Managing Postpartum Haemorrhage

Can we develop National Guidelines?
Why manage PPH?

- Leading cause of maternal morbidity and mortality worldwide
- Relatively common (3.9% and 6.4%)
- Case fatality 1: 600 to 800
- Accounts for about 10% of maternal deaths
Why guidelines?

- Common
- Requires rapid escalating response
- Multiple aetiologies
- Complex care pathways
- Debate
Pitfalls of National Guidelines

- One size may not fit all
- Primary versus specialised care
- Some treatments are not well studied but are in routine clinical use
- Serious outcomes rare but traumatic
- Definitions and thresholds arbitrary
What needs to be in a PPH guideline?

- Prevention
- Definitions
- Thresholds for action
- Defined protocol for primary emergency response
- Fluid and drug recommendations
- Obtaining blood
- Specific treatment information
- Management of accreta
- Recommendations for training
Prevention/planning

- Define risk factors
  - Previous PPH, BMI, hypertension, IOL
  - Tone, Trauma, Tissue, Thrombin
  - Can develop intrapartum

- Define what to do for women with no defined risk factors

- Define what to do for women with risk factors

- Prevent unnecessary CS!
Third stage management questions – Cochrane Review Protocol

- Push or pull?
- When to clamp the cord?
- Ecbolic or not?
- Which ecbolic, what dose and when?
- Draining the placenta

- “Active Management” reduces risk
Primary prevention - ecbolics

- Oxytocin v ergometrine
  - Heterogeneous dose regimes
  - No difference in blood loss or transfusion
  - Syntometrine
    - less risk of additional Rx
    - More adverse effects

- Oxytocin v misoprostol
  - No difference in blood loss or transfusion
  - Misoprostol more adverse effects
Definitions

- PPH > 500ml
- Major PPH
  - Haemodynamically unstable
  - Blood loss of >1000ml from genital tract
  - >10% change in haematocrit between admission and the post partum period
  - OR
  - Requires a transfusion of red blood cells
Thresholds

☐ When to call for unit staff to help
☐ When to call a code
☐ (When to transfer out)
☐ When to call in senior staff
☐ When to give blood
☐ When to give uncrossmatched blood
☐ When to go to theatre
☐ When to consult a Haematologist
Emergency Response

- Assess and record
- Arrest and record
- Replace and record

- Simultaneous and ongoing
- Requires a team
Example of emergency response

- CALL FOR HELP
- ASSESS
  - Vitals, 4Ts, volume
  - bloods (FBC, G&S, Coag)
- ARREST
  - Massage, synto. infusion, Foley, 2nd line drugs
  - Bimanual compression, aortic compression
- REPLACE
  - 2 large bore IVs, rapid crystalloid, warmed
  - Get blood
Fluids and drugs

- Crystalloid versus colloid
- Warming
- First/Second/Third line drugs
  - Probably:
  - Synto infusion/syntometrine/PG
  - Concerns re misoprostol as first line
    - Small numbers, no benefit over oxytocin
    - May cause harm if no prior ecbolic in 3rd stage
How to get blood

- A National Guideline cannot be specific since each unit is different

- But principles are
  - Each unit must have a defined process
  - All staff must know how to access blood quickly - including uncrossmatched blood
  - Early crossmatch for those with a known positive antibody screen
  - Massive Transfusion Protocol
  - Process if blood is refused
Massive Transfusion

- Trauma literature suggests
  - Whole blood OR
  - 1:2 red cells to FFP
  - Frequent monitoring of coagulation

- Primary coagulopathies in obstetrics
Specific treatments

- Uterine tamponade
- B-Lynch brace suture
- Vessel ligation
- Hysterectomy
- Embolisation
- Factor VIIA
- Tranexamic Acid
Accreta

- An increasing problem
- Placental site in relation to scar
- Need to have low index of suspicion
- Multidisciplinary planning
- Planned hysterectomy may be safer
Training

- All units should have regular training
  - Preparation
  - Recognition
  - Primary management
  - Teamwork and communication
Learning from deaths/near misses

- Recognition of risk
- Forward planning
- Recognition of hypovolaemia
- Communication in an emergency