# Severe Anemia in Pregnancy Adds fuel to the Fire Options – Rapid correction with safety


**Dr. K. V. Malini**

MD, DGO PGDMLE, FICOG

DNB PG teacher & HOD

Department of OBG

General Hospital, Jayanagar,Bengaluru


ICCOB - 30-7-2018

# Check list for prevention of severe anemia

## Do's

- **General :**

- Screen all pregnant women for anemia at booking & at 28 weeks. Women with multiple pregnancy additionally at 20-24 weeks.
- Screen all women their blood group & antibody at booking and at 28 weeks
- Optimize Hb as per recommendations throughout pregnancy
- Advise women at risk of haemorrhage to deliver in hospital
- Practice AMTSL to minimize blood loss

# Safety checklist for blood transfusion

**Do's:**

- Take valid consent for blood transfusion
- In emergency ,if taking consent is not feasible, provide information on blood transfusion retrospectively
- Document clearly the "Reason for transfusion" & "the note of consent discussion" in patient's case notes
- Use groups and serum samples which are **< 3days old**
- In a woman at high risk of emergency transfusion, e.g., placenta previa and with no clinically significant alloantibodies, send group and serum samples once a week to exclude or identify any new antibody formation and keep blood available if necessary

# Check list contd…

- Use only blood components
- Use only ABO-Rh D & Kell compatible red cell units
- Use CMV - seronegative red cell & platelet components (apart from routine serological tests,perform test for CMV ?)
- In an extreme emergency situation when  blood group is unknown,group ‘O’ Rh D Negative red cells to be given

# Contd…..

- During massive obstetric haemorrhage –Administer FFP at the dose of 12-15 ml /kg wt for every 6 units of red cells and two 5units pools of cryoprecipitate to keep fibrinogen level > 1.5 g/L
- Trigger for FFP transfusion is INR > 1.5 and for cryoprecipitate fibrinogen < 1.5g/L
- A platelet transfusion trigger of 75x $10^9$ /L is recommended to provide margin of safety
- FFP , cryoprecipitate & platelets should ideally be group compatible

# Contd…

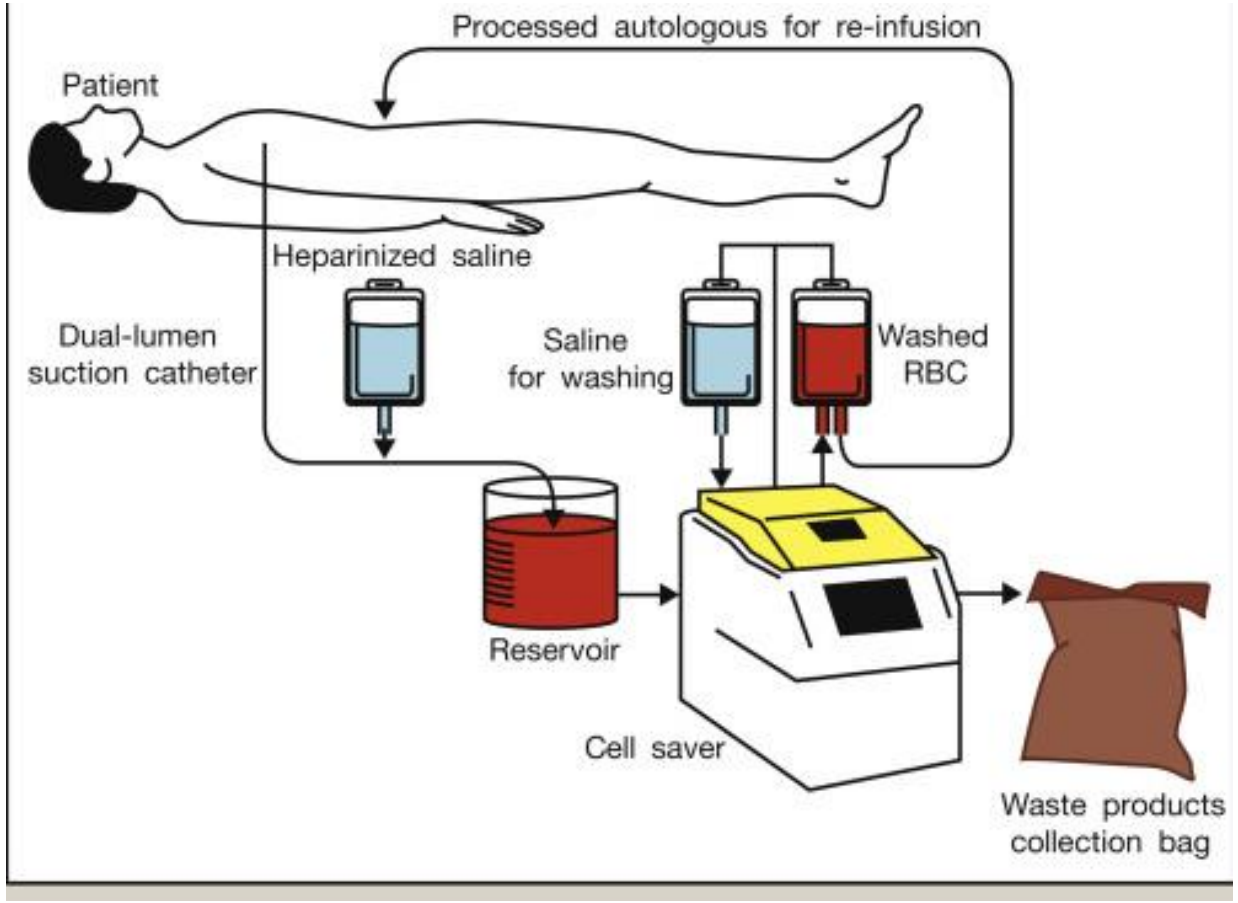
- Prior to transfusion check for signs of damage &leakage, discoloration/ turbidity, presence of clots or hemolysis
- Monitor vitals before transfusion, soon after starting the transfusion, after 15 minutes, every hour till transfusion is over and 4 hours after transfusion
- Preserve the blood bag with label & blood transfusion set for few hours

# Do not's:

- Do not transfuse whole blood
- Do not give autologous transfusion
- Do not warm blood
- Do not exceed 4 hours for PRBC transfusion
- Do not deep freeze PRBC
- Do not transfuse relative's blood

# Cell Salvage

- Cell salvage is recommended during pregnancy if anticipated blood loss is great enough to induce anemia or expected to exceed 20% of estimated blood volume
- IOCS to be planned if patient declines blood transfusion
- Take informed consent
- Cell salvage should be performed only by multidisciplinary teams who develop regular experience of IOCS



# Take home message……..

- Severe Anemia is an associated cause in up to half of maternal deaths worldwide
- Rapid correction of severe anemia is  by blood transfusion
- Blood & its components are life saving with inherent risks
- They should be used optimally & prudently to maximize patient outcomes
- Safest blood transfusion is blood that is not transfused!!!
- Prevention is the best method- avoid onset of anemia, prevent severe anemia in mild to moderate anemia by optimizing Hb % throughout pregnancy
- Catch them young – Prevent & treat adolescent anemia

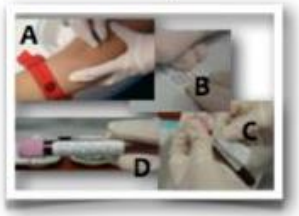
**STEP 2:**
Correct patient identification

**STEP 4:**
Check previous transfusion records

**STEP 6:**
Correct patient identification at bedside

**STEP 1:**
Appropriate indication for blood transfusion

**STEP 3:**
Bedside labeling of sample




**STEP 5:**
Proper collection and inspection of blood

**STEP 7:**
Monitoring vital signs during transfusion