

EMT-PARAMEDIC AND BEYOND

MEDICAL EMERGENCIES SCENARIOS

SCENARIO ONE

You are called to a restaurant on a report of “difficulty breathing.” The patient is a 23 year-old female who appears to be fairly severe distress as crew approaches.

SCENE SAFETY: Secure

GENERAL IMPRESSION: The patient is sitting up in obvious distress.

LOC: She is awake, alert, and extremely anxious.

CHIEF COMPLAINT: “I’m itching, my voice is hoarse, I have a lump in my throat, and I seem to be having trouble breathing.”

AIRWAY: Open although you hear the hoarseness in her voice.

BREATHING: Slightly labored and somewhat fast respirations with inspiratory stridor and a cough.

CIRCULATION: Radial pulses are present. Capillary refill is <2 seconds. Skin is pale and warm but moist.

HEAD, FACE, NECK: Neck veins visible but not distended. Pupils at 5 and reactive. Lips are becoming edematous and there is urticaria on her face and throat.

CHEST: Equal rise and fall of the chest with breathing. No accessory muscle use. Heart tones normal – S1 and S2 noted. Breath sounds clear and equal bilaterally without wheezing, rales or rhonchi. Some urticaria noted.

ABDOMEN: No pulsating masses or other. Some urticaria and redness.

PELVIS: Normal.

LEGS: No pedal edema.

UPPER EXTREMITIES: Equal pulses. No edema.

BACK: Breath sounds clear and equal bilaterally.

GCS: 15

VITAL SIGNS: BP: 146/98, P: 124 and strong, R 26 and shallow but regular. O2 sat 93%. ECG **Sinus tachycardia.**

SAMPLE: Signs and symptoms as given. Pt states she has never been allergic to anything before but this is her first time to ever eat seafood, which she ate shrimp salad about 15 minutes ago. She has no past history, takes no meds.

(Critical intervention with O2, IV, Epinephrine IV and Benedryl IV.)

LOC/GCS: Still alert and oriented.

AIRWAY: Still open

BREATHING: Respiratory distress seems to be **getting better if patient is treated appropriately.** O2 sat now 98%.

CIRCULATION: Radial pulses are still strong and regular.

VITAL SIGNS: BP: 140/90, P is about 130 **Sinus tachycardia.** R 20.

EMT-PARAMEDIC AND BEYOND

REASSESSMENT: Skin condition improving if treated with less and less urticaria, less redness, hoarseness disappears as does swelling in face and neck. If pt not treated appropriately, condition should deteriorate to respiratory arrest requiring airway intervention such as surgical cric, needle cric, etc, fluid replacement and general shock treatment.

GOALS: Rapidly identify emergency response needed for anaphylactic reaction.
High flow O2 with NRB.
IV with Epinephrine and Benedryl IVP to arrest reaction since airway is becoming involved.

SCENARIO TWO

Your next call is to evaluate a 13 year-old male complaining of abdominal pain.

SCENE SAFETY: Secure
GENERAL IMPRESSION: The patient appears to be anxious and possibly in pain.
LOC: He is awake and alert and able to answer all questions.
CHIEF COMPLAINT: “My belly hurts and I’ve been throwing up since this morning.”
AIRWAY: Open
BREATHING: Normal rate and shallow
CIRCULATION: Radial pulses are present and strong. Capillary refill is <2 seconds. Skin is pale but a little cool.
HEAD, FACE, NECK: Neck veins visible but not distended. Pupils at 3 and reactive. No cyanosis or anything significant noted.
CHEST: Equal rise and fall of the chest with breathing. No accessory muscle use. Heart tones normal – S1 and S2 noted. Breath sounds clear and equal bilaterally.
ABDOMEN: No pulsating masses noted. If palpated properly, crew will find that the pain is in the right lower quadrant. Some tenderness and guarding in that area. If incorrect palpation, will find diffuse pain and guarding across the abdomen.
PELVIS: Normal.
LEGS: No pedal edema.
UPPER EXTREMITIES: Equal pulses. No edema.
BACK: Breath sounds clear and equal bilaterally.
GCS: 15
VITAL SIGNS: BP: 130/70, P: 104, strong and regular, R 20, shallow and regular. O2 sat 95%. ECG **Sinus Tachycardia**.
SAMPLE: Patient states that the pain began around his umbilical area this morning around 10 am and has moved to its current location throughout the day..

EMT-PARAMEDIC AND BEYOND

(Critical intervention with O₂, large bore IV at between 120 and 170 ml/hr range. Give patient something to throw up in and prepare suction equipment. If no preparation, pt may projectile vomit. Place pt in position of comfort, which should be on side with legs drawn up from student patient.)

LOC/GCS: Still alert and oriented.
AIRWAY: Still open
BREATHING: Rate is increasing..
CIRCULATION: Radial pulses have disappeared; brachial or femoral noted.
Skin is pale and moist.
VITAL SIGNS: BP: 80/40, P is 130 with ECG increasing rate. R 28.
(Critical intervention now to increase fluid rate and to rapid transport. Notification of MC of pt condition so preparation for immediate surgery can occur.)

REASSESSMENT: Patient's condition will improve if critical interventions added at appropriate times. Otherwise, pt can deteriorate to V-fib and doesn't convert with defibs.

GOALS: Recognition of appendicitis.
High flow O₂ and large bore IV with increased rate above

TKO.
Recognition of signs of deterioration and notification of receiving facility so that preparations for emergency surgery can occur without delay.

SCENARIO THREE

You are dispatched for an "unconscious person."

SCENE SAFETY: You note bread dough rising on the counter. The oven door is open, and it is extremely hot in the kitchen where the patient is located.

GENERAL IMPRESSION: The patient is lying on her right side on the kitchen floor and appears to be unresponsive.

LOC: She is responsive to painful stimuli with light moans.

CHIEF COMPLAINT: Patient is unable to speak.

AIRWAY: Open

BREATHING: Slightly rapid respirations but regular.

CIRCULATION: Radial pulses are absent. A carotid is present but weak and rapid. Capillary refill is >2 seconds. Skin is pale, warm and wet.

HEAD, FACE, NECK: Neck veins are not visible.. Pupils at 2 and non-reactive.

CHEST: Equal rise and fall of the chest with breathing. Slight accessory muscle use noted. Heart tones are distant and hard to hear. Breath sounds reveal no sounds on the right and rales, wheezes and rhonchi on the left.

ABDOMEN: Distended but soft with no pulsating masses.

PELVIS: Normal.

EMT-PARAMEDIC AND BEYOND

LEGS: Pitting edema x 3 is present to mid-shin bilaterally.
UPPER EXTREMITIES: No pulses. No detectable edema. Response to any painful stimuli is withdrawing from pain.
BACK: Breath sounds louder hear but still nothing on the right.
GCS: 5

VITAL SIGNS: BP: undetectable, P: at neck is approximately 146 and weak, R 36 and shallow and regular. O2 sat 90%. ECG Sinus tachycardia. If crew asks for a thermometer, her temperature will be 106 degrees F. Blood glucose is 34 mg/dL.

SAMPLE: Patient's son says he talked to his mother earlier in the day because her air-conditioner wasn't working. He stopped by after work to check on her and found her on the floor with the oven on. He turned the oven off and called 911. He will tell crew if asked that she had a heart attack about 3 years ago. She has been a Type II diabetic for 5 years. She takes Digoxin, Lasix and Glucotrol. She has had problems with swollen feet since the beginning of the summer, but blamed it on the heat and refused to see her doctor.

(Critical intervention with O2 and patient moved immediately to a cooler environment on a backboard if possible, IV large bore with rate increased to about 2 liters to be delivered over an hour to increase perfusion without causing increases in fluid overload. Thiamine and D50W IVP. Consider Narcan but not necessary based on scenario – is unlikely.)

LOC/GCS: If treatment as above, then level of consciousness will progressively improve. If not, no change.

AIRWAY: Still open

BREATHING: If treated appropriately, breathing will improve. If not, intubation should be considered.

CIRCULATION: Radial pulses will return with proper treatment. and skin condition and cap refill will also improve.

VITAL SIGNS: If properly treated, BP: 80/40, P 130 with ECG rate decreasing. R 26.

REASSESSMENT: Patient's condition will improve if critical interventions added at appropriate times. Otherwise, pt can deteriorate to V-fib and doesn't convert with defibs.

GOALS: Immediate recognition of patient's need for O2 and that environment is critical part of problem. Active cooling without causing shivering is necessary.
Spinal restriction since it is not known initially if a fall was involved.

EMT-PARAMEDIC AND BEYOND

IV with increased rates but without fluid challenges and boluses due to volume overload with return of normal temperature.

Recognition of need for D50W. Thiamine and Narcan not necessary but may be required in protocol – good history precludes necessity of these agents.

SCENARIO FOUR

A patient walks into your EMS station complaining that a snake bit him.

SCENE SAFETY: Secure

GENERAL IMPRESSION: The patient appears to be upset and in severe pain and is limping. Pt also appears to be short of breath.

LOC: Awake and alert.

CHIEF COMPLAINT: “My left foot hurts where a snake bit me. It is REALLY burning.”

AIRWAY: Open

BREATHING: A little fast and shallow.

CIRCULATION: Radial pulses are rapid and weak. Capillary refill is <2 seconds. Skin is pale, cool and moist.

HEAD, FACE, NECK: Neck veins visible but not distended. Pupils at 4 and reactive.

CHEST: Equal rise and fall of the chest with breathing. No accessory muscle use. Heart tones normal – S1 and S2 noted. Breath sounds clear and equal bilaterally.

ABDOMEN: No pulsating masses or other.

PELVIS: Normal.

LEGS: No pedal edema. The bitten area however is swollen and discolored.

UPPER EXTREMITIES: Equal pulses. No edema.

BACK: Breath sounds clear and equal bilaterally.

GCS: 15

VITAL SIGNS: BP: 162/96, P: 110, weak and regular, R 24, shallow and regular. O2 sat 97%. ECG **Sinus Tachycardia.**

SAMPLE: Patient says he was out walking barefoot in his backyard about 20 minutes ago when he felt something bite him. He saw a snake slither off but doesn’t have a clue what kind it was. He says he feels weak and faint and the bite is extremely painful. He has no PMH, no meds and no allergies. He ate lunch earlier today but has not had supper.

(Critical intervention with O2. Immobilize the foot with splinting after covering the bitten area with dry sterile dressing and bandage. Keep the area below the level of the heart and do not apply constricting bands or ice or heat. Decision should be to transport to a facility that might have antivenin or can get it. Early notification.)

LOC/GCS: Still alert and oriented.

EMT-PARAMEDIC AND BEYOND

AIRWAY: Still open
BREATHING: No change.
CIRCULATION: Everything to remain the same unless extremity not secured or other incorrect treatment. Then patient can deteriorate into arrest.
VITAL SIGNS: If treated properly, BP: 160/90, P 100 with ECG borderline Sinus Tach. R 22.

REASSESSMENT: Patient's condition will improve if critical interventions added at appropriate times. Otherwise, pt can deteriorate to arrest.

GOALS: Recognition of pit viper bite.
O2 application.
Immediate securing of site to minimize movement and place below the level of the heart.
Current care is still no ice and no constricting bands but this is still controversial in some sections of the state.

SCENARIO FIVE

A husband called 911 because he just got home from work and found both his wife and son ill. The woman is 48 and the son is 16.

SCENE SAFETY: Nothing visible noted.
GENERAL IMPRESSION: Pt 1 appears to be sleeping but has vomited on herself and been incontinent of stool.

Pt 2 also appears to be sleeping.
LOC: When awakened, both patients are alert and oriented.
CHIEF COMPLAINT: Both complain of a headache and abdominal pain.
AIRWAY: Open for both
BREATHING: Both breathe at fairly normal ranges and normal depths.
CIRCULATION: Radial pulses are rapid, strong and regular in both. Capillary refill is <2 seconds. Skin appears to be normal in both.
HEAD, FACE, NECK: Neck veins visible but not distended in both patients. Pt 1 pupils are at 6 and reactive. Pt 2 pupils are at 5 and reactive.

CHEST: For both equal rise and fall of the chest with breathing. No accessory muscle use. Heart tones normal – S1 and S2 noted. Breath sounds clear and equal bilaterally.

ABDOMEN: No pulsating masses. Both complain of slight tenderness on palpation – diffuse.

PELVIS: Normal.

LEGS: No pedal edema.

UPPER EXTREMITIES: Equal pulses. No edema.

BACK: Breath sounds clear and equal bilaterally.

GCS: 15 for both.

EMT-PARAMEDIC AND BEYOND

VITAL SIGNS: Pt 1 BP: 164/86, P:108 and strong and regular, R 20 with normal effort. O2 sat 99%. ECG **Sinus Tachycardia.**

Pt 2 BP: 146/90, P: 110 and strong and regular, R: 24 with normal effort. O2 sat 100%. ECG same as mother's.

SAMPLE: The husband says he came home from work and found them both in bed, so he called EMS. He says he thinks they "got some bad food." All three family members had turkey and dressing the day before. Neither patient has had any prior illnesses or takes any meds or has any allergies.

(Critical intervention with immediate removal of all patients and bystanders from environment. Then high flow O2 for both. IV's TKO. Contact of fire department or law enforcement to secure area.)

LOC/GCS: Both still alert and oriented.

AIRWAY: Still open

BREATHING: As long as pts removed and O2 initiated, respiratory status remains the same and pts begin to say they feel better.

CIRCULATION: As long as pts removed and O2 initiated, pulses remain strong and skin condition good.

REASSESSMENT: Pts complaints will decrease with appropriate care and BP's will go down some as will pulses. If no appropriate interventions, crewmembers and bystander will all become extremely sleepy and die.

GOALS: Recognition of likely cause of situation to be related to carbon monoxide poisoning.

As soon as situation is recognized, prompt removal of all to clean air environment necessary. Notification of fire department and law enforcement necessary to secure area and trace source.

High flow O2 is mainstay of care.

SCENARIO SIX

Your call is for a 72 year-old male who awakened from sleep about 20 minutes ago with shortness of breath.

SCENE SAFETY: Secure

GENERAL IMPRESSION: The patient appears to be anxious and having trouble breathing.

LOC: He is awake, alert, and extremely anxious.

CHIEF COMPLAINT: "I can't breathe..."

AIRWAY: Open

BREATHING: Respirations are labored and gasping and he is unable to speak more than 3 words at a time.

CIRCULATION: Radial pulses are present but are weak and irregular. Capillary refill is borderline. Skin is pale, cool and clammy.

EMT-PARAMEDIC AND BEYOND

HEAD, FACE, NECK: Neck veins are obviously distended. Pupils at 6 and slow but reactive.

CHEST: Equal rise and fall of the chest with breathing. Accessory muscle use noted. Heart tones with possible gallop noted. Breath sounds reveal rales and wheezing throughout the lung fields.

ABDOMEN: No pulsating masses or other.

PELVIS: Normal.

LEGS: Pitting edema x 2

UPPER EXTREMITIES: Equal pulses. No edema.

BACK: Breath sounds heard more clearly.

GCS: 15

VITAL SIGNS: BP: 184/104, P: 124, weak and regular, R 24, labored and gasping. O₂ sat 80%. ECG **Sinus tachycardia**

SAMPLE: S/S as given. No allergies. Pt has a history of chronic essential hypertension and suffered an MI about 6 months ago. He tells the crew between breaths that he has been suffering episodes of difficulty breathing at times during the night for several weeks (PND) but these has previously resolved when he sat on the side of the bed with his feet dangling about 10 minutes. He ate a normal meal at supper last night.

(Critical intervention with high flow O₂, IV NS TKO, High Fowler's position. Nitro and ASA should be given very early in contact. Lasix to be considered as soon as they hit the truck.)

LOC/GCS: Becoming confused

AIRWAY: Still open

BREATHING: Respiratory distress seems to be worsening. O₂ sat now 78%.

CIRCULATION: Radial pulses have disappeared; no brachial or femoral, carotid is weak and faster than before. Skin is pale and moist.

VITAL SIGNS: BP: 150/70, P 140 with ECG rate increasing. R 30.

(Critical intervention now to nasally intubate or consider oral intubation with RSI.)

REASSESSMENT: Patient's condition will improve if critical interventions added at appropriate times. Otherwise, pt can deteriorate.

GOALS: Recognition of CHF with emergent setting.
High flow O₂ early and then intubation as pt deteriorates.
IV TKO.
Nitro, ASA and possibly Lasix indicated.

SCENARIO SEVEN

It is an extremely frigid, wintry day. All the lakes have been frozen for about 2 days. You are called to a local pond on a report of a drowning. Bystanders tell you that a 19-

EMT-PARAMEDIC AND BEYOND

year-old female was sliding around, playing, on the ice and then fell through about 30 minutes ago. The fire department just located her and is bringing her ashore with CPR in progress.

SCENE SAFETY: Secure as long as the crew stays on the shore.
GENERAL IMPRESSION: The patient is pulseless and apneic.
LOC: Unresponsive
CHIEF COMPLAINT: The patient is unresponsive.
AIRWAY: Open
BREATHING: None
CIRCULATION: Pulses are absent. Skin is pale, bluish and extremely cold and a little hard.
HEAD, FACE, NECK: Neck veins are not scene. Pupils at 8 and non-reactive.
CHEST: Equal rise and fall of the chest with ventilations with BVM. Heart tones not heard. Breath sounds hard to hear with ventilations..
ABDOMEN: No pulsating masses or other.
PELVIS: Normal.
LEGS: No pedal edema. Cold and blue.
UPPER EXTREMITIES: Cold and blue. No pulses. No edema.
BACK: No obvious trauma
GCS: 3

VITAL SIGNS: BP: 0, P: absent without compressions, R 0. O2 sat 90%.
ECG fine Vfib.

SAMPLE: bystanders know nothing else about the pt.

(Critical intervention starts with spinal immobilization with continued ventilations – preferably with a pocket mask until can get into ambulance and use warm, humidified O2. Keep pt level and handle gently. Remove all wet clothing and wrap in warm blankets. Defib x 3 – no change. Establish IV with warmed NS using increased rates. No heat packs due to afterdrop and resultant vasodilation and release of toxins to central circulation. Continue CPR.)

LOC/GCS: Still unresponsive.
AIRWAY: Still open
BREATHING: No breathing.
CIRCULATION: No change.
VITAL SIGNS: No change.

REASSESSMENT: Patient's condition will remain unchanged unless meds are given or more shocks are given. Then patient will deteriorate to asystole and not change.

GOALS: Recognition of potentially resuscitatable situation.
Recognition of indication for spinal immobilization – quickly.

EMT-PARAMEDIC AND BEYOND

Removes all wet clothing inside ambulance and wraps in blankets – unless further out – then must quickly be done in field.

Ventilations with pocket mask for warmth and humidification until warmed, humidified O₂ is available.

Defib x 3 only with no further shocks.

IV with warmed IV fluids.

No meds due to build up of toxic levels.

Handle gently and keep patient level at all times.

CPR is mainstay with warming using warm blankets, warm environment, warm O₂ and warm IV fluids.