

## Management of Thromboembolic Disease in Pregnancy

L K Tan,\**FAMS, MRCOG, M Med (O&G)*, M de Swiet,\*\**FRCOG, FRCP, MD*

### Abstract

*Venous thromboembolism (VTE) is the leading cause of maternal mortality and morbidity in developed countries including Singapore. The physiological changes of pregnancy and other factors, such as maternal age, parity, obesity, operative delivery, general anaesthesia and congenital and acquired thrombophilia, further increase the risk of VTE throughout all three trimesters of pregnancy, including the puerperium. VTE has a wide spectrum of clinical presentations and a high index of clinical suspicion is vital. Clinicians should not withhold the use of chest X-rays and ventilation-perfusion (V/Q) lung scans in pregnancy as the radiation emitted is well within the safety limits to the fetus. Most treatment guidelines are based on studies in non-pregnant populations. Heparin is the preferred anticoagulant as it does not cross the placenta and therefore carries no teratogenic risk to the fetus. There is increasing experience and confidence in the use of fixed dose subcutaneous low molecular weight heparin (LMWH) which removes the need for cumbersome monitoring, thereby allowing outpatient treatment. LMWH may also have a lower risk of osteopaenic complications compared to unfractionated heparin. With the exception of acute phase treatment of pulmonary embolism, LMWH is used in all other aspects of the treatment of VTE in pregnancy, including thromboprophylaxis. Risk stratification of women into high and low risk allows judicious use of anticoagulants for thromboprophylaxis. Antenatal thromboprophylaxis with LMWH is reserved for high-risk women, while low-risk women will only require such cover in the postpartum period.*

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*Key words: Anticoagulation, Deep vein thrombosis, Low molecular weight heparin (LMWH), Maternal mortality, Pulmonary embolism, Thrombophilia, Thromboprophylaxis, Venous thromboembolism (VTE), Warfarin*

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\* Associate Consultant

Department of Obstetrics & Gynaecology, Singapore General Hospital  
Visiting Fellow in Obstetric Medicine  
Queen Charlotte & Chelsea Hospital

\*\* Consultant Obstetric Physician

Queen Charlotte and Chelsea Hospital  
Emeritus Professor in Obstetric Medicine  
Faculty of Medicine, Imperial College, United Kingdom

Address for Reprints: Dr Tan Lay Kok, Department of Obstetrics & Gynaecology, Singapore General Hospital, Outram Road, Singapore 169608.