Scenario 1

Blast injury, splinting, burn, etc.

Scenario Set Up	**Equipment:** Back board, BVM, O2 tank, blanket, spider straps, sterile dressings, gauze, stabilization tools, c-collar **PROCTOR:** The patient is concussed from an explosion. Both patient and bystanders do not know the patient's history. Patient is in compensated shock and will decompensate on call.
Dispatch	You are dispatched to the El Segundo oil refinery that just exploded to treat a 29 YOF employee
Scene Size Up	Patient is surrounded by bystanders who dragged them out of the facility. Patient is screaming and has noticeable shrapnel wounds.
Pertinent Primary Assessment Findings	**A.O.X2** (knows Name + Location; can remember basic information, but nothing before explosion) X - Minor bleeding from shrapnel, but not life threatening A - Open and Patent B - 25 and Deep C - Charred Skin, 180HR, 2seconds
Pertinent Secondary Assessment Findings	Patient can identify themselves, but provides no useful medical history D- Back Left of skull and a step off on spine C- none A- none P- Lower left Arm, Right upper back, back left thigh have shrapnel B- 1st and 2nd degree burns on back of head and arms T- none L- none S- none After DCAPBTLS, patient become non-responsive and goes into decompensated shock. <u>See second set of vitals</u>
Vitals	**Set 1:** BP: 140/90, HR:160, RR: 25 deep, BGL:, SPO2:97, Cap Refill 2 sec **Set 2:**

	BP: 60/40, HR: 200, RR:10 shallow and irregular, SPO2: Unreadable, Cap Refill: 8 seconds
Treatments	Transport, C-spine precautions (C-collar but if decompensating, skip full spine boarding), oxygen 15 LPM BVM, keep warm → ambulance temp + blanket, supine position
Key Points	The patient has a spinal injury and goes into shock, meaning they need to be rapidly transported before being backboarded; otherwise, they will die. EMTs should be prepared to treat burns, protrusions, and spinal, but ultimately transport patient because of shock.
Bonus Questions	What are the signs and symptoms of shock? → cool pale clammy, tachycardic, low BP, relevant MOI. What kind of shock did the patient experience? → neurogenic shock d/t spinal injury

Scenario 2

MVA, Pt stuck beneath car (30YOF, CC burn with SOB and chest pain)

Scenario Set Up	Equipment: NRB, burn sheet, ALS A man driving on the freeway was rear ended by another vehicle while merging onto the freeway. That vehicle had drunk people standing up through the moonroof. After the impact, the patient ended up underneath the man's car. The man is uninjured and sitting on the side of the road. Your patient, a 30 YOF, is in so much pain that she can't stop screaming. **Note:** This is a real call that one of my TAs from EMT school ran us through.
Dispatch	Responding to MVA code 3, female trapped underneath car
Scene Size Up	On arrival, pt is screaming and trapped underneath a car, getting burned by the underside. You really cannot tell anything right now, just that the pt is in a lot of pain. Fire is on scene to help with extrication.
Pertinent Primary Assessment Findings	AVPU- **Alert** A&O X **3** (not to event) A - Patent, clear B - Rapid/labored, lung sounds diminished on the left side, burns on chest C - rapid/weak pulse, skin pale and sweaty, cap refill ~3 seconds

Pertinent Secondary Assessment Findings	O - accident P - none Q - burning R - chest, throat S - 10/10 T - constant A - None M - None P - None L - No idea E - see above Physical Exam pertinent findings: - Car exhaust impression mark diagonally across chest - diminished lung sounds on left side - CSMs intact but weak - JVD observed - subcutaneous emphysema on chest - Other burns/minor injuries throughout body
Vitals	BP: 116/68, HR:130, RR:30, BGL:wnl, SPO2: 89, **GCS** (E3,V4,M6) BP: 102/60, HR:130, RR:30, BGL:wnl, SPO2: 92, **GCS** (E3,V**3**,M**4**)
Treatments	Rapid transport, oxygen via NRB, burn treatment (dressing, sheet), shock treatment (supine, warmth, O2), ALS can do needle decompression
Key Points	Get ALS, treat for shock, rapid transport, oxygen
Bonus Questions	How does positive-pressure ventilation affect a pneumothorax? (not good, can lead to tension pneumo)

Scenario 3

32 YOM MVC Victim – Leg Hemorrhage, Suspected Skull Fracture, Flail Chest

Scenario Set Up	**Equipment:** Gloves, Trauma dressings & tourniquet, O_2 equipment: NRB, BVM, OPA/NPA, Suction unit, C-collar, backboard, head blocks, Trauma shears, BP cuff, pulse ox, Stretcher **PROCTOR:** You're a 32 YOM driver in a high-speed MVC. Found unrestrained, partially ejected, lying on the road. Large pool of blood from left thigh laceration (arterial bleed). You're initially responsive but become progressively less alert. You also have: **Basilar skull fracture signs:** raccoon eyes, Battle's sign, bloody CSF-tinged drainage from right ear. **Flail chest:** paradoxical movement in left ribs, severe pain with breathing. **Signs of increased ICP (epidural bleed evolving)**: headache, confusion → declining LOC, unequal pupils, vomiting, bradycardia/hypertension later if untreated. If bleeding isn't controlled quickly, the proctor should simulate rapid deterioration.
Dispatch	Respond Code 3 to a high-speed motor vehicle crash. Reports of an unrestrained driver ejected, unconscious, bleeding heavily from the leg.
Scene Size Up	Scene safe, PD already on scene controlling traffic 32-YOM on the ground, bystanders applying poor pressure to left thigh wound Vehicle destroyed, windshield shattered (spider-webbing) Patient semi-conscious, moaning, bloody emesis nearby
Pertinent Primary Assessment Findings	**AVPU:** Initially responsive to voice (**A&O x 1**, **all they really know is pain,** groans in response), becomes progressively less responsive (towards painful) **Airway**: Patent but gurgling, blood in airway → requires suction **Breathing**: Shallow, 28/min, paradoxical chest movement left ribs (flail segment), diminished breath sounds left side **Circulation**: Severe arterial bleed left thigh; skin pale, cool, clammy; weak carotid pulse; radial pulse absent, delayed cap refill

Pertinent Secondary Assessment Findings	Pertinent Secondary Assessment Findings (SAMPLE) **A:** No known allergies **M:** No meds reported **P**: No significant medical history **L**: Last meal ~3 hours ago **E**: High-speed MVC, partially ejected, struck head on pavement Patient is hardly responding **Focused physical exam reveals:** **Leg:** Deep open femoral laceration with uncontrolled bleeding → tourniquet needed **Head:** Periorbital ecchymosis (raccoon eyes), Battle's sign, bloody CSF drainage from ear **Neuro:** Pupils unequal, right dilated/sluggish, left reactive; declining LOC **Chest:** Flail segment with paradoxical movement; painful respirations
Vitals	Initial Vitals BP: 100/70; HR: 138, weak carotid; RR: 28, shallow & painful; SpO_2: 86% RA; Skin: Pale, diaphoretic After Tourniquet, O_2, Suction, Spinal Precautions: BP: 130/58; HR: 65; RR: 26, irregular; SpO_2: 95% on O_2; LOC: still declining unless rapid transport **Brain bleed is getting worse**
Treatments	Manual C-spine, apply C-collar Suction airway, consider OPA/NPA (contraindicated by skull fracture → should be OPA only.) High-flow O_2 via **BVM** because of shallow ineffective painful breaths Apply tourniquet to left thigh proximal to bleed Treat flail chest with bulky dressing stabilization **or** rapid transport - based on training

	Rapid trauma assessment → load & go to trauma center Spinal immobilization (backboard, head blocks) Ongoing reassessment, prepare for airway deterioration and ICP progression
Key Points	Recognize multiple simultaneous life threats: hemorrhage, airway compromise, flail chest, and TBI Prioritize bleeding control → airway → breathing → spinal precautions Recognize signs of increased ICP and need for rapid transport Avoid inserting NPA in basilar skull fracture Manage shock aggressively and anticipate rapid deterioration
Bonus Questions	What are classic signs of a basilar skull fracture? Why is NPA contraindicated in this case? What is the hallmark triad of increased ICP (Cushing's triad)? How should a flail chest be managed prehospital?

KAHOOT

https://berkeley.zoom.us/j/2481872088

Meeting ID: 248 187 2088

BMRC: Trauma Emergencies Presentation Outline

Kahoot questions

(note: right answer marked with yellow highlight)

1. Which of the following is being considered as yellow patient according to ALCO?
    a. Bone fracture
    b. 15 inches intrusion at occupant site
    c. Ejection of a patient with stable signs
    d. Pulseless extremity

2. A patient with a suspected spinal injury should be managed by:
    a. Lifting them quickly by arms and legs
    b. Allowing them to walk to the stretcher
    c. Maintaining manual cervical spine stabilization
    d. Only using oxygen

3. Paradoxical chest wall movement is most consistent with:
    a. Flail chest
    b. Tension pneumothorax
    c. Hemothorax
    d. Hemopneumothorax
    e. Pulmonary embolism

4. A patient with penetrating chest trauma has bubbling blood at the wound. What is the correct management?
    a. Cover with dry gauze only
    b. Apply pressure dressing on all four sides
    c. Insert a nasopharyngeal airway
    d. Apply an occlusive dressing taped on three sides

5. What type of trauma is this?

   a. Closed fracture
   b. Laceration
   c. Dislocation
   d. Compound fracture

6. Which wound is at the highest risk of internal bleeding and **hidden** infection?
   a. Abrasion
   b. Laceration
   c. Puncture
   d. Contusion

7. A factory worker's hand is caught in heavy machinery. His finger has been completely torn off at the base, and you find the amputated part nearby. Which type of wound best describes this injury?
   a. Avulsion
   b. Laceration
   c. Evisceration
   d. Puncture

8. A patient has an open neck wound that is sucking air. Which type of bleeding control should you employ?
   a. Packing
   b. Occlusive seal
   c. Tourniquette
   d. Tracheotomy

9. You arrive on scene to a 23 year old male with a GSW to the abdomen. He appears to have lost a moderate amount of blood. What should your first step be?
    a. Apply a 4 sided occlusive dressing
    b. Apply a 3 sided occlusive dressing
    c. Make sure that the scene is safe
    d. Pack the wound with Hemostatic Gauze
10. What does the "A" in DCAPBTLS stand for?
    a. Abrasions
    b. Avulions
    c. Amputations
    d. Adequate breathing
11. What is the most important factor in the survival of patients with internal bleeding?
    a. Treating for shock
    b. Giving high-flow oxygen
    c. Determining the cause of the bleeding at the scene
    d. Getting them to the hospital
12. What will kill a patient the fastest?
    a. Airway obstruction
    b. Massive Hemorrhaging
    c. Tension Pneumothorax
    d. Knee pain from 10 years ago
13. Is there ever a circumstance where you can pack a neck wound?
    a. Yes
    b. No
14. In a coup-contrecoup injury, how many times does the brain impact the skull?
    a. 1
    b. 2
    c. 3
    d. 4