



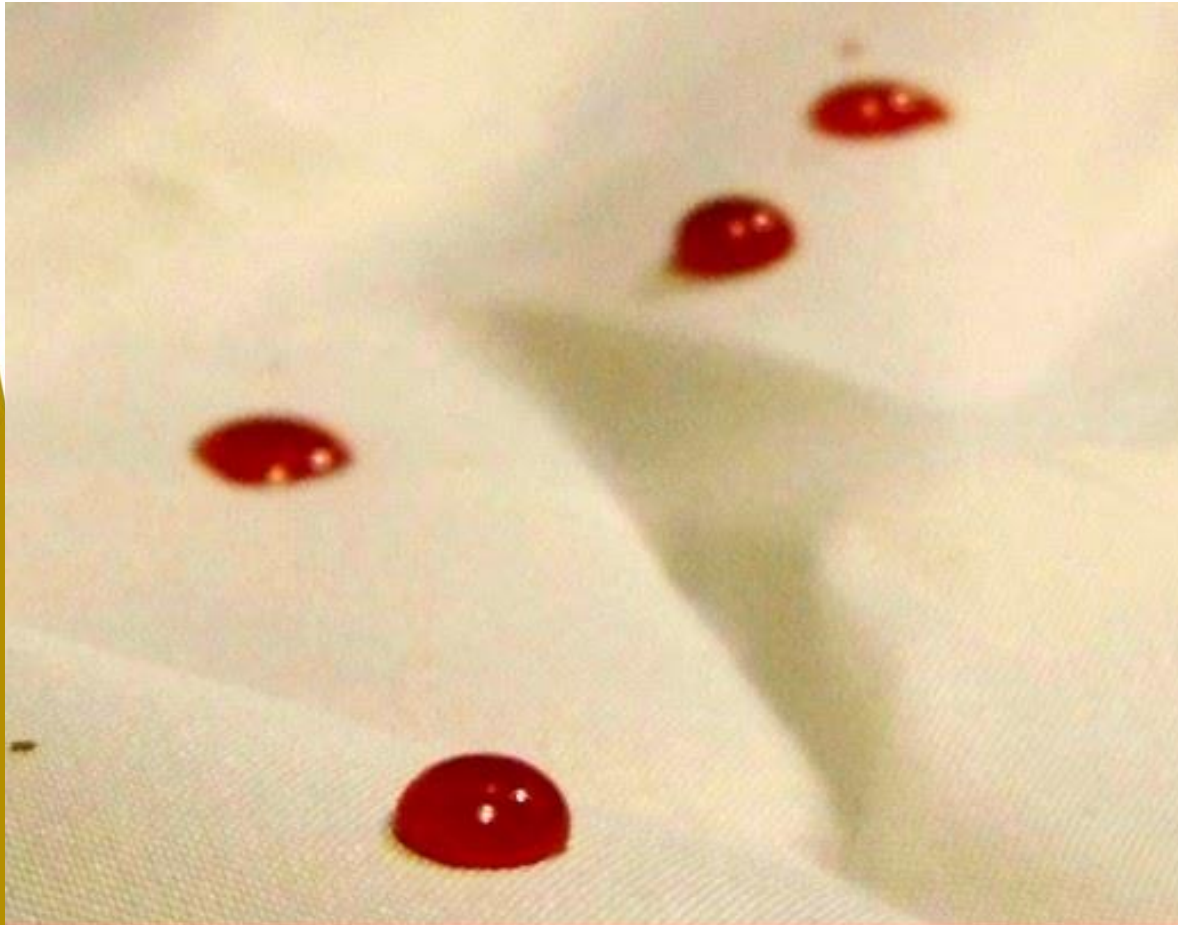
**GRADUATE
ENTRY
MEDICAL
SCHOOL**

Bleeding during (and after) Pregnancy

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BLEEDING DURING PREGNANCY

WHEN TO WORRY

Session Objectives:

- Appreciate the circulatory impact of pregnancy on the body
- List causes of Ante partum & Post partum Haemorrhage
- Understand their pathophysiology
- Discuss the assessment & management of pregnancy related haemorrhage

Gravidity & Parity

- **Gravidity** is defined as the number of times that a woman has been pregnant
- **Parity** is defined as the number of times that she has given birth to a foetus with a gestational age of 24 weeks or more, regardless of whether the child was born alive or was stillborn

Circulatory impact of pregnancy:

- Normal female circulating volume= 4-5litres
- Increase by up to 50% in pregnancy
- Influenced by- patient size, gravidity, parity, number of foetuses
- Necessary because- metabolic needs of foetus, perfuse maternal organs, compensate for delivery blood loss
- Vaginal delivery= 500mls blood loss
- Caesarean section= 1litre blood loss
- As uterus contracts blood shunted back to maternal circulation preserving maternal haemostasis
- Heart size increases by 10-15%, heart rate increases by 15-20bpm

Bleeding in early pregnancy:

Miscarriage

- Threatened
 - Incomplete
 - Inevitable
 - Complete
 - Missed
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- Associated with abdominal pain/ discomfort and PV bleeding

2nd & 3rd Trimester bleeding:

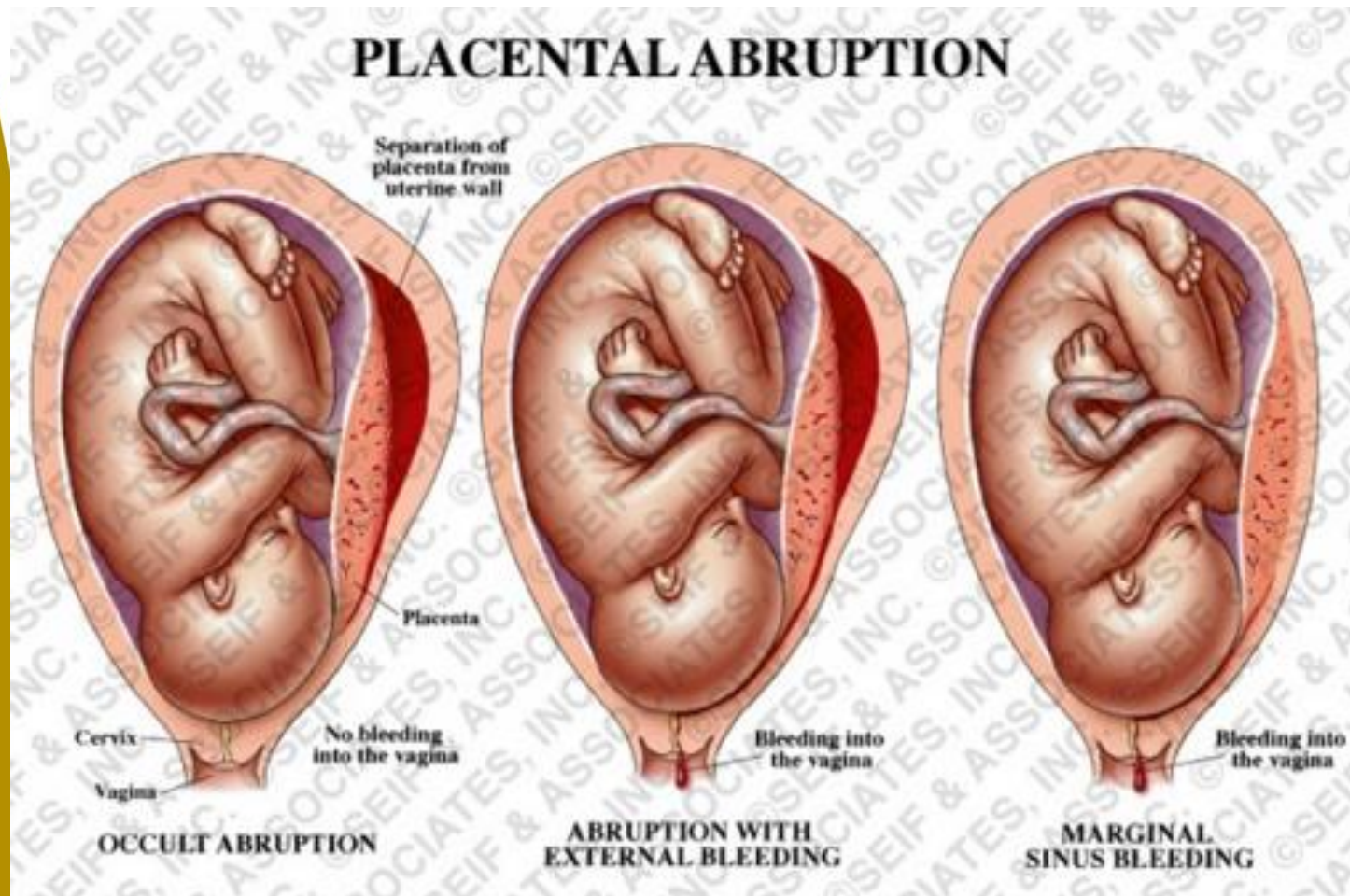
- Complications of bleeding increase as gestational time lengthens
- Larger circulating volume
- Compensatory mechanisms
- Lose 40% of circulating volume before decompensation

Major causes of significant antepartum haemorrhage:

- Placental abruption
- Placental praevia
- Uterine rupture

Placental Abruption:

- Premature separation of normal placenta from uterine wall
- Most common in 3rd trimester but can occur in 2nd trimester
- Prevalence= 1:100 full term pregnancies
- Causes: maternal hypertension, trauma (deceleration force), assault, fall's, infection
- Contributing factors: Illicit drug use, alcohol, smoking, multiparous women, previous abruption



S & S:

- Bright red PV bleeding- but may not emerge through cervix
- Severe abdominal pain
- Absence/ decreased foetal movements
- Signs of shock- may be out of proportion to apparent blood loss
- Tender abdomen
- Rigid uterus
- Absent foetal heart sounds

Placental praevia:

- Placenta implanted low in uterus and partially or completely obscures cervical canal
- Leading cause of PV bleeding in 2nd & 3rd trimester
- Majority of problems at term as cervix dilates
- Risk factors: maternal age (30 years + = 3 times more likely than 20's), multiparity, previous caesarean section/ intrauterine surgery/ praevia, smoking
- Prevalence= 4-5 per 1,000 births
- Maternal mortality- 0.03%
- Complications- disseminated intravascular coagulation, low birth weight, haemorrhage

Placenta Previa



Total

The placenta completely covers the cervix.



Partial

The placenta is partially over the cervix.



Marginal

The placenta is near the edge of the cervix.

Placenta previa is a condition in which the placenta is attached close to or covering the cervix (opening of the uterus). Placenta previa occurs in about one in every 200 live births. There are three types of placenta previa:

S & S:

- Painless bright red vaginal bleeding
- Foetal blood supply not immediately jeopardised therefore normal foetal movements and heart sounds
- Soft non-tender uterus
- Usually aware of condition following ultrasound scans

Uterine rupture:

- Occurs during labour
- Risk factors- multiple children, uterine scarring e.g. previous caesarean section

S & S:

- Active labour
- Contractions may have slackened after very strong and painful contractions
- Weak, dizzy, signs of shock- tachycardia, sweating, hypotension
- May or may not have significant vaginal bleeding

Assessment:

- When did it start?
- Onset whilst active or at rest?
- Amount of blood loss? Number of sanitary towels? Clots?
- Pain- yes/no
- Orthostatic vital signs- changes may indicate significant bleeding contrary to physical evidence of bleeding
- Gravidity/ Parity
- Gestational length/ due date
- Obstetric & gynae history/ complications
- Previous deliveries- normal, complicated, caesarean
- Concerns found in this pregnancy
- Number of fetuses
- Known orientation of baby

Management:

- Any time critical features- correct ABC's & rapid transport
- 100% oxygen target saturation >94%
- Left lateral position (15-30 degree tilt) if supine
- IV access
- Baseline vitals and reassess
- Maternity/ sanitary pads
- Remember: maternal circulation shunts blood away from foetus to maintain maternal haemostasis therefore foetus may be in shock before mother shows signs of shock

Postpartum Haemorrhage:

- Interference with contractions of interlacing uterine muscle fibres post placental delivery promotes PPH
- **Primary PPH**
 - Blood loss in excess of 500ml within 24hrs of delivery
 - Four “T”s – Tone, Trauma, Tissue, Thrombin
- **Secondary PPH**
 - Bleeding from 24hr to 6 weeks post delivery
 - Infection (endometritis), retained products, subinvolution of placental site, placenta accreta

PPH causes:

- Prolonged labour/ multiple births= tired uterus
- Retained products of conception- uterus unable to fully contract unless empty
- Multiparity- muscle tissue gradually becomes fibrous and therefore cannot contract
- Multiple pregnancy: larger placental site & overstretched uterine muscle= reduced contraction
- Placental praevia: lower uterine muscle do not contract efficiently
- Full bladder- may prevent contraction

PPH management:

- Uterine massage if placenta delivered
- Place baby to mothers breast
- Pre-alert receiving hospital
- IV access
- Manage external bleeding (perineal tears) if present

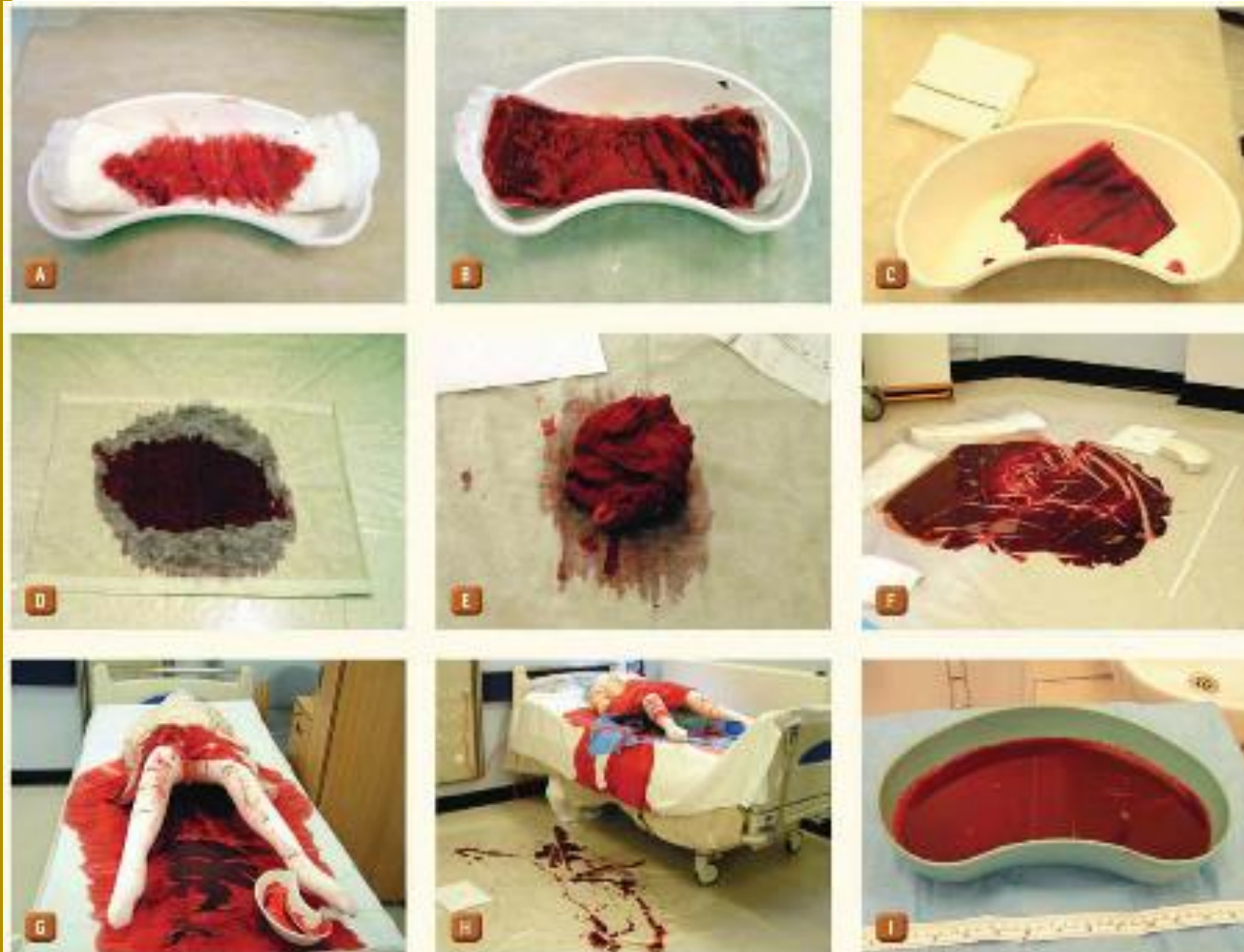


Figure 37-8 Visual guide to estimate blood loss from an obstetric haemorrhage. **A.** Soiled Sanitary Towel (30 ml). **B.** Soaked Sanitary Towel (100 ml). **C.** Small Soaked Swab 10 x 10 cm (60 ml). **D.** Incontinence Pad (250 ml). **E.** Large Soaked Swab 45 x 45 cm (350 ml). **F.** 100 cm Diameter Floor Spill (1500 ml). **G.** PPH on Bed only (1000 ml). **H.** PPH Spilling to Floor (2000 ml). **I.** Full Kidney Dish (500 ml).

Questions??



References:

- <http://www.sahealth.sa.gov.au/wps/wcm/connect/dc3373804ee5623ca94dadd150ce4f37/Postpartum-haemorrhage-secondary-WCHN-PPG-20032012.pdf?MOD=AJPERES&CACHEID=dc3373804ee5623ca94dadd150ce4f37>
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- Caroline, N. (2013). *Nancy Caroline's emergency care in the streets*. Sudbury, Mass.: Jones & Bartlett Learning.
- Hoveyda, F. and MacKenzie, I. (2001). Secondary postpartum haemorrhage: incidence, morbidity and current management. *British Journal of Obstetrics and Gynaecology*, 108(9), pp.927-930.

