



EMERGENCY MEDICINE

Adult Emergency Medicine Masterclass

Lead the first hour of every adult emergency with clear, current protocols.

7 days

live-online · recorded

Fee PKR 3,000

Coming soon

Day 1 Resuscitate First: ABCDE, Cardiac Arrest & Peri-arrest Rhythms

Resuscitation · RCUK/ERC 2025 · 2 hours

You'll master

- The ABCDE approach in the resus bay — treat each problem as you find it, call for help early, reassess after every intervention
- Spotting the deteriorating adult with NEWS2 (aggregate ≥ 7 = emergency response; any single red score = urgent review) and the warning signs that come hours before an arrest
- High-quality CPR per RCUK/ERC 2025 — 100–120 compressions/min, 5–6 cm depth, 30:2, minimal pauses, swap compressors every 2 min
- Shockable vs non-shockable rhythms, safe defibrillation, and the 4 Hs & 4 Ts reversible causes
- ALS drugs — adrenaline 1 mg IV/IO; amiodarone 300 mg after the 3rd shock and 150 mg after the 5th (lidocaine 100 mg, then 50 mg, if amiodarone is unavailable)
- Peri-arrest bradycardia — atropine, second-line adrenaline/isoprenaline infusions and transcutaneous pacing
- Peri-arrest tachycardia — synchronised cardioversion for the unstable patient; vagal manoeuvres, adenosine and rate control for the stable one
- Post-ROSC care — SpO₂ 94–98%, normocapnia, avoid hypotension (MAP ≥ 65 mmHg), 12-lead ECG for STEMI, prevent fever for at least 72 hours
- Procedural skills — bag-valve-mask ventilation, airway adjuncts, supraglottic airways and IO access when IV fails

Signature blueprints

Adult Cardiac Arrest — the ALS Loop (RCUK/ERC 2025)

1. Unresponsive and not breathing normally → call the arrest team, start CPR 30:2, attach defibrillator pads with minimal interruption to compressions
2. Rhythm check every 2 min: VF/pulseless VT → one shock at your defibrillator's recommended biphasic energy → resume CPR immediately for 2 min
3. Non-shockable (PEA/asystole) → adrenaline 1 mg IV/IO as soon as possible, then every 3–5 min
4. Shockable → after the 3rd shock: adrenaline 1 mg + amiodarone 300 mg IV; after the 5th shock: amiodarone 150 mg; adrenaline every 3–5 min thereafter
5. Throughout: waveform capnography, airway by the most skilled operator, and a search for the 4 Hs (hypoxia, hypovolaemia, hypo/hyperkalaemia and metabolic, hypothermia) & 4 Ts (thrombosis, tension pneumothorax, tamponade, toxins)
6. ROSC → ABCDE, 12-lead ECG, SpO₂ 94–98%, avoid hypotension, and early cardiology referral if STEMI or a likely cardiac cause

Peri-arrest Rhythms — Brady & Tachy (RCUK 2025)

1. ABCDE, oxygen if SpO₂ <94%, IV access, 12-lead ECG — then look for life-threatening features: shock, syncope, myocardial ischaemia, severe heart failure
2. Bradycardia with adverse features → atropine 500 micrograms IV, repeat every 3–5 min to a total of 3 mg (not in heart-transplant patients or high-grade AV block with broad QRS)
3. Atropine ineffective → adrenaline 2–10 micrograms/min or isoprenaline 5 micrograms/min infusion, and transcutaneous pacing as a bridge to transvenous pacing

4. Unstable tachyarrhythmia → synchronised DC shock, up to 3 attempts, under sedation/anaesthesia; if unsuccessful, amiodarone 300 mg IV over 10–20 min, then repeat the shock
5. Stable regular narrow-complex → modified Valsalva → adenosine 6 mg rapid IV bolus, then 12 mg, then 18 mg (avoid if pre-excitation)
6. Stable broad-complex → treat as VT: synchronised shock, or (if sedation risk is high) procainamide 10–15 mg/kg over 20 min or amiodarone 300 mg IV over 10–60 min then 900 mg over 24 h, with expert advice

Day 2 Chest Pain, ACS & the 12-lead ECG

Cardiovascular · ESC 2023 ACS · 2 hours

You'll master

- A structured chest-pain approach built around the killers — ACS, aortic dissection, pulmonary embolism, tension pneumothorax, oesophageal rupture
- A 12-lead ECG within 10 minutes for every chest pain, and a systematic reading routine — rate, rhythm, axis, intervals, ST segments and T waves
- STEMI criteria (ESC 2023) and the equivalents you must not miss — posterior MI, LBBB or paced rhythm with ischaemic symptoms (Sgarbossa), de Winter T waves, Wellens' pattern, aVR elevation with widespread ST depression
- The ESC 2023 NSTEMI-ACS pathway — high-sensitivity troponin 0/1-h (or 0/2-h) algorithms and risk stratification
- Antiplatelet and anticoagulant loading — aspirin 150–300 mg orally, and a P2Y₁₂ inhibitor timed to the reperfusion strategy
- Fibrinolysis when primary PCI cannot be delivered within 120 minutes — indications, contraindications, streptokinase vs tenecteplase, and rescue PCI
- Oxygen only if SpO₂ <90%; GTN and opioids for symptom relief, and when nitrates are dangerous (RV infarction, hypotension, recent PDE-5 inhibitor)
- Aortic dissection red flags — and why you never thrombolysed tearing back pain
- ECG skills beyond ischaemia — hyperkalaemia, pericarditis vs STEMI, WPW, Brugada and long QT

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STEMI — Door to Reperfusion (ESC 2023)

1. ECG within 10 min of first contact; STEMI = new J-point elevation in ≥2 contiguous leads: ≥1 mm in most leads; in V2–V3 ≥2 mm (men ≥40 y), ≥2.5 mm (men <40 y), ≥1.5 mm (women)
2. Aspirin 150–300 mg chewed (or 75–250 mg IV); titrated IV opioid only for severe pain; oxygen only if SpO₂ <90%
3. Primary PCI achievable within 120 min of diagnosis → activate transfer; P2Y₁₂ (prasugrel 60 mg or ticagrelor 180 mg) and unfractionated heparin 70–100 units/kg IV at PCI
4. PCI not achievable within 120 min → fibrinolysis within 10 min of diagnosis: tenecteplase weight-based single bolus (half dose if ≥75 y) or streptokinase 1.5 million units IV over 30–60 min, with clopidogrel 300 mg (75 mg if >75 y)
5. Anticoagulation with lysis: enoxaparin 30 mg IV bolus, then 1 mg/kg SC 12-hourly if <75 y (no IV bolus and 0.75 mg/kg SC 12-hourly if ≥75 y), adjusted for renal function
6. Reassess at 60–90 min: <50% ST resolution or ongoing pain → rescue PCI; after successful lysis, angiography within 2–24 h

Undifferentiated Chest Pain & NSTEMI-ACS (ESC 2023)

1. ECG within 10 min, repeated whenever the pain recurs; high-sensitivity troponin at 0 h and 1 h (or 2 h) using the assay-specific algorithm
2. Rule-out, observe or rule-in — with a HEART score to support safe discharge decisions
3. Very-high-risk features (haemodynamic instability, refractory pain, life-threatening arrhythmia, acute heart failure, mechanical complications) → immediate invasive strategy (<2 h)

4. Confirmed NSTEMI → aspirin 150–300 mg loading, anticoagulation (fondaparinux 2.5 mg SC daily, or enoxaparin 1 mg/kg SC 12-hourly adjusted for renal function), and cardiology review for an early (<24 h) invasive strategy
5. Before labelling chest pain “cardiac” or “musculoskeletal”, actively exclude dissection, PE, tension pneumothorax and oesophageal rupture

Day 3 The Breathless Patient & ABG Interpretation

Respiratory · BTS/SIGN, NICE, ESC · 2 hours

You'll master

- Acute asthma severity (BTS/SIGN) — acute severe: PEF 33–50%, RR ≥ 25 , HR ≥ 110 , cannot complete sentences; life-threatening: PEF $< 33\%$, SpO₂ $< 92\%$, silent chest, cyanosis, exhaustion, hypotension, arrhythmia, altered consciousness, or a 'normal' PaCO₂
- COPD exacerbations — controlled oxygen to 88–92%, nebulised bronchodilators, prednisolone 30 mg daily for 5 days, antibiotics for purulent sputum, and NIV criteria (pH < 7.35 and PaCO₂ > 6.5 kPa despite optimal medical treatment)
- Pulmonary embolism — two-level Wells score, D-dimer, CTPA, interim anticoagulation, and thrombolysis for high-risk PE
- Acute pulmonary oedema — sit up, IV furosemide, nitrates if BP allows, CPAP; why routine morphine is no longer advised
- Pneumothorax (BTS 2023) — primary vs secondary, conservative care, aspiration or ambulatory devices, chest drains, and tension pneumothorax
- Oxygen prescribing (BTS) — target 94–98% for most patients, 88–92% for those at risk of hypercapnic respiratory failure
- ABG interpretation in five steps — oxygenation, pH, primary process, compensation (Winter's formula: expected PaCO₂ = $1.5 \times \text{HCO}_3^- + 8 \pm 2$ mmHg), anion gap and delta ratio
- Procedural skills — needle decompression, finger thoracostomy and chest-drain insertion in the safe triangle

Signature blueprints

Acute Severe & Life-threatening Asthma (BTS/SIGN)

1. Oxygen to SpO₂ 94–98%; salbutamol 5 mg nebulised (oxygen-driven), repeated every 15–30 min or back-to-back if the response is poor
2. Add ipratropium bromide 0.5 mg nebulised 4–6-hourly for acute severe or poorly responding asthma
3. Steroids early: prednisolone 40–50 mg orally daily for at least 5 days, or hydrocortisone 100 mg IV 6-hourly if unable to take oral
4. Poor response → magnesium sulfate 1.2–2 g IV over 20 min as a single dose, after senior review
5. ABG if SpO₂ $< 92\%$ or any life-threatening feature; a normal or raised PaCO₂ → urgent ICU/anaesthetic review
6. Before discharge: inhaler technique, steroid course, written asthma action plan and early follow-up

Suspected Pulmonary Embolism (NICE NG158 / ESC)

1. Two-level Wells score: PE likely (> 4) → CTPA immediately, or interim anticoagulation if imaging is delayed; PE unlikely (≤ 4) → D-dimer, and CTPA if positive
2. Haemodynamically unstable (SBP < 90 mmHg or vasopressors needed) → bedside echo for RV strain and systemic thrombolysis: alteplase 100 mg IV over 2 h (50 mg bolus in peri-arrest)
3. Stable PE → anticoagulate: apixaban 10 mg twice daily for 7 days, then 5 mg twice daily; or rivaroxaban 15 mg twice daily for 21 days, then 20 mg once daily

4. LMWH where DOACs are unsuitable (e.g. severe renal impairment, pregnancy, active cancer per specialist advice), dosed by weight and renal function
5. Low-risk PE (sPESI 0, no RV dysfunction) → consider outpatient care with early follow-up; treat for at least 3 months

Day 4 Sepsis, Shock, Anaphylaxis & Heat Stroke

Circulation · SSC 2021, RCUK 2021 · 2 hours

You'll master

- Screening for sepsis with NEWS2 and clinical judgement — and why qSOFA alone is not recommended as a screening tool (SSC 2021)
- The first hour in suspected septic shock — cultures, lactate, broad-spectrum antibiotics within 1 hour, balanced crystalloids
- Shock at the bedside — hypovolaemic, distributive, cardiogenic and obstructive — using history, examination and point-of-care ultrasound
- Vasopressors — noradrenaline first-line to a MAP of 65 mmHg, peripheral start when central access would delay it, and when to add vasopressin and hydrocortisone
- Anaphylaxis (RCUK 2021) — recognition, IM adrenaline, refractory anaphylaxis and the low-dose adrenaline infusion
- Heat stroke — core temperature $>40^{\circ}\text{C}$ with CNS dysfunction; “cool first, transport second” with cold-water immersion or evaporative cooling to about $38.5\text{--}39^{\circ}\text{C}$; no antipyretics; watch for rhabdomyolysis, AKI and DIC
- Empirical antibiotics in a high-resistance setting — XDR typhoid, ESBL organisms and using your local antibiogram

Signature blueprints

Septic Shock — the First Hour (Surviving Sepsis Campaign 2021, adult)

1. Recognise: suspected infection with organ dysfunction; measure lactate
2. Blood cultures (without delaying treatment) → broad-spectrum IV antibiotics within 1 hour for probable sepsis or shock; within 3 hours if sepsis is possible without shock and concern persists
3. Hypoperfusion or shock → balanced crystalloid (e.g. Ringer's lactate), SSC suggests 30 mL/kg within the first 3 hours, given as boluses with reassessment after each (extra caution in heart or renal failure)
4. MAP <65 mmHg despite fluids → noradrenaline (a peripheral start is acceptable), titrated to MAP 65 mmHg
5. Noradrenaline 0.25–0.5 micrograms/kg/min → add vasopressin; ongoing vasopressor need (noradrenaline ≥ 0.25 micrograms/kg/min for ≥ 4 h) → hydrocortisone 200 mg/day (e.g. 50 mg IV 6-hourly)
6. Source control as early as practical; repeat lactate to guide resuscitation; early ICU referral

Anaphylaxis (Resuscitation Council UK 2021)

1. Airway, breathing or circulation problem after a likely trigger → call for help, remove the trigger, lie flat (sit up if breathing is difficult; never stand the patient up)
2. Adrenaline 0.5 mg IM (0.5 mL of 1 mg/mL, i.e. 1:1000) into the anterolateral thigh; repeat after 5 min if there is no improvement
3. High-flow oxygen; for shock, IV crystalloid bolus 500–1000 mL
4. No improvement after 2 IM doses → refractory anaphylaxis: low-dose adrenaline infusion with critical-care help, continuing IM adrenaline every 5 min until it runs
5. Antihistamines are not first-line and corticosteroids are no longer routine in the emergency phase; consider them only after initial resuscitation

6. Observe according to the response, take mast-cell tryptase samples, and discharge with allergy referral, a written plan and an adrenaline auto-injector where available

Day 5 Trauma: xABCDE, Haemorrhage Control & Head Injury

Trauma · ATLS 11th edition, NICE NG232 · 2 hours

You'll master

- The ATLS 11th edition xABCDE primary survey — control exsanguinating external haemorrhage first with direct pressure, wound packing, tourniquets and a pelvic binder
- Airway with cervical-spine protection; breathing — the immediately life-threatening chest injuries (tension pneumothorax, open pneumothorax, massive haemothorax, flail chest, cardiac tamponade)
- Circulation — recognising haemorrhagic shock, eFAST, damage-control resuscitation, limited crystalloid, early blood products (1:1:1) and permissive hypotension (not in head injury)
- Tranexamic acid (CRASH-2) — 1 g IV over 10 min within 3 hours of injury, then 1 g over 8 hours
- Head injury — GCS, pupils, NICE NG232 CT criteria and preventing secondary brain injury
- Secondary survey, AMPLE history, log roll, imaging decisions and safe transfer to definitive care
- Procedural skills — tourniquet and pelvic binder application, needle and finger thoracostomy, chest drain and the eFAST views

Signature blueprints

xABCDE Primary Survey & Haemorrhage Control (ATLS 11th)

1. x — exsanguinating external bleeding: direct pressure, wound packing, a tourniquet applied high and tight; pelvic binder centred over the greater trochanters for suspected pelvic fracture
2. A — airway with cervical-spine restriction; definitive airway if GCS ≤ 8 or the airway is threatened
3. B — look, feel, listen; decompress tension pneumothorax (4th/5th intercostal space just anterior to the mid-axillary line), seal an open chest wound, chest drain for massive haemothorax
4. C — two large-bore cannulas or IO, bloods with group and crossmatch, eFAST; limit crystalloid, give blood early (1:1:1), tranexamic acid 1 g IV within 3 h; permissive hypotension (SBP about 80–90 mmHg) until bleeding is controlled, except in head injury
5. D — GCS, pupils and glucose; E — expose fully, then prevent hypothermia with warmed fluids and blankets
6. Reassess after every intervention and decide early on surgery, interventional radiology or transfer

Head Injury — CT & Preventing Secondary Brain Injury (NICE NG232)

1. Assess GCS (E4 V5 M6), pupils and anticoagulant use; protect the cervical spine when indicated
2. CT head within 1 hour if: GCS ≤ 12 on initial ED assessment; GCS < 15 two hours after injury; suspected open or depressed skull fracture; signs of basal skull fracture; post-traumatic seizure; focal neurological deficit; more than one episode of vomiting
3. Loss of consciousness or amnesia plus age ≥ 65 , a bleeding/clotting disorder, a dangerous mechanism or > 30 min retrograde amnesia $\rightarrow$ CT within 8 hours; on anticoagulants or antiplatelets (other than aspirin alone) with no other indication $\rightarrow$ consider CT within 8 hours

4. Prevent secondary injury: avoid hypoxia and hypotension, aim for normocapnia, treat hypo/hyperglycaemia, head-up 30°, analgesia and seizure control
5. Signs of herniation → urgent neurosurgical discussion; hyperosmolar therapy (mannitol or hypertonic saline per local protocol) as a bridge to definitive care
6. Discharge only when criteria are met, with written head-injury advice and a responsible adult at home

Day 6 Neuro & Metabolic Emergencies: Stroke, Seizures, Coma, DKA/HHS, Electrolytes & AKI

Neuro & metabolic · NICE, JBDS, UKKA · 2 hours

You'll master

- Stroke — FAST/ROSIER recognition, glucose check, immediate non-contrast CT; thrombolysis within 4.5 hours (alteplase 0.9 mg/kg, max 90 mg — 10% as a bolus, the rest over 60 min — or tenecteplase 0.25 mg/kg, max 25 mg, single bolus); BP <185/110 mmHg before lysis; thrombectomy referral
- Aspirin 300 mg daily for 2 weeks once haemorrhage is excluded (24 hours after thrombolysis, if given)
- Status epilepticus — the NICE NG217 timeline from first benzodiazepine to anaesthesia
- Reduced GCS — airway first; glucose (treat if <4 mmol/L, with IV thiamine if alcohol or malnutrition is suspected), naloxone for an opioid toxidrome, then CT and the meningitis/encephalitis decision
- DKA (JBDS 2023) — diagnosis, fluids, fixed-rate insulin, potassium and resolution criteria
- HHS (JBDS) — osmolality ≥ 320 mOsm/kg, glucose ≥ 30 mmol/L, no significant ketonaemia; fluid-first, slow correction (osmolality fall 3–8 mOsm/kg/h), insulin 0.05 units/kg/h only once glucose stops falling with fluids (unless ketones >1 mmol/L), VTE prophylaxis
- Hyperkalaemia (UKKA 2023) — 30 mL 10% calcium gluconate IV over 10 min for ECG changes (10 mL 10% calcium chloride in peri-arrest); insulin 10 units with 25 g glucose IV; 10% glucose 50 mL/h for 5 h if pre-treatment glucose <7 mmol/L; nebulised salbutamol 10–20 mg
- Hypokalaemia — oral vs IV replacement, a maximum peripheral IV rate of 10 mmol/h outside critical care, and always check magnesium
- Hyponatraemia (European guideline) — severe symptoms: 150 mL 3% saline over 20 min, repeated (usually up to twice) until sodium rises by 5 mmol/L; limit correction to 10 mmol/L in the first 24 h and 8 mmol/L in each 24 h thereafter
- AKI (KDIGO / NICE NG148) — staging, stopping nephrotoxins, fluid assessment, and urgent dialysis indications (refractory hyperkalaemia, acidosis, fluid overload, uraemic complications, dialysable toxins)

Signature blueprints

Convulsive Status Epilepticus (NICE NG217)

1. 0–5 min: airway, oxygen, glucose check (treat if <4 mmol/L), IV access, time the seizure
2. At 5 min: lorazepam 0.1 mg/kg IV (max 4 mg); no IV access → buccal midazolam 10 mg or rectal diazepam 10–20 mg
3. Still seizing 5–10 min later → repeat the benzodiazepine once
4. Still seizing → second-line IV: levetiracetam 60 mg/kg (max 4,500 mg) over 10 min, or phenytoin 20 mg/kg at no more than 50 mg/min with ECG monitoring, or sodium valproate 40 mg/kg (max 3,000 mg) over 10 min (avoid valproate in women who could be pregnant)
5. Refractory (still seizing ~30 min) → anaesthetist for rapid sequence induction and ICU
6. Look for the cause throughout: hypoglycaemia, hyponatraemia, eclampsia (magnesium sulfate), alcohol withdrawal, CNS infection and toxins; IV thiamine if alcohol or malnutrition

Diabetic Ketoacidosis in Adults (JBDS 2023)

1. Diagnose: glucose >11 mmol/L (or known diabetes) + ketones >3 mmol/L (or urine 2+) + venous pH <7.3 and/or bicarbonate <15 mmol/L
2. Fluids, 0.9% saline: SBP <90 mmHg $\rightarrow$ 500 mL over 10–15 min and senior review; otherwise 1 L over 1 h, then 1 L over 2 h, 1 L over 2 h, 1 L over 4 h (more cautious in older adults, ages 18–25, pregnancy, heart or renal failure)
3. Fixed-rate IV insulin 0.1 units/kg/h (50 units soluble insulin in 50 mL 0.9% saline); continue the usual long-acting basal insulin
4. Potassium per litre of fluid: >5.5 mmol/L none; 3.5–5.5 mmol/L add 40 mmol/L; <3.5 mmol/L senior review for additional potassium
5. Glucose <14 mmol/L $\rightarrow$ add 10% glucose at 125 mL/h alongside the saline, and consider reducing insulin to 0.05 units/kg/h
6. Targets: ketones fall ≥ 0.5 mmol/L/h, bicarbonate rises ≥ 3 mmol/L/h; continue until ketones <0.6 mmol/L and pH >7.3 and/or bicarbonate >18 mmol/L; LMWH thromboprophylaxis

Day 7 Toxicology, GI Emergencies & Safe ED Practice

Toxicology, GI & ED systems · NICE, WHO · 2 hours

You'll master

- Toxidromes at the bedside — cholinergic, anticholinergic, sympathomimetic, opioid and sedative-hypnotic — and when activated charcoal (50 g within 1 hour, airway protected) helps
- Organophosphate pesticide poisoning — early, aggressive atropinisation and monitoring for the intermediate syndrome
- Paracetamol — the UK treatment line (100 mg/L at 4 h), staggered or unknown-time ingestions, and acetylcysteine (21-hour regimen: 150 mg/kg over 1 h, 50 mg/kg over 4 h, 100 mg/kg over 16 h; weight capped at 110 kg — or the shorter regimen where locally adopted)
- Snakebite in Pakistan — saw-scaled viper, Russell's viper, cobra and krait; the 20-minute whole-blood clotting test; polyvalent anti-snake venom (ASV) indications and dosing per national protocol; treating ASV reactions with IM adrenaline; neostigmine with atropine cover for neurotoxic bites; no tourniquets or incisions
- Aluminium phosphide ("wheat pill") — no antidote; early ICU, aggressive shock management, correction of acidosis, ECG monitoring for arrhythmias, and protecting staff from phosphine gas; vs superwarfarin rat poisons, which need vitamin K and INR monitoring
- Benzodiazepine and opioid overdose — airway first; naloxone 400 micrograms IV/IM titrated to breathing (smaller increments in opioid dependence), an infusion for long-acting opioids; why flumazenil is avoided in mixed or chronic users
- Upper GI bleeding — Glasgow-Blatchford score, restrictive transfusion, endoscopy timing, variceal bleeding, and why tranexamic acid is not used (HALT-IT)
- The acute abdomen — AAA, ectopic pregnancy (pregnancy test in every woman of reproductive age), perforation, obstruction, mesenteric ischaemia, pancreatitis, cholangitis, appendicitis; early analgesia does not mask the diagnosis
- ED documentation & handover — SBAR/ISBAR, NEWS2 trends, safety-netting, capacity and consent, leaving against medical advice (LAMA), and medico-legal (MLC) cases and police reporting in Pakistan

Signature blueprints

Organophosphate Poisoning (Eddleston protocol / WHO)

1. Protect staff (gloves, remove contaminated clothes); airway, high-flow oxygen, suction secretions; record pupils, HR, BP, chest sounds and sweating
2. Atropine 1.8–3 mg IV rapid bolus; reassess after 5 min — if not atropinised, double the dose (3.6 mg, 7.2 mg ...) every 5 min
3. Atropinised = clear chest on auscultation, HR >80/min, SBP >80 mmHg, dry axillae, pupils no longer pinpoint
4. Maintain with an infusion of 10–20% of the total loading dose per hour; watch for atropine toxicity (confusion, hyperthermia, absent bowel sounds, urinary retention) — stop, then restart at a lower rate once it settles
5. Pralidoxime per local protocol (benefit uncertain); diazepam for seizures or severe agitation; avoid suxamethonium for intubation (prolonged paralysis)
6. Observe for the intermediate syndrome (neck-flexion weakness, cranial nerve palsies, respiratory failure) typically 24–96 hours after ingestion

Upper GI Bleed (NICE CG141 / ESGE)

1. ABCDE, two large-bore cannulas; FBC, urea and electrolytes, LFTs, clotting, group and crossmatch
2. Glasgow-Blatchford score: 0 (≤ 1 per ESGE) → consider early outpatient management; higher scores → admit for endoscopy
3. Restrictive transfusion: Hb threshold 70 g/L (target 70–90 g/L), 80 g/L with cardiovascular disease; platelets if $< 50 \times 10^9/L$ with active bleeding; correct coagulopathy and reverse anticoagulants
4. Suspected variceal bleed → terlipressin 2 mg IV 4-hourly (reduce to 1 mg 4-hourly once controlled) + prophylactic antibiotics (e.g. ceftriaxone 1 g IV daily) before endoscopy
5. Endoscopy immediately after resuscitation if unstable, otherwise within 24 h; PPI after endoscopy for non-variceal bleeding (not before, per NICE); no tranexamic acid
6. Re-bleeding → repeat endoscopy, interventional radiology or surgery