

## **CPR Scenario**

### *Case: PEA due to embolic event*

You are fast-bleeped to the antenatal ward.

Patient: 27 year old primiparous;  
Term +10;  
For induction of labour with vaginal Prostaglandin E2 instillation,  
2<sup>nd</sup> dose just applied;  
Short episode of coughing and chest discomfort;  
Patient now unresponsive.

Initial findings: Pt. not responsive to verbal commands (demonstrate AVPU)  
A - appears clear  
B - no respiratory effort  
C - no central pulse palpable

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Initial management: Absence of signs of life confirmed  
Airway patency (demonstrate)  
Check for breathing (demonstrate)  
Check for circulation (demonstrate)

Call Resuscitation Team [here: including senior  
obstetrician & paediatrician]

Instigate BLS with pocket mask: (demonstrate)

30 chest compressions  
(position, rate, force)  
[N.B. Cardiff wedge, manual displacement of  
gravid uterus!]  
2 ventilations  
(pressure, effectiveness, O<sub>2</sub>, adjuncts)

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Upon arrival of Resuscitation Team:

Apply Guidelines for Adult Advanced Life Support (2005): (demonstrate)

Continue CPR 30:2 until monitor / defibrillator attached [N.B. effectiveness of  
this in term pregnant patient!]

Attach monitor / defibrillator

Assess rhythm: Sinus rhythm, 102bpm, complexes narrow

Continue CPR 30:2

Give Adrenaline 1 mg iv as soon as **vascular access** is achieved

Continue CPR 30:2 until **airway is secured**, then continue chest compressions without pausing during ventilation.

Recheck rhythm after 2 minutes, check for pulse

Continue CPR, give **Adrenaline 1 mg** iv every 3 – 5 minutes (i.e. alternate loops)

Consider **4 Hs** (Hypoxia, Hypovolaemia, Hypothermia, Hyper- / Hypokalaemia etc.)

and **4 Ts** (Tension Pneumothorax, Tamponade, Thromboembolism, Toxic Substances)

[Need to consider peri-mortem caesarean section by four minutes, as effectiveness of CPR significantly reduced by pregnant state of patient]

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After ~ 4 loops: weak central pulse palpable.

Re-assess patient:     Airway secured (ETT)  
                              No respiratory effort  
                              Weak carotid pulse palpable

Post-resuscitation care:

Ventilation (remember: Hypocarbica of pregnancy!)

Circulation:   invasive monitoring (? incl. cardiac output)  
                  Pharmacological support  
                  Maintain prevention of aorto-caval compression syndrome

“Disability”:  
Sedation

Obstetric:     Viability of Fetus  
                  Need for delivery of Fetus before admission to ICU to be determined  
                  Differential diagnosis of collapse: PE / Amniotic Fluid Embolus/CVA.  
                  Therefore: Complications expected (ARDS, DIC, uterine atony...)

Specialties to be involved:   Obstetrics, Anaesthesia, Critical Care, Neonatology, Haematology, radiology

Equipment:

- Resusci Annie
- Pocket mask
- Monitor defibrillator
- Cannulae
- Oxygen mask and tubing
- AMBU bag
- Adrenaline
- Atropine
- Fluid ++
- Cardiff wedge
- ETT and laryngoscope
- 20ml syringe
- GEB/stylet etc
- (Art line 'set')