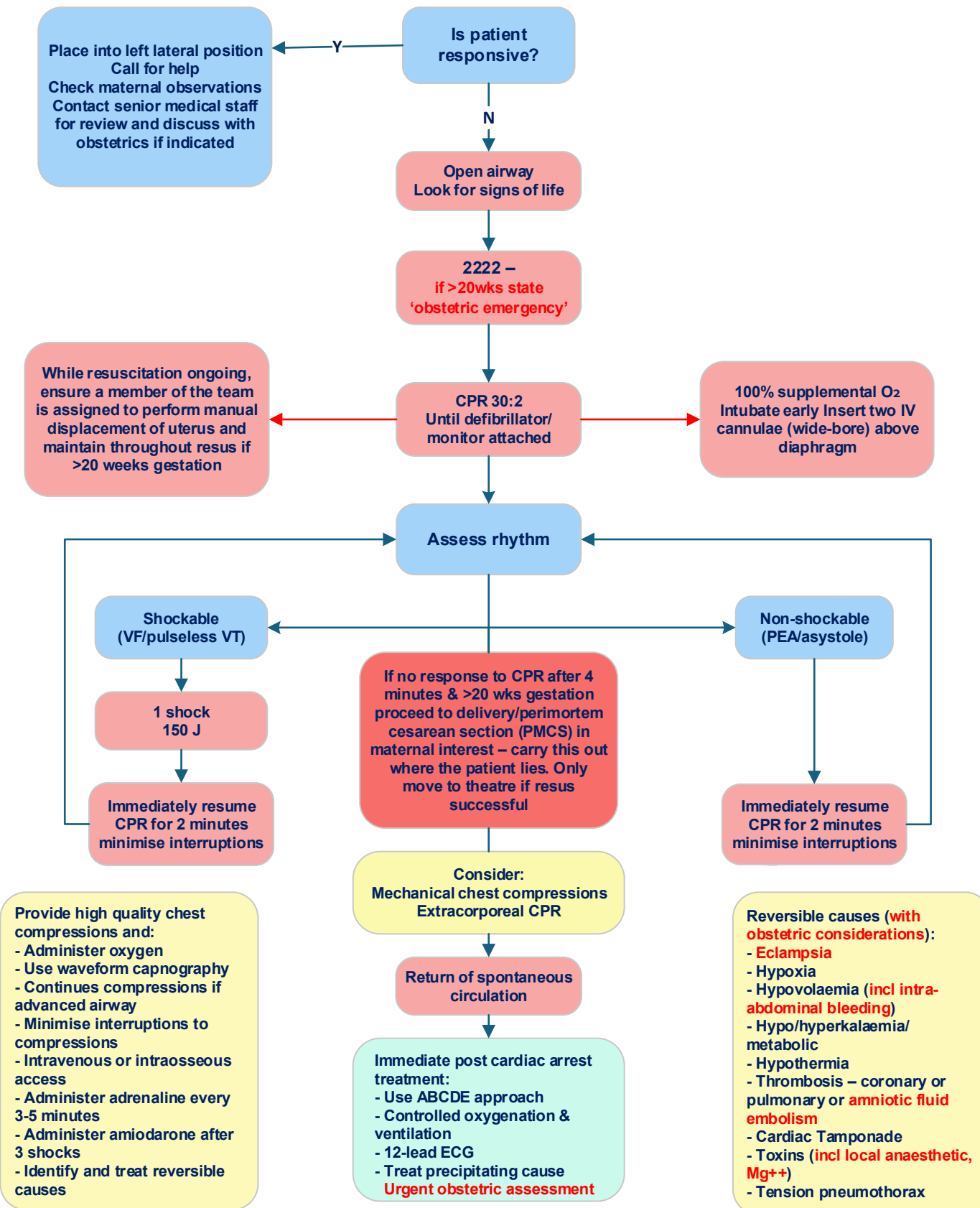


Algorithm for assessing maternal collapse & cardiac arrest

- ! Do not alter or withhold drugs used in resuscitation during pregnancy
- ! Do not alter or withhold appropriate shocks during pregnancy
- ! At the start of the resuscitation, begin planning for peri-mortem c-section to facilitate timely intervention at 4 minutes & perform where patient lies



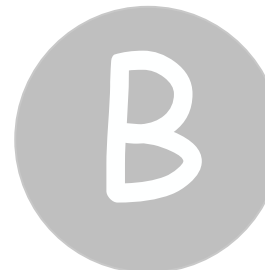
Key considerations and adaptations in the resuscitation of a pregnant woman

Knowledge of the normal physiological changes in pregnancy is important when managing the pregnant woman who has collapsed. In addition to standard A-E approach, the following are key considerations in the resuscitation process. For a comprehensive review of risk of maternal collapse, assessment & management, see the Royal College of Obstetricians & Gynaecologist Guideline Maternal Collapse in Pregnancy & the Puerperium (www.rcog.org.uk/guidance)



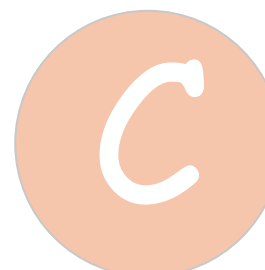
Airway

During pregnancy, difficult intubation & aspiriation are more likely, therefore early protection of the airway is essential. Relaxation of the oesophageal sphincter due to increased progesterone & increased intra-abdominal pressure contribute to increased risk of gastric aspiration. Increased weight of breasts & abdomen and airway oedema can complicate intubation. The Royal College of Obstetricians & Gynaecologists recommend that an experienced anaesthetist perform intubation with a cuffed endotracheal tube.



Breathing

Increases in progesterone leads to increased sensitivity to carbon dioxide resulting in increased respiratory rate and tidal volume. This leads to increased minute ventilation to compensate for increased oxygen demand. In addition, pregnant women can become hypoxic more rapidly due to a 20% increase in oxygen demand of the fetoplacental unit & 20% reduction in functional residual capacity. due to pressure from the gravid uterus. These changes mean optimal oxygenation of the mother is impossible during CPR in pregnancy before delivery.



Circulation

From around 20 weeks gestation, aortocaval compression caused by the gravid uterus significantly reduces venous return and further reduces cardiac output. During cardiac arrest, manual uterine displacement is required to reduce compression of the inferior vena cava and aorta. One member of the resus team should be assigned to carry out manual uterine displacement: from the left side of the patient, place one hand below the uterus on the patients right side and gently pull the uterus up and to the left. IV access should be obtained above the diaphragm. To assist maternal circulation, perimortem c-section should be performed as soon as possible. Planning should commence at the start of the resuscitation



Scalpel

If there is no return of spontaneous circulation within 4 minutes of maternal collapse, a perimortem c-section (PMCS) should be performed in maternal interest. PMCS facilitates improved venous return, cardiac output, the effectiveness of chest compressions, reduces oxygen consumption & assists ventilation. PMCS should be carried out where the woman lies. At the start of the resuscitation, a member of the team should prepare for PMCS. A midline vertical incision (see image) provides rapid access. A scalpel & umbilical cord clamps should ideally be available on resuscitation trolleys