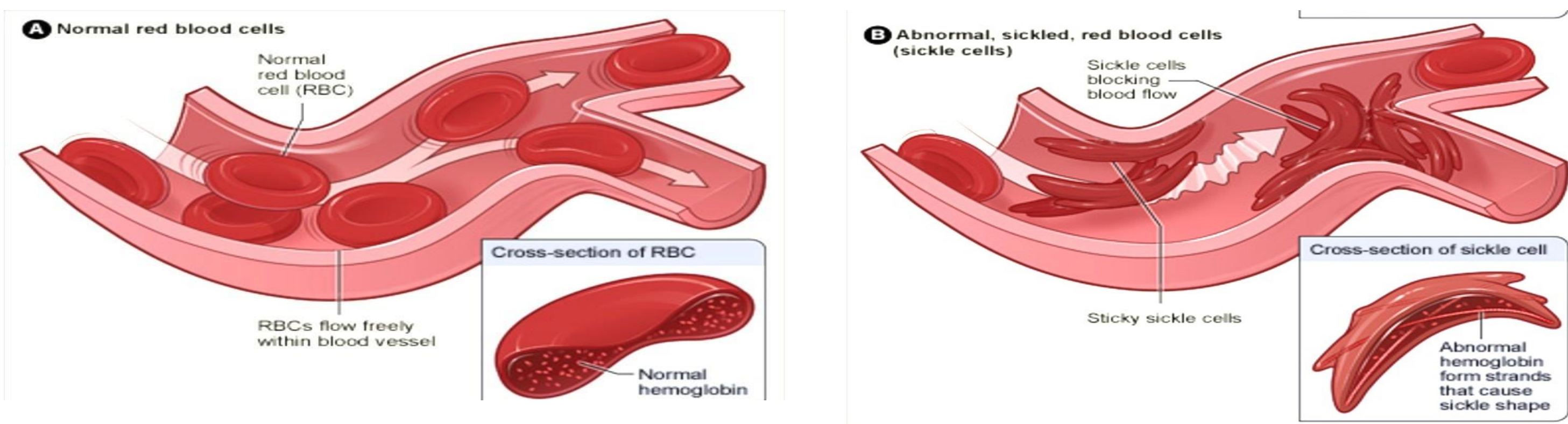




Introduction

- Pregnancy in women with Sickle Cell Disease (SCD) is associated with maternal mortality up to 11.4% [2]
- Complications - venous thromboembolism, preterm labor, acute chest syndrome, pain crises, and death
- SCD anemia worsens in pregnancy due to physiologic dilution
- Transfusion risks - iron overload, alloimmunization, and delayed hemolytic transfusion reactions



Patient Background

- 34 yo G3P1011 with Sickle Cell Disease
- Baseline hemoglobin (Hgb) 7.1
- > 20 blood transfusions
- Pulmonary embolism on enoxaparin
- Chronic opioid use
- Prior cesarean delivery complicated by acute chest syndrome and postpartum exchange transfusion

Case Description

Pre-operative

- At 35w5d biophysical profile 6/10 -> urgent cesarean delivery
- Type and screen - O positive, antibody negative
- Starting Hgb 6.8 mg/dL
- Two units compatible pRBCs prepared (C, K, Hgb S negative)
- Two large bore peripheral IVs

Intra-operative

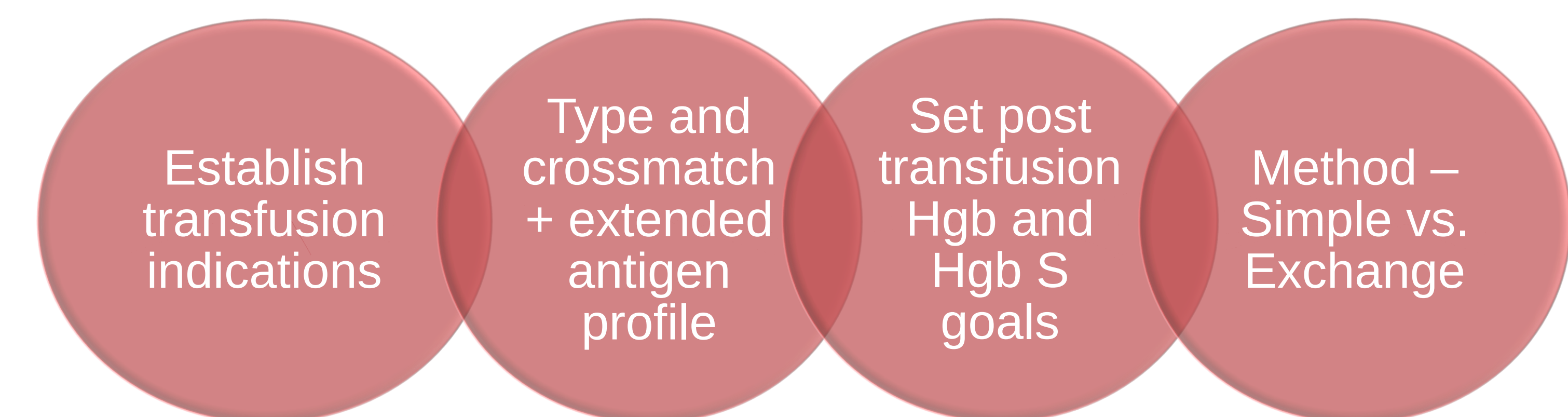
- Spinal anesthesia with 1.6 mL hyperbaric 0.75% bupivacaine + 15 mcg fentanyl + 150 mcg morphine
- QBL 455 mL -> 1 unit pRBCs
- SpO2 >90% on 2-3 L nasal cannula
- IV hydromorphone, nitrous oxide for breakthrough pain

Post-operative

- Home analgesics resumed (morphine 60 mg po q12hr + hydromorphone 8-16 mg q4hr PRN)
- Hydromorphone PCA ordered for uncontrolled pain
- On PPD 1 reticulocyte count 20% and Hgb 6.5 mg/dL -> 2units pRBCs transfused
- Discharged PPD3 with stable Hgb 8.6 mg/dL

Discussion

- No current consensus on the value below which blood transfusion should be considered
- Insufficient evidence for prophylactic transfusion [4]
- Prior to delivery, patients should have an extended red cell antigen profile due to RBC alloimmunization rates up to 47% in SCD [3]
- Consider prophylactic transfusion for women with history of severe complications such as acute chest syndrome or CVA [1]
- Transfusion should be aimed at reducing Hgb S to less than 40% and achieving Hgb >10 g/dL [5]
- Patients should have an individualized plan for transfusion with a multidisciplinary approach



References

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5. Obstet Gynecol. 2007; 109:229-37