**LABOUR WARD LESSONS OF THE WEEK**

Pillars of Patient Blood Management

<table>
<thead>
<tr>
<th>PILAR ONE</th>
<th>PILAR TWO</th>
<th>PILAR THREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimise RBC Mass</td>
<td>Minimise Blood Loss</td>
<td>Manage Anaemia</td>
</tr>
</tbody>
</table>

**PREOPERATIVE**
- > detect/treat anaemia & iron deficiency
- > treat underlying causes
- > optimise haemoglobin
- > cease medications
- > identify, manage & treat bleeding/bleeding risk
- > minimise phlebotomy
- > plan/rehearse procedure
- > patient’s bleeding history & develop management plan
- > estimate the patient’s tolerance for blood loss
- > optimise cardiopulmonary function
- > time surgery with optimisation of erythropoesis & red blood cell mass
- > meticulous haemostasis/ surgical/anaesthetic techniques
- > cell salvage techniques
- > avoid coagulopathy
- > patient positioning/warming
- > pharmacological agents
- > optimise cardiopulmonary function
- > optimise ventilation & oxygenation
- > restrictive transfusion strategies

**INTRAOPERATIVE**
- > manage anaemia & iron deficiency
- > manage medications & potential interactions
- > monitor & manage post op bleeding
- > keep patient warm
- > minimise phlebotomy
- > awareness of drug interactions & adverse events
- > treat infections promptly
- > maximise oxygen delivery
- > minimise oxygen use
- > treat infections promptly
- > tolerance of anaemia
- > restrictive transfusion strategies

**POSTOPERATIVE**
- > monitor & manage post op bleeding
- > keep patient warm
- > minimise phlebotomy
- > awareness of drug interactions & adverse events
- > treat infections promptly
- > maximise oxygen delivery
- > minimise oxygen use
- > treat infections promptly
- > tolerance of anaemia
- > restrictive transfusion strategies
IRON DEFICIENCY is the most common cause of anaemia in pregnancy

Patients with Hb <110g/L (1st trimester) and Hb <105g/L (2nd/3rd trimester) should receive 1st line ORAL IRON therapy as soon as anaemia is detected
  - Request HAEMATINICS (Iron deficiency ~ Ferritin <100μg/L or transferrin sats <20%)
  - 1ST LINE ORAL IRON THERAPY: Ferrous Sulphate 200mg tds
    - Give advice to reduce to BD/OD or alternate day regimens if poorly tolerated/side effects
    - Consider addition of laxatives
    - Improve absorption by taking with orange juice
  - RECHECK Hb 3-4 weeks post oral iron to ensure appropriate incrementation (>10g/L)

INTRAVENOUS IRON should be considered where:
  - Poor tolerance/compliance with oral iron
  - Failure to increment Hb with oral iron (<10g/L by 3-4 week recheck)
  - Inflammatory bowel disease
  - >34 weeks gestation (not enough time for oral iron to be effective pre delivery)

INTRAVENOUS IRON is contraindicated <13 weeks gestation

Outpatients at the Royal Free trust will now receive MONOFER as a rapid IV iron preparation that can be infused at a dose of up to 20mg/kg over 15 – 30 minutes

If a patient has been anaemic during her pregnancy ensure a FBC is sent if admitted pre delivery to Labour ward/5S
LESSON 2

CELL SALVAGE should be considered for all patients who are at high risk of massive obstetric haemorrhage undergoing caesarean section:

- Emergency LSCS
- Abnormal placental site: praevia, accreta
- Risk of atony: fibroids, uterine anatomy, multiparous pregnancy
- Previous MOH
- Coagulopathy

The basic standby suction and reservoir kit can be set up (£18.50) and collected blood only need be processed and rein infused if a sufficient volume is collected.

NB. In a Rh D Neg woman with Rh D Pos cord blood group, the mother will require Anti D immunoglobulin if cell salvage is used.
• STABLE anaemic post partum women rarely require RBC transfusion if Hb >70g/L⁻¹

• INFORMED CONSENT about the implications of transfusion (inc being unable to donate blood in future) and alternatives to transfusion (do nothing/give oral or IV iron) should be discussed

• Giving IRON to replenish stores and support sustained incrementation of Hb is more effective than RBC transfusion (which does little to replenish iron stores)

• If transfusion is deemed necessary, RBC should be given one unit at a time (SINGLE UNIT TRANSFUSION) followed by reassessment of the patient clinically and a check Hb

• **If patient is unstable or has ongoing dynamic bleeding RBC should not be withheld and transfusion should be administered as part of trust MOH protocol**