

FExNet 2026

Collated SAQs: General Surgery

QUESTION BOOKLET

22 short-answer questions covering the ACEM Fellowship general surgical emergency curriculum — biliary disease (cholangitis with Tokyo grading, cholecystitis, choledocholithiasis), acute pancreatitis (Glasgow and BISAP severity scoring), bowel obstruction, sigmoid volvulus, perforated peptic ulcer, mesenteric ischaemia, GI haemorrhage (upper, lower, variceal), ruptured AAA, hernias, anorectal pathology, post-operative complications, IBD with toxic megacolon, post-cholecystectomy complications, atypical appendicitis. Stems are written in detailed prose with abbreviations spelt out in full.

22 questions • 225 marks

ACEM-aligned format. Sub-questions labelled a) b) c). Mark allocations indicative; references cited in the Answer Booklet. Question and answer indexes are clickable.

Question Index

Click any entry to jump to its question. Marks shown right.

Q1. Acute Cholangitis — Tokyo Criteria	12	Q12. Strangulated Inguinal Hernia	9
Q2. Acute Cholecystitis	10	Q13. Anorectal Abscess	9
Q3. Acute Pancreatitis — Severity Assessment	12	Q14. Toxic Megacolon (Inflammatory Bowel Disease)	11
Q4. Small Bowel Obstruction — Strangulation Features	11	Q15. Post-Operative Complications	10
Q5. Sigmoid Volvulus	10	Q16. Acute Appendicitis in Pregnancy	11
Q6. Perforated Peptic Ulcer	11	Q17. Pneumoperitoneum — Causes and Investigation	9
Q7. Upper Gastrointestinal Haemorrhage	12	Q18. Severity Scoring in Acute Pancreatitis	9
Q8. Acute Lower Gastrointestinal Haemorrhage	10	Q19. Chronic Mesenteric Ischaemia (Intestinal Angina)	9
Q9. Ruptured Abdominal Aortic Aneurysm — Operative Pathway	11	Q20. Rectal Foreign Body	9
Q10. Acute Diverticulitis	11	Q21. Tokyo Severity Grading for Cholangitis	9
Q11. Acute Mesenteric Ischaemia — Aetiology and Treatment	11	Q22. Post-Cholecystectomy Complications	9

Question 1 | Acute Cholangitis — Tokyo Criteria (12 marks)

A 72-year-old woman with a history of gallstones presents to your emergency department with right upper quadrant pain, fever with rigors, and jaundice for 2 days. On arrival, her vital signs are: heart rate 125 beats per minute, blood pressure 95/70 millimetres of mercury, respiratory rate 24 breaths per minute, peripheral oxygen saturation 99 percent on room air, temperature 39.2 degrees Celsius, Glasgow Coma Score 14. She has a known penicillin allergy producing a rash. Her bloods: white cell count 22, C-reactive protein 320, sodium 125, potassium 4.4, chloride 89, bicarbonate 14, urea 23.7, creatinine 219, albumin 22, total bilirubin 255 (conjugated 198), alkaline phosphatase 867, gamma GT 412, ALT 178, AST 153, lactate 4.2.

- a)** List Charcot's triad AND Reynolds pentad for acute cholangitis AND state which features are present in this patient. (4 marks)

- b)** List 4 immediate management priorities (drug, dose, end-points). (4 marks)

- c)** State the normal common bile duct diameter AND list 4 causes of extrahepatic biliary obstruction. (4 marks)

Question 2 | Acute Cholecystitis (10 marks)

A 27-year-old woman presents to your emergency department with constant right upper quadrant abdominal pain for 16 hours duration. She feels hot, generally unwell, and reports prior episodes of transient post-prandial RUQ pain. On arrival her vital signs: heart rate 112 beats per minute, blood pressure 135/86 millimetres of mercury, respiratory rate 21 breaths per minute, peripheral oxygen saturation 99 percent on room air, temperature 38.1 degrees Celsius. On examination she has significant right upper quadrant tenderness with positive Murphy's sign. White cell count 16, C-reactive protein 95, lipase 60 (normal), bilirubin 18 (normal), alkaline phosphatase 85 (normal).

a) List 4 features on abdominal ultrasound supporting acute cholecystitis. (4 marks)

b) State 4 management priorities for confirmed acute cholecystitis. (4 marks)

c) List 2 complications of untreated acute cholecystitis. (2 marks)

Question 3 | Acute Pancreatitis — Severity Assessment (12 marks)

A 54-year-old man with a history of heavy alcohol use presents to your emergency department with severe constant epigastric abdominal pain radiating to his back for 24 hours. He has vomited multiple times. On arrival, his vital signs: heart rate 120 beats per minute, blood pressure 95/55 millimetres of mercury, respiratory rate 26 breaths per minute, peripheral oxygen saturation 92 percent on room air, temperature 37.8 degrees Celsius. Examination: marked epigastric tenderness, mildly distended abdomen, absent bowel sounds. Blood results: white cell count 22, C-reactive protein 320, lipase 4500, amylase 1200, glucose 13, urea 14, creatinine 150, calcium 1.85, lactate 5, ALT 60, ALP 110, albumin 28, LDH 480.

- a)** Apply the Glasgow (Imrie) prognostic criteria for acute pancreatitis severity (PANCREAS mnemonic — list 5 of the 8 components). (5 marks)

- b)** State 4 immediate management priorities. (4 marks)

- c)** List 3 local complications of severe acute pancreatitis. (3 marks)

Question 4 | Small Bowel Obstruction — Strangulation Features (11 marks)

A 65-year-old woman presents to your emergency department with 3 days of intermittent colicky abdominal pain, distension, vomiting, and absolute constipation. She has had previous appendicectomy and a hysterectomy 10 years ago. Her vital signs: heart rate 105 beats per minute, blood pressure 115/75 millimetres of mercury, respiratory rate 22, peripheral oxygen saturation 98 percent, temperature 37.6 degrees Celsius. Examination: abdomen distended with tinkling bowel sounds, diffuse tenderness without peritonism. Plain abdominal radiograph shows multiple dilated loops of small bowel with air-fluid levels.

a) List 4 likely causes of small bowel obstruction. (4 marks)

b) List 4 features (clinical or imaging) that suggest strangulated / ischaemic bowel. (4 marks)

c) State 3 immediate management priorities. (3 marks)

Question 5 | Sigmoid Volvulus (10 marks)

A 78-year-old woman from a nursing home presents to your emergency department with generalised abdominal pain, distension, and vomiting for the past 24 hours. She has not passed flatus or stool for 48 hours. She has a history of chronic constipation. Her vital signs: heart rate 90 beats per minute, blood pressure 165/82 millimetres of mercury, respiratory rate 20, peripheral oxygen saturation 96 percent on room air, temperature 36.2 degrees Celsius, Glasgow Coma Score 14 (her baseline). Examination: marked abdominal distension with tympanic percussion. Abdominal radiograph shows a 'coffee bean' appearance of grossly dilated sigmoid colon ascending to the upper abdomen.

a) List 3 risk factors for sigmoid volvulus. (3 marks)

b) State 4 immediate management priorities. (4 marks)

c) List 3 features on plain abdominal radiograph supporting sigmoid volvulus. (3 marks)

Question 6 | Perforated Peptic Ulcer (11 marks)

A 55-year-old man presents to your emergency department with sudden-onset severe epigastric abdominal pain that started 4 hours ago while at work. The pain has progressively become generalised. He has a history of chronic epigastric pain and uses ibuprofen frequently. On arrival, his vital signs: heart rate 130 beats per minute, blood pressure 90/55 millimetres of mercury, respiratory rate 28 breaths per minute, peripheral oxygen saturation 96 percent on room air, temperature 38.0 degrees Celsius. Examination: he is lying still, with a 'board-like' rigid abdomen, generalised tenderness, absent bowel sounds, and percussion over the right upper quadrant reveals loss of liver dullness.

a) List 4 imaging features of pneumoperitoneum. (4 marks)

b) State 4 immediate management priorities. (4 marks)

c) List 3 risk factors for perforated peptic ulcer disease. (3 marks)

Question 7 | Upper Gastrointestinal Haemorrhage (12 marks)

A 62-year-old man with a history of chronic alcohol use and known cirrhosis (Child-Pugh B) presents to your emergency department after vomiting approximately 1 litre of fresh red blood 30 minutes ago. He has had two further episodes of haematemesis since arrival. His vital signs: heart rate 130 beats per minute, blood pressure 85/45 millimetres of mercury, respiratory rate 26, peripheral oxygen saturation 95 percent on room air, Glasgow Coma Score 14. He has stigmata of chronic liver disease (palmar erythema, spider naevi, splenomegaly). His haemoglobin is 75, INR 1.8, platelets 78, urea 18, creatinine 95.

a) List 4 immediate management priorities (drug, dose). (4 marks)

b) Calculate the Glasgow-Blatchford score components for this patient. (4 marks)

c) List 4 features distinguishing variceal from non-variceal upper GI bleeding. (4 marks)

Question 8 | Acute Lower Gastrointestinal Haemorrhage (10 marks)

A 78-year-old man presents to your emergency department with a 12-hour history of passing bright red blood per rectum. He has had approximately 6 episodes of large-volume haematochezia. He has a history of diverticulosis (on a recent colonoscopy) and atrial fibrillation (on apixaban 5 mg twice daily). His vital signs: heart rate 110 beats per minute, blood pressure 105/65 millimetres of mercury, respiratory rate 22, peripheral oxygen saturation 98 percent on room air, temperature 36.8 degrees Celsius. His haemoglobin is 78 (baseline 130 — fall of 52).

a) List 4 most likely causes of acute lower GI haemorrhage in this patient's age group. (4 marks)

b) State 4 immediate management priorities. (4 marks)

c) List 2 risk factors for poor outcome in lower GI bleed. (2 marks)

Question 9 | Ruptured Abdominal Aortic Aneurysm — Operative Pathway (11 marks)

A 75-year-old man is brought to your emergency department by ambulance with sudden onset of severe abdominal and back pain that started 1 hour ago. He is pale, sweaty, and clammy. Past medical history: hypertension, smoking (30 pack-years), known abdominal aortic aneurysm (measured 5.2 centimetres at last surveillance 6 months ago, awaiting elective repair). On arrival: heart rate 130 beats per minute, blood pressure 75/45 millimetres of mercury, respiratory rate 28, peripheral oxygen saturation 96 percent on room air, Glasgow Coma Score 14. Examination: pulsatile abdominal mass; bedside ultrasound shows aortic diameter 6.8 centimetres with surrounding free fluid.

a) List 5 immediate management priorities (drug, dose, end-points). (5 marks)

b) List 3 contraindications to endovascular aortic repair (EVAR) for ruptured AAA. (3 marks)

c) List 3 mortality risk factors for ruptured AAA. (3 marks)

Question 10 | Acute Diverticulitis (11 marks)

A 62-year-old man presents to your emergency department with 3 days of left lower quadrant abdominal pain, fever, and altered bowel habit. He has a history of constipation. On examination, his vital signs are: heart rate 110 beats per minute, blood pressure 130/85 millimetres of mercury, respiratory rate 22, peripheral oxygen saturation 98 percent on room air, temperature 38.4 degrees Celsius. There is left iliac fossa tenderness with localised peritonism but no generalised guarding. White cell count 16, C-reactive protein 145. CT abdomen and pelvis shows a 4 centimetre fluid collection adjacent to a thickened sigmoid colon, no free air.

a) Describe the Hinchey classification of complicated diverticulitis (4 stages). (4 marks)

b) State 4 management priorities for this patient. (4 marks)

c) List 3 indications for surgical intervention in diverticulitis. (3 marks)

Question 11 | Acute Mesenteric Ischaemia — Aetiology and Treatment (11 marks)

A 78-year-old male with permanent atrial fibrillation (off anticoagulation due to recent fall) presents to your emergency department with 6 hours of severe central abdominal pain that is disproportionate to the soft, minimally tender abdomen. His vital signs: heart rate 115 beats per minute, blood pressure 110/75 millimetres of mercury, respiratory rate 26 breaths per minute, peripheral oxygen saturation 96 percent on room air, temperature 37.5 degrees Celsius. Lactate is 4.8.

a) Describe the 4 main aetiologies of acute mesenteric ischaemia. (4 marks)

b) State 4 immediate management priorities. (4 marks)

c) List 3 features distinguishing acute mesenteric ischaemia from other causes of acute abdominal pain. (3 marks)

Question 12 | Strangulated Inguinal Hernia (9 marks)

A 75-year-old man presents to your emergency department with sudden-onset severe right inguinal pain that started 6 hours ago, associated with vomiting and abdominal distension. He has had a chronic right inguinal hernia for years that he could previously reduce. On examination, there is a tender, erythematous, irreducible right inguinal mass. His vital signs: heart rate 105 beats per minute, blood pressure 110/70 millimetres of mercury, respiratory rate 22, peripheral oxygen saturation 98 percent on room air, temperature 37.8 degrees Celsius. White cell count 14, lactate 2.5.

a) Distinguish between reducible, incarcerated, AND strangulated hernia. (3 marks)

b) State 4 management priorities for this patient. (4 marks)

c) List 2 alternative diagnoses to consider in the patient with a tender groin mass. (2 marks)

Question 13 | Anorectal Abscess (9 marks)

A 35-year-old man with a history of Crohn's disease presents to your emergency department with severe perianal pain for 3 days, worse on sitting, and now associated with fever. On examination, there is an obvious tender, erythematous, fluctuant swelling in the right ischiorectal fossa. His vital signs: heart rate 105 beats per minute, blood pressure 130/80 millimetres of mercury, respiratory rate 18, peripheral oxygen saturation 99 percent on room air, temperature 38.5 degrees Celsius.

a) List 3 anatomical types of anorectal abscess. (3 marks)

b) State 3 management priorities. (3 marks)

c) List 3 conditions associated with recurrent perianal abscesses / fistulae. (3 marks)

Question 14 | Toxic Megacolon (Inflammatory Bowel Disease) (11 marks)

A 28-year-old female with known severe ulcerative colitis (treated with mesalazine and azathioprine) presents to your emergency department with a 7-day history of bloody diarrhoea (15-20 episodes per day), severe abdominal pain, fever, and feeling unwell. On arrival: heart rate 130 beats per minute, blood pressure 95/60 millimetres of mercury, respiratory rate 26, peripheral oxygen saturation 96 percent on room air, temperature 39.0 degrees Celsius. Examination: distended, tender abdomen with reduced bowel sounds. White cell count 22, C-reactive protein 220, albumin 20, haemoglobin 92, lactate 4. Plain abdominal radiograph shows transverse colon dilated to 7 centimetres with multiple thumbprinting features.

a) List the 4 diagnostic criteria for toxic megacolon (Jalan criteria). (4 marks)

b) State 4 immediate management priorities. (4 marks)

c) List 3 indications for emergency colectomy. (3 marks)

Question 15 | Post-Operative Complications (10 marks)

A 65-year-old man presents to your emergency department with fever and worsening abdominal pain on day 5 following a laparoscopic-converted-to-open right hemicolectomy for caecal carcinoma. His vital signs: heart rate 120 beats per minute, blood pressure 105/65 millimetres of mercury, respiratory rate 24, peripheral oxygen saturation 95 percent on room air, temperature 38.8 degrees Celsius. Examination: tachycardic, abdomen mildly distended, surgical wound appears clean. Bloods: white cell count 18, C-reactive protein 280, lactate 3.5.

a) List 4 differential diagnoses for fever post-laparotomy AND state typical timing. (4 marks)

b) State 4 immediate management priorities. (4 marks)

c) List 2 risk factors for anastomotic leak. (2 marks)

Question 16 | Acute Appendicitis in Pregnancy (11 marks)

A 30-year-old woman who is 28 weeks pregnant presents to your emergency department with a 24-hour history of progressive abdominal pain, now localised to the right side. Her vital signs: heart rate 105 beats per minute, blood pressure 120/75 millimetres of mercury, respiratory rate 20, peripheral oxygen saturation 99 percent on room air, temperature 38.0 degrees Celsius. On examination, there is right-sided abdominal tenderness located at the level of the umbilicus and right lateral abdomen, with rebound. White cell count 16, lactate 2.0.

a) List 4 considerations specific to appendicitis in pregnancy. (4 marks)

b) State 4 management priorities. (4 marks)

c) List 3 differential diagnoses to consider. (3 marks)

Question 17 | Pneumoperitoneum — Causes and Investigation (9 marks)

A 70-year-old male with a history of chronic constipation presents to your emergency department with sudden-onset severe abdominal pain. He has been straining for 2 days with no bowel movement. His vital signs: heart rate 110 beats per minute, blood pressure 110/70 millimetres of mercury, respiratory rate 26, temperature 37.5 degrees Celsius. Examination: abdomen rigid with generalised tenderness. Erect chest radiograph shows free gas under both hemidiaphragms.

a) List 5 causes of pneumoperitoneum. (5 marks)

b) List 2 investigations to confirm the diagnosis. (2 marks)

c) State 2 immediate management priorities. (2 marks)

Question 18 | Severity Scoring in Acute Pancreatitis (9 marks)

A 60-year-old woman presents to your emergency department with severe epigastric abdominal pain radiating to the back, vomiting, and feeling unwell for 12 hours. She has had a previous episode of similar pain 6 months ago. Her vital signs: heart rate 105 beats per minute, blood pressure 110/75 millimetres of mercury, respiratory rate 22, peripheral oxygen saturation 95 percent on room air, temperature 37.8 degrees Celsius. Bloods: lipase 4500 (diagnostic of pancreatitis); urea 9; creatinine 120; haematocrit 38; PaO₂ 75; Glasgow Coma Score 15.

a) List the 5 components of BISAP score for acute pancreatitis severity. (4 marks)

b) List 3 causes of acute pancreatitis (besides alcohol and gallstones). (3 marks)

c) List 2 indications for early endoscopic retrograde cholangiopancreatography (ERCP) in acute pancreatitis. (2 marks)

Question 19 | Chronic Mesenteric Ischaemia (Intestinal Angina) (9 marks)

A 70-year-old male smoker presents to your emergency department with several months of post-prandial abdominal pain (occurring 30-60 minutes after eating) and significant weight loss (15 kilograms over 6 months). He has developed 'food fear' and is now eating only small amounts. He has past medical history of peripheral vascular disease and ischaemic heart disease. On examination, he is cachectic, with diffuse abdominal tenderness without peritonism. His vital signs are stable. Bloods are unremarkable (white cell count 9, lactate 1.5).

a) List 4 features supporting chronic mesenteric ischaemia. (4 marks)

b) List 3 investigations. (3 marks)

c) State 2 management options. (2 marks)

Question 20 | Rectal Foreign Body (9 marks)

A 35-year-old man self-presents to your emergency department with a retained rectal foreign body inserted approximately 8 hours ago. He is embarrassed and reluctant to give details. He has had no further bowel motions or flatus since insertion. On examination, he is haemodynamically stable but mildly anxious; abdominal examination shows mild lower abdominal tenderness without peritonism. The object cannot be palpated on digital rectal examination.

a) List 3 clinical features that would raise concern for complications. (3 marks)

b) List 3 investigations. (3 marks)

c) State 3 management priorities. (3 marks)

Question 21 | Tokyo Severity Grading for Cholangitis (9 marks)

A 38-year-old woman presents to your emergency department with right upper quadrant pain and jaundice for 3 days. She has a past history of cholelithiasis. Her vital signs: heart rate 125 beats per minute, blood pressure 95/70 millimetres of mercury, respiratory rate 24, peripheral oxygen saturation 99 percent on room air, temperature 39.2 degrees Celsius, Glasgow Coma Score 15. She has a known penicillin sensitivity producing rash.

a) Apply the Tokyo severity grading (TG18) to this patient. (3 marks)

b) List 4 specific antibiotic considerations given penicillin allergy. (4 marks)

c) List 2 ongoing inpatient orders to write. (2 marks)

Question 22 | Post-Cholecystectomy Complications (9 marks)

A 50-year-old woman presents to your emergency department on day 4 after laparoscopic cholecystectomy with progressive abdominal pain, fever, and feeling unwell. Her past surgery was uneventful. On examination, she has generalised abdominal tenderness with peritonism. Her vital signs: heart rate 115 beats per minute, blood pressure 105/65 millimetres of mercury, respiratory rate 24, peripheral oxygen saturation 96 percent on room air, temperature 38.5 degrees Celsius. Bloods: white cell count 18, C-reactive protein 280, bilirubin 80 (raised), alkaline phosphatase 220, lactate 3.0.

a) List 4 differential diagnoses. (4 marks)

b) List 3 investigations. (3 marks)

c) State 2 management priorities. (2 marks)
