

# Prophylaxis and Treatment of VTE in Renal Impairment

## 1. Aim

The aim of this policy is to provide guidance for using low molecular weight heparin (LMWH) in patients with renal impairment for prophylaxis and treatment of DVT / PE / ACS.

## 2. Introduction

This guidance is produced as a consensus statement by the GHNHSFT Nephrologists.

## 3. Risk Assessment

The risk of venous thromboembolism (VTE) must be assessed individually for every patient, which will be undertaken using the Trust's agreed risk assessment tool.

### Medical Thromboprophylaxis for DVT/PE:

DVT/PE thromboprophylaxis with dalteparin (Fragmin®) 5000 IU subcutaneously once daily, has not been associated with an excessive anticoagulant effect due to drug bioaccumulation and is unlikely to contribute to bleeding.[1] However if there is an underlying clinical problem which makes the patient a high risk for bleeding then seek advice. Age or renal impairment should not be a basis to reduce the dalteparin dose for thromboprophylaxis in patients with impaired renal function. Regular monitoring of Anti-factor -Xa levels is not recommended.

**The recommended dose of dalteparin (Fragmin®), for DVT/PE thromboprophylaxis is 5000 IU once daily by SC injection**

### Treatment for DVT/PE and Acute Coronary Syndrome:

#### **Treatment of DVT/PE:**

Creatinine clearance >30ml/min = Treatment dose dalteparin (Fragmin®) SC once daily

Creatinine clearance < 30ml/min = Enoxaparin 1mg/kg SC once daily\*

#### **Treatment of ACS:**

Creatinine clearance >20ml/min = Fondaparinux 2.5mg SC once daily

Creatinine clearance <20ml/min = Enoxaparin 1mg/kg SC once daily\*

*\*note: following EU harmonisation of the Summary of Product Characteristics in 2017, enoxaparin is no longer licensed for use if CrCl <15ml/min. However, the local Nephrologists consider this acceptable practice, given the difficulties with alternative approaches and the extensive local experience with enoxaparin in this group of patients.*

## References:

1. Arch Int Med 2008;168:1805-12
2. Summary of Product Characteristics for Fragmin® 5000 IU (dalteparin) solution for injection. Electronic Medicines Compendium. Last updated on eMC 17<sup>th</sup> April 2020.  
<https://www.medicines.org.uk/emc/product/4247/smpc>
3. Summary of Product Characteristics for Clexane® (enoxaparin) pre-filled syringes. Electronic Medicines Compendium. Last updated on eMC 26<sup>th</sup> May 2020.  
<https://www.medicines.org.uk/emc/product/4247/smpc>
4. Summary of Product Characteristics for Arixtra® (fondaparinux) solution for injection 2.5mg. Electronic Medicines Compendium. Last updated on eMC 10<sup>th</sup> September 2018.  
<https://www.medicines.org.uk/emc/product/3335/smpc>