

FExNet 2026

Collated SAQs: Paediatric Emergency Medicine

QUESTION BOOKLET

22 short-answer questions covering the ACEM Fellowship paediatric emergency medicine curriculum — airway/breathing emergencies, sepsis, fluids, neurology, neonatal collapse, surgical emergencies, NAI, paediatric toxicology and resuscitation. Sub-questions labelled a) b) c) state the required number of responses.

22 questions • 249 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. Paediatric Anaphylaxis	12	Q12. Non-Accidental Injury	13
Q2. Paediatric Asthma — Severe Exacerbation	13	Q13. Neonatal Jaundice	12
Q3. Bronchiolitis	12	Q14. Neonatal Collapse — Duct-Dependent CHD	12
Q4. Croup (Viral Laryngotracheobronchitis)	10	Q15. Salt-Wasting Crisis (CAH)	10
Q5. Meningococcal Sepsis	14	Q16. Pyloric Stenosis	10
Q6. Gastroenteritis and Dehydration	12	Q17. Paediatric DKA	12
Q7. Febrile Convulsion	11	Q18. Toddler Fracture	10
Q8. Paediatric Status Epilepticus	12	Q19. Foreign Body Aspiration	11
Q9. Fever in Young Infant — LP Indications	10	Q20. Paediatric Drowning	10
Q10. Brief Resolved Unexplained Event (BRUE)	11	Q21. Paediatric Resuscitation — Sizing and Drugs	10
Q11. Intussusception	12	Q22. Paediatric Mental Health and Behavioural Crisis	10

Question 1 | Paediatric Anaphylaxis (12 marks)

A 7-year-old boy is brought to your ED from a primary school by ambulance with widespread urticaria and respiratory distress 10 minutes after eating a peanut butter sandwich. HR 140, RR 42, SpO₂ 90% RA with wheeze and no stridor, BP 75/45, GCS 15.

- a)** Calculate the estimated weight for this 7-year-old (state the formula). (2 marks)

- b)** List the 3 most important treatments. State drug, dose, concentration, route. (6 marks)

- c)** List 4 indications for inpatient admission after anaphylaxis. (4 marks)

Question 2 | Paediatric Asthma — Severe Exacerbation (13 marks)

A 5-year-old boy with known asthma presents with a severe exacerbation. Estimated weight 18 kg.

- a)** List 4 examination signs that classify a SEVERE (but not life-threatening) exacerbation. (4 marks)

- b)** List 5 drugs with dose, route, and indication for treatment of severe paediatric asthma. (5 marks)

- c)** List 4 criteria for safe discharge from ED. (4 marks)

Question 3 | Bronchiolitis (12 marks)

A 5-month-old boy presents with 3 days of coryza and increasing breathlessness, off feeds. RR 60, SpO₂ 90% RA, mild recession, widespread fine crepitations.

a) Name 3 viral organisms commonly causing bronchiolitis. (3 marks)

b) List 4 features indicating SEVERE bronchiolitis warranting admission. (4 marks)

c) Complete the table — investigation AND rationale (or 'not indicated'). (3 marks)

d) List 2 transmission-reduction measures for hospital. (2 marks)

Question 4 | Croup (Viral Laryngotracheobronchitis) (10 marks)

A 2-year-old boy presents with acute onset of barking cough, hoarse voice, and stridor at rest. RR 40, SpO₂ 96% RA, mild intercostal recession. Westley score 4.

a) Name 3 features used to grade croup severity. (3 marks)

b) State 4 management steps for moderate croup with drug, dose, route. (4 marks)

c) List 3 differential diagnoses for stridor in this child. (3 marks)

Question 5 | Meningococcal Sepsis (14 marks)

A 3-year-old unvaccinated boy presents with 2 days of fever, vomiting, lethargy, and a non-blanching purpuric rash that developed this morning. Pulse 180, BP 80/35, T 34.5°C, AVPU = V.

a) List 3 descriptive features of the rash supporting meningococcal disease. (3 marks)

b) List 4 most likely bacterial pathogens. (4 marks)

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

d) List 3 important complications. (3 marks)

Question 6 | Gastroenteritis and Dehydration (12 marks)

A 6-month-old boy (weight 8 kg) presents with 48 h of vomiting and diarrhoea. He is alert, sunken eyes, slightly dry mucous membranes, decreased skin turgor. CRT <2 s. HR 140, RR 44.

- a)** State the percentage dehydration AND state the formula used to estimate fluid deficit. (2 marks)

- b)** Complete the table — for NG and IV rehydration: indication, fluid choice, AND rate/duration. (6 marks)

- c)** List 4 clinical signs to monitor during rehydration. (4 marks)

Question 7 | Febrile Convulsion (11 marks)

A 12-month-old girl presents post-seizure. Fever 39.0°C, lethargy 1 day. Generalised tonic-clonic seizure lasting 4 minutes, self-terminated. Now post-ictal but rousable.

a) List the 4 criteria for a SIMPLE febrile convulsion. (4 marks)

b) Complete the table — for each investigation, state whether routinely indicated and the rationale. (7 marks)

Question 8 | Paediatric Status Epilepticus (12 marks)

A 4-year-old child with known epilepsy presents to ED still seizing 15 minutes after onset despite buccal midazolam at home. Weight 18 kg.

- a)** State the stepwise pharmacological management with drug, dose, route at each step (per APLS). (6 marks)

- b)** List 4 reversible causes to investigate. (4 marks)

- c)** State 2 doses applicable for THIS 18 kg child. (2 marks)

Question 9 | Fever in Young Infant — LP Indications (10 marks)

A 2-month-old boy presents with fever 38.5°C for 24 hours. He is alert and feeding, but parents report he is 'not himself'.

a) List 4 examination features that would prompt lumbar puncture. (4 marks)

b) List 3 contraindications to immediate LP. (3 marks)

c) State the empirical IV antibiotic regimen for suspected sepsis in this 2-month-old. (3 marks)

Question 10 | Brief Resolved Unexplained Event (BRUE) (11 marks)

An 8-week-old girl is brought to ED at 3 am after a brief (15-20 sec) episode of cyanosis, floppiness, and apnoea 10 minutes after a breastfeed. She has been well since. Born at 36 weeks via forceps. No other history.

a) List the 5 criteria defining a BRUE (per AAP 2016). (5 marks)

b) List 3 broad differential categories AND a specific example for each. (3 marks)

c) State 3 features defining LOWER-RISK BRUE allowing consideration of discharge. (3 marks)

Question 11 | Intussusception (12 marks)

A 10-month-old boy presents with episodic inconsolable crying with knee-drawing, intermittent vomiting, and red currant jelly stool. AVPU = A. Pulse 140, BP 85/45, RR 26.

a) List 4 clinical features supporting intussusception. (4 marks)

b) Name the imaging modality of choice AND state 3 features. (3 marks)

c) List 2 reduction options AND state when each is used. (3 marks)

d) List 2 complications of intussusception. (2 marks)

Question 12 | Non-Accidental Injury (13 marks)

A 6-month-old infant is brought to the ED with a swollen, bruised left thigh. The mother states the child fell off the couch. X-ray confirms a spiral fracture of the femur. You are concerned about non-accidental injury.

a) List 5 historical features supporting NAI. (5 marks)

b) List 3 OTHER injury patterns suspicious for NAI (excluding fractures). (3 marks)

c) State 5 management priorities for this case. (5 marks)

Question 13 | Neonatal Jaundice (12 marks)

A 7-day-old breastfed boy presents with jaundice. Parents report he is feeding well, but appears more yellow today.

a) List 6 causes of neonatal jaundice AND a cardinal assessment finding for each. (6 marks)

b) List 4 investigations to perform AND justification. (4 marks)

c) State 2 indications for phototherapy or exchange transfusion. (2 marks)

Question 14 | Neonatal Collapse — Duct-Dependent CHD (12 marks)

A 4-week-old girl is brought in by ambulance — found by mother grey and floppy. On arrival: centrally cyanotic, mottled, weak respiratory effort, CRT 5 sec, unrecordable saturations. Mother reports known congenital heart defect awaiting repair.

- a)** List 4 immediate preparation steps before arrival. (4 marks)

- b)** Complete the table — for each form of duct-dependent circulation, give 2 examples. (4 marks)

- c)** State the dose, route, and rationale for prostaglandin E1. (2 marks)

- d)** List 2 OTHER causes of neonatal collapse to consider. (2 marks)

Question 15 | Salt-Wasting Crisis (CAH) (10 marks)

A 10-day-old baby boy (4 kg) presents flat, not feeding, vomiting, dry mucous membranes. VBG: pH 7.28, pCO₂ 28, Na 128, K 7.1, Cl 88, HCO₃ 13, BE -6, glucose 2.2.

a) List 3 most important blood gas abnormalities. (3 marks)

b) List 3 differential diagnoses other than CAH. (3 marks)

c) List 2 specific tests to confirm congenital adrenal hyperplasia. (2 marks)

d) State 2 immediate treatments with dose. (2 marks)

Question 16 | Pyloric Stenosis (10 marks)

A 3-week-old male infant is brought to ED by his mother with progressive non-bilious projectile vomiting after every feed for 5 days. He has lost 200 g since birth. Hungry after feeds. VBG: pH 7.52, HCO_3^- 32, Cl 84, K 3.0.

a) State the diagnosis AND name the classical biochemical abnormality. (3 marks)

b) List 3 features of clinical examination supporting this diagnosis. (3 marks)

c) Name the diagnostic imaging investigation AND state 2 diagnostic criteria. (2 marks)

d) State 2 management priorities — emphasise the order. (2 marks)

Question 17 | Paediatric DKA (12 marks)

A 9-year-old girl with new diagnosis presents with vomiting, polyuria, polydipsia, deep rapid breathing. Weight 30 kg. BSL 27, pH 7.10, HCO_3^- 8, ketones 5+. GCS 14.

a) State the 3 diagnostic criteria for paediatric DKA. (3 marks)

b) State 6 specific paediatric DKA management principles. (6 marks)

c) State 3 immediate steps if cerebral oedema develops. (3 marks)

Question 18 | Toddler Fracture (10 marks)

A 2-year-old girl presents reluctant to weight-bear after her mother says she pulled a drawer onto her foot. Tibial X-ray shows undisplaced spiral fracture of the distal tibial diaphysis.

a) List 4 examination findings to look for in this child. (4 marks)

b) List 3 pharmacological analgesia options with drug, dose, route, and one adverse effect. (3 marks)

c) List 3 features that would prompt concern for non-accidental injury in this case. (3 marks)

Question 19 | Foreign Body Aspiration (11 marks)

A 3-year-old boy presents with progressively worsening wheeze and SOB over 2 days. RR 50, SpO₂ 89% on 6 L O₂, T 37.4. Wheeze is unilateral on right upper zone.

a) List 6 causes of wheeze in a child AND 2 historical features supporting each. (6 marks)

b) List 3 CXR findings supporting inhaled FB. (3 marks)

c) State 2 management priorities. (2 marks)

Question 20 | Paediatric Drowning (10 marks)

A 3-year-old boy was found face-down in a pool 5 minutes before paramedic arrival. CPR commenced by mother. On arrival to ED: GCS 6, RR 12 (assisted), HR 60, T 32°C, SpO₂ 88% on bag-mask.

a) List 4 immediate management priorities. (4 marks)

b) List 3 important investigations. (3 marks)

c) List 3 prognostic factors. (3 marks)

Question 21 | Paediatric Resuscitation — Sizing and Drugs (10 marks)

A 3-year-old boy (estimated weight 14 kg) is brought in with cardiac arrest. Your team needs equipment and drug doses calculated rapidly.

- a)** Calculate ETT size, ETT depth at lip, defibrillation energy, AND fluid bolus volume for this child. (4 marks)

- b)** State the doses of 4 essential resuscitation drugs. (4 marks)

- c)** State 2 paediatric-specific reversible causes (4 H's and 4 T's). (2 marks)

Question 22 | Paediatric Mental Health and Behavioural Crisis (10 marks)

A 14-year-old girl presents to ED following an impulsive ingestion of unknown number of paracetamol tablets after an argument with her parents. She is now agitated, demanding to leave.

a) List 3 immediate medical priorities for the paracetamol ingestion. (3 marks)

b) List 4 components of de-escalation strategy. (4 marks)

c) State 3 considerations regarding mandatory holding this 14-year-old in ED. (3 marks)
