Obstetric Haemorrhage.
A review.

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Obstetric Haemorrhage

- Leading cause of maternal deaths
- Can be sudden and unexpected
- Few reliable indicators
Classes of Obstetric Haemorrhage

Antepartum (APH)
- Bleeding from the genital tract that occurs after the 20th week gestation and before delivery

Postpartum (PPH)
- Blood loss >500mL during or post-delivery
- Haemodynamic instability due to blood loss post-delivery

Severe postpartum
- Blood loss >1500mL
- Need for red cell transfusion or hysterectomy
Antepartum haemorrhage

Common causes:

♦ Placenta praevia

♦ Placental abruption

♦ Uterine rupture
Placenta praevia

Placenta attaches to the uterine wall in the lower segment of the uterus and covers all or part of the cervix.
Placenta accreta

- Placenta is abnormally adherent to the uterine wall
Placental abruption

Premature separation of a normally sited placenta from the uterine wall
Causes of PPH – The Four T’s

- **Tone – Uterine Atony**
  - Failure of the uterine muscle to contract normally following delivery

- **Tissue – Retained placental tissue**
  - Includes placenta accreta

- **Trauma – Genital tract trauma**
  - Includes uterine rupture, uterine inversion, cervical lacerations, episiotomy

- **Thrombin – Coagulation disorders**
  - Includes placental abruption, HELLP (haemolysis, elevated liver enzymes, low platelets) syndrome, pre-eclampsia, amniotic fluid embolism
Why do obstetric patients bleed?

- Increased blood supply to uterus and genital tract
- Normal contraction and retraction reduces blood flow post delivery
- Any interference with normal contractions will result in more bleeding than usual
  eg.’s uterine atony, placenta accreta
Why do obstetric patients bleed?

In massive transfusion, coagulopathy can be due to:

- Haemodilution
- Hypothermia
- Acidosis
- Fractionated blood products
- DIC
- Hypocalcaemia
Why do obstetric patients bleed?

Amniotic fluid embolism (AFE)

- Increased Factor X activity when amniotic fluid (AF) mixed with maternal blood

- AF contains plasma proactivator → generates thrombin → coagulopathy composed of FDP’s

- Excess FDP’s are implicated in decreased uterine contractility
A Westmead PPH

- 35 yo RA was diagnosed as Placenta praevia Grade IV at 19/40

- RA was admitted at 26/40, 29/40 and 30/40 for APH – stabilised then sent home

- At 38/40, RA had an elective c. section for placenta praevia – 2 RC’s for 2L blood loss

- A healthy baby girl was delivered
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1 hr later:

- profuse PV bleeding, hypoxic, hypotensive and had to be resuscitated with adrenaline
- Hb 94 g/L; PT 23 secs; APTT: 89 secs; Fib: 65
- 6x RC given before RA taken back to theatre for an obstetric TAH
- during TAH: 8x RC, 6x FFP, 2x plt, 13x cryoppt, 2000IU Biostate, 1000IU Prothrombinex and 6mg Novo7
- approx. 6L of blood lost
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- 3 days in ICU where she remained haemodynamically stable

- A further 3 days spent in Maternity Ward before being discharged

- It was determined that RA had gone into PPH secondary to AFE and DIC