VTE in Pregnancy: Guidance for Healthcare Professionals

1. Why VTE Matters

Pregnancy is a naturally hypercoagulable state, an evolutionary adaptation to limit blood loss at delivery. It comes at a cost: pregnant women have an overall risk approximately **4–5 times the VTE risk** of non-pregnant women of the same age, although the risk is low in the first trimester, double the non-pregnant risk and rises gradually, rising further in the postpartum period, when the risk is 60 times the non-pregnant risk[1].

Venous thromboembolism is the leading cause of maternal death in the UK.[2] Of note the 2024 MBRRACE report noted that unexpectedly 25% of all deaths occurred in early pregnancy, many before women were seen in Maternity Care in the UK- "booking" does not normally occur before 8-10 weeks. This led to NHS England to ask a team of healthcare professionals and patient representatives to find a solution for this period. This led to the development of the early pregnancy risk questionnaire/assessment tool which lives on the Thrombosis UK website, allowing women to self -assess their risk – see earlypregnancy | Thrombosis UK . This was also translated into Element 1 of the Maternal Care bundle released in January 2026 (see NHS England » The Maternal Care Bundle) allowing healthcare professionals who see pregnant women in early pregnancy to assess their risk.

2. Assessing VTE Risk

VTE risk should be assessed **as early as possible in pregnancy and whenever clinical circumstances change**, including at maternity booking, hospital admission, around birth and postpartum. In practice, if women are seen outside Maternity Care in early pregnancy, they should be risk assessed with either the early pregnancy risk assessment tool or RCOG tool.

Consider:

- **Pre-existing factors:** previous VTE, thrombophilia, family history, obesity, age, parity and relevant medical comorbidities
- **Obstetric factors:** hyperemesis gravidarum, caesarean birth, pre-eclampsia, multiple pregnancy, assisted reproduction, postpartum haemorrhage and preterm birth
- **Transient factors:** infection, immobility, dehydration and surgery

Previous VTE, high-risk thrombophilia or APS should prompt consideration of early specialist input (see early pregnancy risk assessment tool).

Important 2026 RCOG update

In September 2026, RCOG issued an interim update to Green-top Guideline No. 37a, introducing:

- **LMWH throughout pregnancy and for six weeks postpartum for women with BMI ≥50 kg/m² at booking**

- revised **weight-based LMWH dosing**
- updated **VTE risk assessment scoring so that the RCOG guidance is in harmony with the evidence based early pregnancy risk assessment tool**

Clinicians should use **GTG 37a alongside the September 2026 position statement** until the updated guideline is published.

Pregnancy loss and abortion care: VTE risk assessment remains important following miscarriage or termination of pregnancy. All the abortion services are implementing the use of the early pregnancy tool.

3. Thromboprophylaxis: Who, What, When and How Long?

Who?
Use the early pregnancy risk assessment tool or current RCOG VTE risk assessment to determine whether thromboprophylaxis is indicated. Previous VTE and thrombophilia may require individualised specialist management.

What?
Low molecular weight heparin (LMWH) is the recommended pharmacological thromboprophylaxis in pregnancy. Dosing is weight-based. Refer to the early pregnancy tool and current RCOG guidance and September 2026 position statement, alongside local guidance.

When?
Start LMWH as soon as possible once an indication is identified. Women receiving antenatal LMWH should have a **clear plan for labour and birth**, including when to stop LMWH, implications for regional anaesthesia and when to restart following delivery.

How long?
Duration depends on the woman's individual risk and may range from treatment while a transient risk factor persists to **10 days or six weeks postpartum**. VTE risk should be reassessed after birth.

Supportive measures: Encourage mobilisation and adequate hydration. Where LMWH is contraindicated, discuss urgently with local experts.

Always refer to the early pregnancy risk assessment tool or latest RCOG Green-top Guideline No. 37a and September 2026 position statement, together with local guidance, for current risk thresholds, LMWH dosing and duration.

4. The Patient Experience

"Do I really need this?" "Will it affect my baby?" "What happens if I miss a dose?"

Daily injections, concerns about the baby and uncertainty around labour can affect adherence. **A missed dose may reflect a practical or emotional barrier rather than a lack of motivation.**

Ensure women understand:

- why LMWH is recommended
- how to inject Getting ready to use low molecular weight heparins (LMWH) during your pregnancy and what to do about a missed dose
- side effects and when to seek help
- what to do if labour starts or their waters break
- who to contact for advice

Remember that adherence may become more difficult after birth and additional support may be needed.

5. Suspected VTE

Maintain a low threshold for investigating VTE during pregnancy and postpartum. Unilateral leg pain and/or swelling, unexplained breathlessness, syncope, chest pain or tachycardia should prompt urgent clinical assessment.

Suspected VTE requires **prompt objective investigation**. D-dimer testing is not currently recommended by RCOG for the investigation of acute VTE in pregnancy.

Whilst the RCOG guidance is being updated we suggest using the new 2026 AHA/ACC/ACCP/ACEP/CHEST/SCAI/SHM/SIR/SVM/SVN Guideline for the Evaluation and Management of Acute Pulmonary Embolism in Adults: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines | Circulation, which has a special section on pregnancy.

Please consider referring to the local PERT team as the management of PE has changed enormously in the last ten years, from classification to management, so help from a team dealing in PE everyday is very helpful.

6. Supporting Good Practice

Reliable VTE prevention requires:

- **consistent risk assessment and reassessment**
- **clear documentation** of LMWH dose and duration
- **effective handover** between antenatal, intrapartum and postnatal teams
- **clear communication** with women about their treatment plan

The thromboprophylaxis plan should follow the woman throughout her maternity journey.

7. Guidelines and Resources

- **RCOG Green-top Guideline No. 37a:** Reducing the Risk of Thrombosis and Embolism during Pregnancy and the Puerperium [rcog.org.uk]
- **RCOG September 2026 Position Statement:** Interim updates to GTG 37a [rcog.org.uk]
- **NHS England Maternal Care Bundle:** Element 1: Venous Thromboembolism [england.nhs.uk]
- **MBRRACE-UK:** Saving Lives, Improving Mothers' Care 2026 [npeu.ox.ac.uk]
- 2026 AHA/ACC/ACCP/ACEP/CHEST/SCAI/SHM/SIR/SVM/SVN Guideline for the Evaluation and Management of Acute Pulmonary Embolism in Adults: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines | Circulation

Guidance is evolving. Clinicians should use the latest national or international recommendations alongside local maternity and thrombosis guidance.

References

1. Heit et al (2005) Trends in the Incidence of Venous Thromboembolism during Pregnancy or Postpartum: A 30 Year Population-Based Study. Annals of Internal Medicine 142(10). https://doi.org/10.7326/0003-4819-143-10-200511150-00006
2. MBRRACE-UK (2026) Saving Lives, Improving Mothers' Care: Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2022–24. Oxford: National Perinatal Epidemiology Unit, University of Oxford.

This guidance has been developed and reviewed by Professor Beverley Hunt OBE, Founder of Thrombosis UK and Co-Chair of Trustees, and Emma Gee, Nurse Consultant in Thrombosis & Coagulation.