

Prescribing Low Molecular Weight Heparins (LMWHs)

The scope of this document is to provide sufficient information to ensure LMWHs are used safely and appropriately in Wandsworth Primary Care Trust. It is aimed at all healthcare professionals involved in the prescribing, dispensing or administration of low molecular weight heparins for patients in Primary care. It aims to cover all recognised indications (licensed and unlicensed) for the prevention or treatment of venous thromboembolism. It is applicable to all patients who are to receive LMWHs and have been discharged from hospital. These patients may still be under the routine care of a hospital specialist through outpatient follow up, or may be managed solely by primary care health care professionals.

The aims of this document are;

- To support General Practitioners in the governance and safety of continuing the prescribing of LMWHs once initiated by an appropriate specialist.
- To minimise the inconvenience for patients by reducing unnecessary patient follow-up visits to hospital to simply collect prescriptions for LMWHs.

Points to Note:

- Not all LMWHs are licensed for all indications.
- Current practice at the nearby Secondary care Trusts involves the use of more than one preparation.
- The licensing differs for each of the LMWHs in different indications .
- There is no licensed LMWH for use in pregnancy (although the BNF does advise on dosing).
- Dosing of each type of LMWH needs to be within BNF / SPC licensed recommendations: prophylaxis or treatment.

Disclaimer:

The following table is a guide to the prescribing of Low Molecular Weight Heparins (LMWHs) for NHS Wandsworth Prescribers. This information is a recommendation of safe practice and is a guide only. Low Molecular Weight Heparins remain to be listed on the South West London Prescribing Policy as a 'hospital only' medicine (March 2011).

This table or guidance does not imply the GP *must* take on the prescribing in any of the suggested indications below.

A risk assessment has been undertaken on the indications below on the prescribing of LMWHs in Primary Care and when an individual GP is confident of the diagnosis, duration and monitoring, continuation may be appropriate on a patient case-by-case basis.

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TABLE 1: LMWH indications and Clinician Responsibilities

* unlicensed indications.

Speciality	Indication	Duration	Initiated by	Prescribed By	Monitored By
Anticoagulation	When INR is sub-therapeutic and interim treatment is required (bridging) within first month of diagnosis of a DVT or PE <i>OR</i> Where a recurrent DVT or PE is suspected.	Until warfarin initiated and / or target INR is in range <i>OR</i> until a diagnosis of DVT is excluded.	Hospital Anticoagulant Team	Hospital Anticoagulant Team Not for GP prescribing	Hospital Anticoagulant Team
Oncology	Treatment of DVT/PE in oncology patients. LMWHs are often given first line as deemed superior to warfarin for the whole treatment course. A LMWH is also given in place of warfarin to patients undergoing chemotherapy which can often interact with warfarin.	Dependent on indication: 3-6 months for DVT 6 months for PE <i>OR</i> as stated by a specialist	Oncology team	Where appointments are at <i>less</i> than 4 week intervals - Hospital Oncology team Where appointments are at <i>more</i> than 4 week intervals - GP	Hospital Oncology Team
General Medicine	High risk Treatment of suspected DVT only whilst awaiting scan or scan results.	Until no longer at risk of VTE	Hospital Medical Team	Hospital Medical Team	Hospital Medical Team
Pregnancy*	Treatment of DVT / PE		Hospital Obstetric Specialist only	Hospital Obstetric Specialist only	Hospital Obstetric Specialist only
	Identified as a high risk pregnancy ***	Until the onset of labour and advice sought from a specialist to continue after birth	Hospital Obstetric Specialist only	Hospital Obstetric Specialist or GP	Hospital Obstetric Specialist only
High Risk Surgery (extended prophylaxis)	Extended prophylaxis	Up to 5 weeks.	Hospital Surgical team	Hospital Surgical team or GP (if less than 5 weeks supply on discharge)	Hospital Surgical team
Travel*	Prophylaxis in certain high risk patients (previous VTE, thrombophilia, recent major trauma, recent high risk surgery / pregnancy)	Single injection 2 to 4 hours before travel at a prophylaxis dose	Seek advice from Haematology Specialist	GP – only on advice of Haematology Specialist	Not required. Single doses only.

TABLE 2: A Selection of anticoagulants and their licensed indications*

Indication	Dalteparin	Enoxaparin	Tinzaparin	Bemiparin ▼	Fondaparinux ▼	Dabigatran ▼	Rivaroxaban ▼
Surgical Thromboprophylaxis	Peri- and post- operative/ Moderate risk as well as high risk						
- Orthopaedic: hip and knees	✓	✓	✓	✓	✓	✓	✓
- Extended use in hip surgery	✓	-	-	-	✓	✓	✓
- General Surgery	✓	✓	✓	✓	Abdominal surgery only	-	-
Medical Thromboprophylaxis	✓	✓	-	-	✓	-	-
Treatment of VTE	✓	✓	✓	✓	✓	-	-
Extended treatment of VTE in patients with solid tumours	✓ ▼	-	-	-	-	-	-
SVT of lower limbs without DVT	-	-	-	-	✓	-	-
Unstable angina	✓	✓	-	-	✓	-	-
NSTEMI	✓	✓	-	-	✓	-	-
STEMI	-	✓	-	-	✓	-	-
Haemodialysis	✓	✓	✓	✓	-	-	-
Haemofiltration	✓	-	-	-	-	-	-

▼ newly licensed drug in the UK. All Products above Summary of Product Characteristics references are freely available at <http://emc.medicines.org.uk>

Low Molecular Weight Heparins are NOT interchangeable and therefore should not be switched (for the duration of the course) if a patient has been initiated in the hospital on one specific product.

Advice to General Practitioners that do decide to Prescribe a Low Molecular Weight Heparin:

Under no circumstances should a GP initiate the Prescribing of a LMWH without the advice of a Specialist.

Essential information such as dose, weight, renal function, indication and duration of treatment is communicated at transfers of care (e.g. by discharge letters) and used to ensure that future doses are safe.

Ensure you are using an accurate patient weight. Accurate patient weight should be obtained and recorded at first contact with primary or secondary care and throughout treatment. Reasons for not obtaining weight should be clearly documented. The exception to this is in pregnancy. A pre-pregnancy weight should be used.

Do not estimate weight. It is often inaccurate and can lead to incorrect dosing. The range of weighing equipment available should prevent the need for estimation in all but the most exceptional circumstances.

Check your equipment. Your weighing device should meet the requirements for clinical weighing scales.

Consider patient mobility. Many patients in primary and secondary care cannot stand on a set of scales. Weighing equipment should be suitable and available for the intended patient group. Lack of equipment should be highlighted using local risk assessment processes.

Renal Function: The risk of bleeding may be increased when the patient has existing renal impairment. A dose reduction and monitoring of factor Xa may be required or alternatively use unfractionated heparin (hospital infusion only). See individual product literature found in SPC's for details.

Dosing should be based on up-to-date licensing and obtained from the latest BNF or Summary of Product Characteristics.

Ensure the prescription dosing is correct according to the indication whether it should be ONCE or TWICE daily dosing.

At the time of publication of the NICE Clinical Guidance CG92 (January 2010) some types of LMWH do not have UK marketing authorisation for VTE prophylaxis in medical patients. Prescribers should consult the summary of product characteristics for the individual LMWH. Informed consent for off-label use should be obtained and documented.

Duration including a prescription STOP date must be specified and documented on the prescription and in the consultation medical notes within the GP practice.

Monitoring Factor Xa – This is required in paediatrics, patients with renal failure, very underweight patients, morbidly obese patients, pregnant women, patients with severe hepatic impairment or at a known increased risk of bleeding.

Bibliography

1. Deep Vein Thrombosis – Prevention for Travellers

http://www.cks.nhs.uk/dvt_prevention_for_travellers/management/scenario_dvt_prevention_for_travellers/people_at_high_risk/additional_information

2. NICE Clinical Guideline 92 www.nice.org.uk/CG92

3. Royal College of Obstetricians and Gynaecologists

Thrombosis and Embolism during Pregnancy and the Puerperium, Reducing the Risk (Green-top 37a) November 2009

www.rcog.org.uk/womens-health/clinical-guidance/reducing-risk-of-thrombosis-greentop37a

Thrombosis and Embolism During Pregnancy and the Puerperium, the Acute Management of (Green-top 37b) February 2007

www.rcog.org.uk/womens-health/clinical-guidance/thromboembolic-disease-pregnancy-and-puerperium-acute-management-gre

4. Guideline on Travel –Related Thrombosis

[http://www.bcshguidelines.com/documents/BCSHTTravelGuidelineFinal190910_\(2\).pdf](http://www.bcshguidelines.com/documents/BCSHTTravelGuidelineFinal190910_(2).pdf)

5. BNF 60 September 2010

6. Summary of Product Characteristics as accessed of July 22nd 2011

www.medicines.org.uk/EMC/searchresults.aspx?term=dalteparin&searchtype=QuickSearch

www.medicines.org.uk/EMC/searchresults.aspx?term=enoxaparin&searchtype=QuickSearch

www.medicines.org.uk/EMC/searchresults.aspx?term=tinzaparin&searchtype=QuickSearch

www.medicines.org.uk/EMC/searchresults.aspx?term=bemiparin&searchtype=QuickSearch

7. MHRA Rapid response Report www.nrls.npsa.nhs.uk/alerts/?entryid45=75208

8. Clinical Knowledge Summaries

http://www.cks.nhs.uk/knowledgeplus/patient_safety/npsa_rapid_response_reports/30_july_dose_errors_with_low_molecular_weight_heparins