Management of the Pregnant Patient in Critical Care

1. Perform a **pregnancy test** (urinary beta-HCG) on all female patients of child-bearing age admitted to ICU, unless this has been performed and clearly documented earlier in the hospital admission.

2. **Discuss with on-call obstetric and neonatal teams** any critically-ill pregnant patient and arrange an urgent ultrasound. This is to assess whether early delivery is indicated as part of maternal resuscitation, to assess viability of the pregnancy and to guarantee obstetric follow-up.

3. Nurse pregnant patients with significant intra-abdominal mass (typically > 20 weeks' gestation) in a **left-tilted position** using pillows or a wedge. This is to avoid aorto-caval compression and compromise of the utero-placental circulation.

4. Pregnant critically-ill patients requiring intubation are at **high risk of aspiration**. Administer **ranitidine** (50mg iv or 150mg oral) pre-intubation when time allows. Administer **sodium citrate** 0.3M (30ml orally) immediately prior to intubation.

5. In all female, critically-ill patients of child-bearing age, **consider obstetric complications** until pregnancy has been ruled out by a negative pregnancy test. These include:

    a. Eclampsia/pre-eclampsia (hypertension, acute liver failure, seizure, pulmonary oedema)
    b. Amniotic fluid embolus (cardiovascular collapse, coagulopathy)
    c. Antepartum haemorrhage
    d. Pulmonary embolism
    e. Cerebral venous sinus thrombosis (headache and reduced consciousness) – this requires a CT venogram to exclude. A non-contrast CT head is insufficient.
    f. Peri-partum cardiomyopathy, aortic dissection and myocardial infarction
    g. Obstetric sepsis/chorio-amnionitis
    h. Thrombotic thrombocytopenic purpura (thrombocytopenia, microangiopathic haemolytic anaemia, CNS signs, AKI, fever).

6. The obstetric team should liaise with the Midwife Coordinator to provide a midwife, and should arrange for **CTG/continuous fetal monitoring** if indicated.

7. A **peri-mortem caesarean section kit** should be immediately available at the bedspace of any pregnant ICU patient. If the pregnancy is viable, a **neonatal resuscitaire** should be immediately available in the event of peri-mortem caesarean section.

8. **In a cardiac arrest involving a pregnant patient, perimortem caesarean section should be started within four minutes**. The baby should be delivered within five minutes from onset of cardiac arrest.

9. Pregnant women are at high risk of venous thromboembolic disease before and after delivery. Follow standard **NHS Lothian Critical Care VTE Prophylaxis** Guidelines unless an absolute contra-indication exists. Consider additional mechanical thromboprophylaxis.

10. Use the '**Handover Sheet for Obstetric Patients Requiring Admission to General Critical Care'** (available on the NHS Lothian Critical Care Guidelines intranet site). This provides contact numbers for on-call obstetric and obstetric anaesthesia teams, as well as the labour ward coordinator.

Title: Management of the Pregnant Patient in Critical Care	
ID: MPPCCv1.20170129	**Authors:** D Hall, L Wilson, M Beatty
Category: Obstetrics	**Document Version;** 1
Status Draft/Final: Final	**Review Date:** Jan 2019
Authoriser; QIT	**Date Authorisation:** Jan 2017
Date added to intranet:	
Key Words: Pregnancy, pregnant, caesarean section	
Comments:	