

# Intrapartum Management of Inherited Bleeding Disorders: Addressing Common Maternal and Neonatal Considerations

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## Introduction

- Pregnancy induces a hypercoagulable state, but women with inherited bleeding disorders remain at elevated bleeding risk
- Inherited bleeding disorders increase the risk of:
  - Primary & secondary postpartum hemorrhage (PPH)
  - Neonatal bleeding (e.g., intracranial hemorrhage, hematomas)
- Many obstetric providers may encounter these rare but critical cases
- Evidence-based or expert multi-disciplinary opinion-guided intrapartum management is essential for safe delivery, particularly when evidence is limited

## Objective & Hypothesis

- Review intrapartum management strategies for inherited bleeding disorders
- Focus on maternal and neonatal considerations for von Willebrand disease (VWD), Hemophilia A & B carriers, Factor VII, XI, and V deficiencies

**Hypothesis:** Tailored care and interdisciplinary planning optimize outcomes in patients with inherited bleeding disorders during delivery

## Methods

- Comprehensive literature review using PubMed, which included case reports, case series, original studies, systematic reviews
- Search terms: disorder-specific terms + “pregnancy,” “labor,” “delivery”
- Inclusion: English-language studies with clinical management focus
- Data synthesized to highlight delivery planning and neonatal precautions

## Results

Maternal considerations	Neonatal considerations
Consult hematology for goal factor level CD > OVD Forceps > vacuum Consider prophylactic TXA at cord clamp Active management of third stage of labor Consider VTE prophylaxis	Avoid FSE, fetal blood sampling Collect cord blood for factor levels Administer routine vitamin K Routine newborn screening Delay circumcision pending neonatal testing Cranial ultrasound

CD: cesarean delivery; OVD: operative vaginal delivery; TXA: tranexamic acid; VTE: venous thromboembolism; FSE: fetal scalp electrode

Table 1. General considerations for management of patients with inherited bleeding disorders on labor and delivery

Maternal considerations	Neonatal considerations
<b>Antepartum</b> Baseline VWF in first and second trimester Third trimester anesthesia consult if VWF <50% VWF <50% at 36 weeks: VWF concentrate at time of delivery	50% chance of inheriting VWD Avoid invasive procedures in labor (i.e. FSE) Cord blood at delivery for VWD panel Delay circumcision for male infant until VWD is ruled out
<b>Intrapartum</b> Avoid DDAVP CD > OVD	

VWF: von Willebrand factor; DDAVP: desmopressin acetate; CD: cesarean delivery; OVD: operative vaginal delivery; TXA: tranexamic acid; VWD: von Willebrand disease; FSE: fetal scalp electrode

Table 2. Considerations for management of patients with von Willebrand disease on labor and delivery

## Discussion

- Neuraxial anesthesia may be safely administered if factor levels meet defined thresholds (e.g., VWF/FVIII >50 IU/dL).
- Avoidance of invasive obstetric procedures (e.g., fetal scalp electrodes, vacuum delivery) minimizes neonatal bleeding risk
- Postpartum TXA is a valuable adjunct to prevent delayed bleeding

## Conclusion

- Inherited bleeding disorders in pregnancy pose complex maternal and neonatal risks that extend into labor and delivery
- Neonatal management should include cord blood testing and deferred circumcision until factor status is confirmed
- There is a critical need for:
  - Increased awareness of bleeding disorders among obstetric teams
  - Development of standardized clinical protocols
  - Inclusion of pregnant individuals with inherited bleeding disorders in clinical trials to strengthen evidence-based care

## References

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