PEDIATRIC/SPECIAL POPS SCENARIOS

SCENARIO ONE

You are called to a local apartment complex to evaluate a pregnant female with vaginal bleeding. Pt. is 24 years old.

SCENE SAFETY: Secure
GENERAL IMPRESSION: The patient is lying on her right side on the bed.
LOC: She is conscious but is not oriented to place and time if but crew must ask pt appropriate questions to determine this.
CHIEF COMPLAINT: "I just don't feel good." Pt denies pain or having contractions if asked.
AIRWAY: Open.
BREATHING: Slightly fast, shallow respirations.
CIRCULATION: Radial pulses are absent. Carotid pulse is weak and regular and fast. Capillary refill is >2 seconds. Skin is pale, cool and moist.
HEAD, FACE, NECK: Neck veins visible but not distended. Pupils at 6 and reactive. Skin on face is moist and pale.
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: Distended from pregnancy and baby can be readily palpated.
PELVIS: No signs of crowning or anything noted from vagina.
LEGS: No pedal edema. No pulses present.
UPPER EXTREMITIES: No pulses. No edema.
BACK: Breath sounds clear and equal bilaterally.
GCS: 14

VITAL SIGNS: BP: 76/50, P: 128, weak and regular, R 26 and shallow but regular. O2 sat 92%. ECG **Sinus tachycardia.**
SAMPLE: Pt's sister is available to give information concerning present event. She says that approximately 1 hour ago, the patient began bleeding very heavily. She denied pain, even then. She says that the patient was watching her other son play on the swing when it began. Patient became weak, came inside and laid down on the bed. Patient is G2P1 and has had no complications with either of her pregnancies. She has no significant PMH, takes prenatal vitamins, and is allergic to Sulpha drugs.

(Critical intervention with O2, large bore IV's x 2 with fluid challenges and then maintain BP. Consider use of leg sections of MAST is acceptable. Position pt

immediately to left side. Rapid transport to facility with capability of surgical interventions for pregnancy complications.)

LOC/GCS: Still confused.

AIRWAY: Still open

BREATHING: Symptoms **getting better if patient is treated appropriately but bleeding still present.** O2 sat now 98%.

CIRCULATION: Radial pulses will be present and weak if treated appropriately.

VITAL SIGNS: BP: 90/62, P is about 110. **Sinus tachycardia**. R 22.

REASSESSMENT: All symptoms will get progressively better if treatment is appropriate. If not, pt will deteriorate to unconsciousness with carotid getting progressively weaker and bleeding getting worse.

GOALS: Rapidly assess that this is an emergent OB patient suffering probably placenta previa.

Rapid recognition of need for high flow O2 and pt positioning on left side, and well as IV fluid replacement. Short scene time and rapid transport.

<u>SCENARIO TWO</u>

Fire department is on scene performing CPR on a 4 year-old male who fell into a swimming pool and was submersed for 2 minutes.

SCENE SAFETY: Secure. The patient is lying in a pool of water beside the pool, dressed in shorts and no shirt, and a fireman is doing CPR.

GENERAL IMPRESSION: CPR in progress.

LOC: Unresponsive

CHIEF COMPLAINT: Pt has no complaint. CPR in progress.

AIRWAY: Vomitus in back of airway noted.

BREATHING: None present

CIRCULATION: No radial or carotid pulse. Skin is white and cold. No lividity noted and no rigor mortis.

HEAD, FACE, NECK: Neck veins not visible. Pupils at 7 and non-reactive.

CHEST: Equal rise and fall of the chest with ventilatory assistance. No heart tones heard. Breath sounds clear and equal bilaterally with ventilations with BVM or pocket mask.

ABDOMEN: Normal.

PELVIS: Normal.

LEGS: No pulses. No trauma.

UPPER EXTREMITIES: No pulses. No trauma.

BACK: No trauma noted.

GCS: 3

VITAL SIGNS: BP: 0, P: 0, R 0. ECG **Asystole – agonal beat.**
SAMPLE: Pt's mother says her son was chasing a ball beside the pool and lost his footing and fell in. She was inside answering the telephone and saw it from the patio door. She jumped in and pulled him out, but he was already in cardiac arrest. She called Fire Department and then started CPR.
(Critical interventions begin with CPR, removing victim from wet clothing and area, intubation and IV attempts. First attempt at intubation will be unsuccessful and pt has vomiting during attempts. Unable to establish IV. Epinephrine 0.1 mg/kg of 1:1,000ETT.)

LOC/GCS: Unresponsive
AIRWAY: Open
BREATHING: Chest rises equally with ventilatory assistance.
CIRCULATION: Carotid pulse present with chest compressions.

REASSESSMENT: Pt will remain without change.

GOALS: Assessment of breathing and pulse as soon as arrive.
Immediate recognition of need for airway suction.
Continuation of CPR without delay.
Strip wet clothing, remove pt from puddle of water and wrap in warm blankets.
Quick look to determine rhythm.
Intubate with suction.
I/O to be established when IV unsuccessful.
Meds starting with Epinephrine at 0.1 mg/kg ETT and then same dose and concentration I/O.
CPR continued throughout.

<u>SCENARIO THREE</u>
You are dispatched to a report of an "unconscious two year-old, possible overdose."

SCENE SAFETY: You note a hysterical woman in her 60's running out of the house toward you.
GENERAL IMPRESSION: The woman is carrying a flaccid, obviously unresponsive, 2 year-old.
LOC: Unresponsive to pain.
CHIEF COMPLAINT: Child has no complaint.
AIRWAY: Open.
BREATHING: Slow and irregular respirations.
CIRCULATION: Radial pulses are absent. Capillary refill is >2 seconds. Skin is pale with cyanosis in areas.

HEAD, FACE, NECK: Neck veins visible but not distended. Pupils at 8, equal and slowly reactive. Skin on face is gray with cyanosis around lips.
CHEST: Equal rise and fall of the chest with breathing. No accessory muscle use. Heart tones normal but slow– S1 and S2 noted. Breath sounds clear and equal bilaterally.
ABDOMEN: No pulsating masses or other.
PELVIS: Normal.
LEGS: No pedal edema. No distal pulses. Skin is pale with cyanosis in nailbeds. No muscle tone.
UPPER EXTREMITIES: No distal pulses. No brachial pulse. Cyanosis in nailbeds. No muscle tone.
BACK: Breath sounds clear and equal bilaterally.
GCS: 3

VITAL SIGNS: BP: unobtainable, P: 30 and weak at the carotid, R 8 and shallow but regular. O2 sat 89%. ECG **Complete AV Block.**
SAMPLE: Grandma says she put the child down for a nap about 40 minutes ago. About 10 minutes ago, she checked on him and found him on the floor, unresponsive, with a bottle of her "heart pills" beside him The pill bottle is for Isoptin 120 mg, and the bottle of 60 pills is empty. She says the child has no medical problems, takes no meds, and has no allergies. She says he weighed 25 pounds at the pediatrician's office last week for his checkup.

(Critical interventions with ventilatory assistance with high flow O2 and BVM, intubate, blood glucose at 100 mg/dL, IV fluid boluses at 20 ml/kg, and Trendelenburg. Pacing or atropine should be considered – but will be ineffective.)
LOC/GCS: Still unresponsive to pain or voice.
AIRWAY: Still open
BREATHING: Now fully supported with ETT and ventilatory assistance**.** O2 sat now 98%.
CIRCULATION: Still no radial pulses Skin is less cyanotic and more pink, but no pulses are present..
VITAL SIGNS: BP: unable to obtain, P is still about 30 **AV Block**.

(More critical interventions now include dopamine – mix 6 mg x body weight into 100 ml and run at 10 mcg/kg/min. Also antidote therapy is calcium chloride 10% solution at 0.2 to 0.25 mL/kg (delivers 5 to 7 mg/kg) infused at no faster than 100 mg/min. Can be repeated once in 10 minutes.)

REASSESSMENT: With above treatment, pt will regain first brachial and then weak radial pulses. His BP will come up to 70/36, pulse up

to 80 and is making attempts to breathe around the tube. If above care is not given, patient will remain the same.

GOALS: Immediate airway support with BVM and 100% O2. Intubate early.

Remembers to evaluate blood glucose.
Treatment for calcium channel blocker OD includes:
Hypotension treatment with IV fluid therapy, attempts to increase heart rate with atropine and/or pacing, and pt positioning.

Dopamine , isoproterenol
Antidote therapy with calcium.

SCENARIO FOUR

You are called to a private residence to "assist the police, medical problem, cause unknown."

SCENE SAFETY: Secure – police are on scene.
GENERAL IMPRESSION: The patient is an approximately 50 year-old female who answers your knock at the door wrapped in aluminum foil with Christmas lights draped across her shoulders. The police are there because the patient called for help, stating that there were arrows flying through her windows. The police tell you there were no arrows and, during their conversations with her, they noticed she was talking to herself and occasionally her answers did not make sense to them. They think this a "problem for EMS." She is agitated, pacing, and clutching at her chest.
LOC: She is awake, alert and oriented to PPTE, and extremely anxious.
CHIEF COMPLAINT: "The arrows started coming into my apartment about an hour ago, and they need to stop!!!!!" If asked if she has any pain, she screams, "Can't you see those arrows??? Stop those damn arrows!!"
AIRWAY: Open.
BREATHING: Deep and regular respirations.
CIRCULATION: She won't let crew touch her initially unless they talk her down. Crew can see that her skin is warm and pink.
HEAD, FACE, NECK: Neck veins visible but not distended.
CHEST: Equal rise and fall of the chest with breathing. No accessory muscle use. Pt won't allow breath sounds or heart tones to be assessed.
ABDOMEN: Nothing obvious from a distance.
PELVIS: Nothing obvious from a distance.
LEGS: No pedal edema obvious from a distance.

UPPER EXTREMITIES: No trauma obvious. Pt has good movement.
BACK: Nothing obvious from a distance.
GCS: 15

Critical interventions include making sure police stay on scene, talking gently to pt and not allowing pt to get between the crew and the exit. If pt is handled correctly, she will cooperate and allow crew to place her on stretcher and evaluate her. If not, pt will become extremely violent and police will have to regain control.)

VITAL SIGNS: BP: 156/92, P: 96 and strong, R 20 and deep but regular. O2 sat 96%. ECG **Sinus rhythm.**
SAMPLE: Signs and symptoms as given. You are unable to get any reliable history from the patient but police find 2 bottles of medicine in her bathroom. One is Risperidal and Tenormin. She won't answer when asked why she takes these meds.

REASSESSMENT: As long as crew handles patient appropriately, she will eventually allow a quiet transport to the local ER for a medical evaluation. If not, she will be totally unmanageable.

GOALS: Recognize need for ongoing scene safety for all involved.
Recognition of potential medical problem underlying what appears to be psychiatric and necessary medical evaluation.
Minimal invasive treatment as anything can set pt off again.
Low stimulus environment.

SCENARIO FIVE

You are called to a local children's chronic care center. A 7 month-old female is pulseless and apneic with CPR in progress. The staff is also ventilating the baby with a BVM. No DNR is available.

SCENE SAFETY: Secure
GENERAL IMPRESSION: The patient is pulseless and apneic.
LOC: Unresponsive
CHIEF COMPLAINT: The child can verbalize no complaint.
AIRWAY: Open.
BREATHING: No breathing without ventilations with BVM.
CIRCULATION: No pulses are present. Skin is cold and pale but no rigor mortis or dependent lividity is present.
HEAD, FACE, NECK: Neck veins are not visible. Pupils at 5 and non-reactive.
CHEST: Equal rise and fall of the chest with BVM ventilations. Heart tones not heard.
ABDOMEN: No pulsating masses or other.

PELVIS: Normal.
LEGS: No pedal edema. No distal pulses.
UPPER EXTREMITIES: No pulses. No edema.
BACK: No trauma.
GCS: 3

VITAL SIGNS: BP: 0, P: 0, R 0. ECG **V-fib.**
SAMPLE: The staff will say that this baby had a significant congenital heart defect and severe mental retardation. She has always been in their care since he was about 5 weeks old. Her family has totally disappeared from the picture and she is a ward of the state. The patient was recently taken off of her cardiac meds by her pediatrician to see how she would do without these drugs and she had so many toxicity problems. She is not known to be allergic to any meds. Tonight, the nurse in charge had fed the baby at about 6:30, bathed her at 7:30 and then placed her in bed at 8:00. She had not noticed any problems. About 10 minutes ago, she came in as the baby appeared to be struggling to breathe and was turning blue. She called for other staff to call for an ambulance as the baby then coded. She began CPR.
(Critical intervention with CPR, ventilatory assistance continued with O2, quick check and defib, intubate, IV, Epinephrine and defib again without change. Immediate transport. Lidocaine and defibs. Epinephrine interspersed.)

REASSESSMENT: Skin color will pink after intubation. No other change will occur.

GOALS: Immediate assessment of respirations and pulse and continuation of CPR with BVM and 100% O2.
Immediate quick check and diagnosis of V-fib with stacked shocks at 2j/kg and then 4j/kg x 2.
Intubation and IV.
Epinephrine is mainstay of resuscitation starting with either 0.01 mg/kg 1:10,000 IV or 0.1 mg/kg 1:1,000 ETT.
Other doses at 0.1 mg/kg 1:1,000 IV or ETT.
Lidocaine still preferred second line with same dosage and maximum ranges.