1. Pregnant trauma
2. Patient
3. [created by Paul Young 02/10/07]

Aetiology
1. Trauma in pregnancy is a relatively rare event but one that requires a multidisciplinary approach involving trauma surgeons, emergency physicians, obstetricians, neonatologists and other specialists treating trauma conditions to ensure the best outcome for the mother and the fetus.

Predictors of fetal loss include:
1. High injury severity score
2. Elevated base deficit
3. High abdominal or thoracic injury score
4. Abnormal uterine activity
5. Motor vehicle accidents account for more than 50% of maternal trauma and account for 82% of fetal deaths.

Investigation
- Physical examination is identical to that for any trauma patient with additional consideration of specific pregnancy-related findings.
- Determination of presence of pregnancy and gestational age may be approximated from examination of the fundus; an estimate of >24 weeks should prompt immediate uterine and fetal monitoring under the direction of the obstetrics service.
- Vaginal examination to look for the presence of blood or amniotic fluid should be performed; however, if vaginal bleeding is evident in the 2nd or third trimester examination should be deferred until placenta previa is excluded.

Treatment
- Physical examination is identical to that for any trauma patient with additional consideration of specific pregnancy-related findings.
- Determination of presence of pregnancy and gestational age may be approximated from examination of the fundus; an estimate of >24 weeks should prompt immediate uterine and fetal monitoring under the direction of the obstetrics service.
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Outcome
-Disposition will depend on injuries - consideration given to trauma centre, facility with obstetric & neonatal care.

Key issues:
1. Two patients (fetus and mother)
2. Resuscitation of the mother will resuscitate the fetus
3. The main cause of fetal death is maternal death
4. Fetal viability is possible after 23-24 weeks
5. One head engages the fetus is prone to acceleration / deceleration injuries
6. Pregnant trauma patients are more likely to be young, to misuse alcohol & other substances, to be victims of domestic violence (all these things place them at risk of preterm labour and low birth weight).

Symptoms
- Usual history for trauma plus dates and rhesus status

Signs
- Primary survey issues include:
  - Difficult airway
  - Supine hypotension requiring manual displacement of the uterus
  - Use left lateral tilt position in suspected cervical trauma

Bloods:
- Clinician needs to be aware of "normal" laboratory values during pregnancy:
  1. Hct 32-42%
  2. WCC 5-12
  3. Arterial pH 7.40-7.45
  4. HCO3 17-22mEq/L
  5. PCO2 25-30mmHg
  6. Fibrinogen >400 mg/dL
- Check rhesus status
  - Kleihauer-Betke test can be used to determine whether fetal blood has entered the maternal circulation

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Specific pregnancy-related complications of trauma are:
1. Placental abruption
2. Rupture of membranes
3. Premature labour
4. Feto-maternal haemorrhage
5. Fetal distress

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