Paramedic Clinical Judgment Study Guide

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This study guide focuses on Clinical Judgment for paramedics. It aligns with the NREMT Paramedic certification exam, National EMS Scope of Practice Model 2019 (with updates), National EMS Education Standards, AHA ACLS/PALS 2025 Guidelines, PHTLS 10th Edition principles, and current evidence-based prehospital decision-making frameworks (as of 2026). Clinical judgment is embedded throughout the exam—especially in scenario-based questions, patient assessment, treatment prioritization, transport decisions, and ALS-level interventions. Paramedic-Level Clinical Judgment Core Skills: Rapidly identify and treat immediately life-threatening conditions (C-ABCDE with advanced interventions) Interpret 12-lead ECG, waveform capnography, and point-of-care labs (if available) Weigh risks/benefits of advanced procedures (RSI/DSI, needle decompression, TXA, vasopressors) Decide between stay-and-play vs. load-and-go in complex medical and trauma cases Choose appropriate destination (Level I trauma, STEMI center, stroke center, ECMO-capable, pediatric specialty) Recognize when to terminate resuscitation or initiate field termination protocols Manage resource allocation in multi-casualty incidents Balance aggressive treatment with harm avoidance (e.g., permissive hypotension, avoiding over-ventilation). Key Principle: Always ask: What is the most immediate life threat? What reversible causes can I address now? What intervention gives the highest probability of meaningful outcome? Where is the patient going to get definitive care fastest and best?

Section 1: Advanced Primary Survey & Critical Decision Points

C-ABCDE with Paramedic Interventions:

C – Catastrophic Hemorrhage → Tourniquets, junctional devices, hemostatic packing, pelvic binder, TXA 1 g IV/IO within 3 hours.

A – Airway → RSI/DSI if indicated, video laryngoscopy, surgical airway backup, confirm with waveform capnography.

B – Breathing → Needle decompression for tension pneumothorax, vented chest seals, positive pressure ventilation titration (avoid hyperventilation – target EtCO&sub2; 35–45 mmHg post-ROSC).

C – Circulation → IV/IO access, permissive hypotension in penetrating trauma (SBP ~90 or radial pulse), vasopressors for refractory shock (norepinephrine first-line), massive transfusion protocol activation if available.

D – Disability → GCS trending, pupil exam, glucose, rapid neuro check, seizure control (midazolam/ketamine/levetiracetam).

E – Exposure/Environment → Prevent hypothermia (warm blankets, fluid warmers), full log-roll with spinal precautions.

Load-and-Go Triggers (Paramedic Perspective):

Unstable ABCs despite interventions

Penetrating torso/head/neck trauma

GCS <9 or deteriorating

Signs of herniation (blown pupil, Cushing triad)

Refractory shock or arrest

STEMI with ongoing pain/hypotension

Status epilepticus unresponsive to initial benzodiazepines

Complicated obstetric emergencies (prolapsed cord, shoulder dystocia, eclampsia)

Section 2: High-Risk Presentations & Must-Act Differentials

Presentation	Top Life-Threatening Differentials	Critical Paramedic Decisions & Actions
Hypotension + JVD + muffled heart sounds	Pericardial tamponade	Rapid transport, fluids cautious, pericardiocentesis if protocol/training allows
Sudden severe tearing chest/back pain + unequal pulses	Aortic dissection	Avoid aggressive BP lowering, rapid transport to vascular/cardiothoracic center
Altered mental status + fever + petechiae	Meningococcemia / sepsis	Broad-spectrum antibiotics if protocol, fluids 30 mL/kg, vasopressors, pediatric/ICU destination
Chest pain + inferior STEMI + clear lungs	Right ventricular infarct	Right-sided 12-lead, avoid nitrates, cautious fluids, rapid PCI
Post-arrest patient with ROSC	Cardiogenic shock, aspiration, hypoxia	12-lead ECG, targeted temperature 32–36°C, MAP ≥65 mmHg, cath lab if STEMI
Agitated delirium + hyperthermia + rigidity	Serotonin syndrome / NMS / excited delirium	Ketamine sedation, cooling measures, rapid transport
Pediatric bradycardia + poor perfusion	Congenital heart disease vs. hypoxia	Epinephrine first-line, pacing if needed, pediatric specialty center

Section 3: High-Yield Paramedic Judgment Scenarios

Scenario 1: 58 y/o male, crushing chest pain, 12-lead shows inferior STEMI, BP 82/48, HR 52. **Judgment:** Right ventricular involvement likely. **Action:** Aspirin/heparin, no nitroglycerin, cautious 250–500 mL fluid bolus, dopamine/epinephrine infusion if needed, rapid PCI center transport.

Scenario 2: 32 y/o female, 32 weeks pregnant, prolapsed cord, fetal bradycardia.**Judgment:** Obstetric emergency requiring surgical delivery. **Action:** Knee-chest position, manual elevation of presenting part, cover cord with moist dressing, rapid transport to OB-capable facility, ALS already present.

Scenario 3: 45 y/o male, GSW to chest, absent breath sounds right side, tracheal deviation left, BP 76/40. **Judgment:** Tension pneumothorax. **Action:** Immediate needle decompression (4th/5th ICS anterior axillary or 2nd ICS mid-clavicular), vented chest seal, IV/IO fluids/TXA, rapid trauma center transport.

Scenario 4: 70 y/o female, unwitnessed fall, GCS 7, unequal pupils, BP 190/100, HR 48**Judgment:** Suspected intracranial hemorrhage with herniation. **Action:** Hyperventilate briefly to EtCO&sub2; 30–35 mmHg, elevate head 30°, rapid transport to neurosurgical center, consider mannitol if protocol allows.

Scenario 5: 25 y/o male, cardiac arrest, ROSC after 3 shocks + amiodarone, comatose, BP 88/50. **Judgment:** Post-arrest cardiogenic shock. **Action:** Targeted temperature 32–36°C, norepinephrine infusion, 12-lead ECG, transport to ECMO/PCI-capable center if available.

Section 4: Common Paramedic Judgment Pitfalls to Avoid

Over-ventilating post-arrest patients → cerebral vasoconstriction.

Giving nitroglycerin in right ventricular infarct → preload drop → hypotension.

Delaying transport for non-definitive interventions in penetrating trauma.

Missing subtle signs of compensated shock in pediatrics (late hypotension).

Hesitating to perform RSI/DSI when BVM is marginal and transport prolonged.

Transporting to closest facility instead of specialty center when time difference is minimal.

Terminating resuscitation prematurely without considering reversible causes or family input.

Example Judgment + Math Question:

Question: 80 kg trauma patient in hemorrhagic shock. Protocol: TXA 1 g IV over 10 min, then 1 g over 8 hours. You have 10 g vial and 100 mL NS bag. How many mL of the mixed solution per minute for the loading dose? **Solution:** 1 g in 100 mL = 10 mg/mL. Loading dose = 1 g = 100 mL over 10 min = 10 mL/min. **Reasoning:** Concentration = dose ÷ volume. Rate = total loading volume ÷ time. Mastering paramedic clinical judgment requires pattern recognition, rapid risk stratification, knowledge of transport windows, and confidence in advanced interventions. Practice scenarios relentlessly, review ECGs daily, and debrief every critical call. Good luck on your paramedic certification—think fast, act decisively, and always ask “What’s going to kill them next?”