicular torsion is minimal

3 Intussusception

Regarding intussusception

- A An intussusception involves the invagination of the intussusceptum into the more distal intussusceptum

- B Rotavirus vaccination carries an increased risk for intussusception for the first 7 days following administration
- C Intussusception following vaccination is an example of 'secondary intussusception'
- D Ultrasound carries a sensitivity and specificity of >90% for the diagnosis of intussusception
- E The presence of a pathological lead point is an indication for operative intervention rather than air enema for the management of intussusception

4 Foreskin and penile problems

Regarding foreskin and penile problems

- A Physiological phimosis that persists at 6 months is unlikely to resolve without intervention
- B Balanitis xerotica obliterans is a cause of penile cancer in childhood
- C Smegma cysts result from abnormalities of glans secretions
- D Circumcision can be legally performed in the UK without the need for medical qualification
- E Hypospadias is invariably associated with a meatal stenosis

5 Intravenous fluid and electrolyte management in children and young people

Theme: fluid and electrolyte management

- A 0.9% Saline
- B 0.45% Saline, 5% glucose
- C Hartmann's solution
- D 5% Glucose
- E 0.18% Saline, 10% glucose
- F 20% Glucose
- G 0.9% Saline, 0.15% KCl, 5% glucose
- H 0.9% Saline, 0.15% KCl

When considering commonly available crystalloid fluids, from the compositions listed below, select the single most likely preparation from the list above. Each option may be used only once, more than once or not at all.

see next page

Questions cont.

- 1 Na^+ 131 mmol/L, K^+ 4–5 mmol/L, Cl^- 111 mmol/L, 0 Kcal/L
- 2 Na^+ 0 mmol/L, K^+ 0 mmol/L, Cl^- 0 mmol/L, 800 Kcal/L
- 3 Na^+ 150 mmol/L, K^+ 0 mmol/L, 150 Cl^- mmol/L, 0 Kcal/L
- 4 Na^+ 75 mmol/L, K^+ 0 mmol/L, 75 Cl^- mmol/L, 200 Kcal/L
- 5 Na^+ 150 mmol/L, K^+ 20 mmol/L, Cl^- 170 mmol/L, 0 Kcal/L
- 6 Na^+ 0 mmol/L, K^+ 0 mmol/L, Cl^- 0 mmol/L, 200 Kcal/L
- 7 Na^+ 30 mmol/L, K^+ 0 mmol/L, Cl^- 30 mmol/L, 400 Kcal/L
- 8 Na^+ 150 mmol/L, K^+ 20 mmol/L, Cl^- 170 mmol/L, 200 Kcal/L

Answers

1. B,E
2. B,C,E
3. B,D,E
4. D
5. 1C, 2F, 3A, 4B, 5H, 6D, 7E, 8G

Answers to incorrect statements

Question 1

- A** A sexual history should only be sought when appropriate, but this may be more tactfully and successfully

done in the absence of a parent (but with a nurse chaperone)

- C** Intramuscular morphine is not reliably absorbed in the shocked child
- D** Opiate analgesia does not mask the physical signs of peritonism and analgesia should not be withheld pending assessment

Question 2

- A** Torsion of the testicular appendage is a more frequent finding than torsion of the testicle itself
- D** Testicular blood flow is difficult to fully assess on ultrasound and partial occlusions may not be identified. In cases of doubt, the testicle should be explored surgically

Question 3

- A** An intussusception involves the invagination of the intussusceptum into the more distal intussusceptum
- C** Secondary intussusception occurs when there is a pathological 'lead point' within the bowel wall

Question 4

- A** Physiological phimosis is present in 90% of males at 6 months of age, 50% at 2 years and 10% at 5 years
- B** Balanitis xerotica obliterans is considered a premalignant condition in adults, but there have not been any cases of malignancy described in childhood
- C** Smegma cysts result from the pattern of normal physiological separation of the prepuce from the glans
- E** Hypospadias is associated with meatal abnormality, but this may range from meatal stenosis to megameatus