# MATERNAL ARREST

## FIRST RESPONDER

- Activate CODE BLUE
- Record TIME OF ONSET of arrest
- Place patient SUPINE
- **Start chest compressions** (place hands slightly higher on sternum.)

## SUBSEQUENT RESPONDER(S)

- **DO NOT DELAY DEFIBRILLATION – ATTACH DEFIB PADS!**
  - Remove all internal & external fetal monitors!
- ***MANUAL* Left Uterine Displacement**
- Follow ACLS protocols
- AIRWAY: Ventilate with 100% $O_2$**, secure airway: minimize interruption to chest compressions**. – LMA or BVM if ETT not possible.
  - *No induction meds or paralytics* if unconscious– just intubate. Anticipate swollen OB airway.

**PREPARE FOR IMMEDIATE RECUSCITATIVE C/S: goal < 4min FROM ONSET OF ARREST, AT SITE OF ARREST.**

  - IVs ABOVE diaphragm only, Humeral I.O. if necessary.
  - NICU team for fetal delivery

## POSSIBLE CAUSES

**BLEEDING/DIC**: Atony, Vaginal/Cervical Lac, Retroperitoneal or Intra-abdom bleeding, Coag disorder, AFE, Abruption, AFLP, HELLP/capsule rupture

- ✓ **Run hemorrhage checklist**
- ✓ MTP, *cryo, *may need factor/fibrinogen concentrates
- ✓ Consider ECMO if severe pulmonary edema from DIC & unable to ventilate, or heart failure $^2/_2$ AFE

**EMBOLISM:** Coronary embolism v SCAD, PE, AFE, VAE

- ✓ Consider mobilizing TTE/TEE & ECMO team.
- ✓ **PE**: consider STAT CTA
- ✓ **VAE**: flood field with saline, 100% $O_2$, position pt L lateral, surgical site below heart, TEE, aspirate air from R heart catheter, inotropes
- ✓ **MI/SCAD**: consider STAT PCI → cath lab
- ✓ **AFE:** A-OK tx Atropine 1mg, Ondansetron 8mg, Ketorolac 30mg.
  - Prepare for **DIC & MTP** → **Run hemorrhage checklist**
  - RV → LV failure: consider inotropes: dobutamine, milrinone (*milrinone can give via ETT: 5ml = 1mg bolus)

**ANESTHETICS**: **L.A.S.T** → "*fat emulsion*" in PACU pyxis & continue CPR until ROSC, or initiate cardiac bypass until LA cleared.

- ✓ **L.A.S.T ACLS: REDUCE EPI DOSE: < 1mcg / kg ~ 50-100 mcg at a time****
- ✓ Seizure control with BENZOS
- ✓ **Avoid**: propofol, vasopressin, CCB, BB, & hyperventilation

**HIGH SPINAL** → Supportive care: secure AIRWAY and provide hemodynamic support.

- ✓ *Epi: 10-100mcg doses to effect

**ANAPHYLAXIS:** Supportive: maintain airway & hemodynamic support

- ✓ Epi 10-100mcg IV doses to effect for hemodynamic support (300mcg IM), vasopressin, methylene blue for vasoplegia
- ✓ Hydrocortisone 100-200mg IV, Albuterol, Diphenhydramine ($H_1$), Famotidine ($H_2$)

**CARDIAC DX:** MI/Ischemic heart dx/Cardiomyopathy/Aortic dissection (marfans*)

- ✓ MI/SCAD: ACLS, TTE/TEE, Cath lab → PCI
- ✓ Cardiomyopathy: Inotropes: dobutamine, milrinone, low-dose epi gtt, TTE/TEE. Consider ECMO.
- ✓ Dissection: MTP → cardiac OR

**HTN:** Pre-E/Eclampsia

- ✓ Seizure control with BENZOS
- ✓ **$MgSO_4$- Tox**? NO DTRs?→ TX: Ca Gluconate 30mL 10%, or CaCl 10mL 10% sol'n. *If DTRs present → seek other cause of cardioresp collapse.
- ✓ Secure AIRWAY – expect ++ airway swelling.
- ✓ BP control < 160mmHg to avoid maternal stroke.

**SEPSIS:** IAI, Urologic, IUFD, Pneumonia, etc.. [E-coli, Staph, Strep A*]

- ✓ Supportive care & assess for: DIC, ARDS vs Pulm Edema, TTE/TEE to assess CV fxn

**OTHER**: Hs & Ts

Hypovolemia Hypo/Hyper K+ Hypoxia Hypo/Hyperthermia Hyper/hypoglycemia Tension pneumo Tamponade Thrombosis Toxins