**Venous Thromboembolism (VTE) Prophylaxis in the Renal Unit**

*Royal Infirmary of Edinburgh*

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| **The following factors can increase the risk of VTE:**

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| * Age >60 years
 | * Recent surgical procedure
 | * COPD
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| * Critical care admission
 | * Heart failure
 | * Thrombophilia
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| * Dehydration
 | * Diabetes
 | * Sickle cell disease
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| * Nephrotic syndrome
 | * BMI ≥ 40
 | * COC/HRT or tamoxifen
 |
| * Acute infection
 | * Myeloproliferative disorder
 | * Varicose veins
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| * Immobility due to hospital admission
 | * Active cancer or chemotherapy
 | * Inflammatory bowel disease
 |
| * Personal/family history of VTE
 | * Recent cardiac event or stroke
 | * Pregnancy or <6 weeks postpartum
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**If low risk, encourage mobility or consider mechanical thromboprophylaxis (TED stocking, Flotrons).** **Thrombosis risk should be balanced with the risk of bleeding. Consult specialist registrar or consultant to assist with assessment if required. The following factors may increase the risk of bleeding:**

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| * Severe renal disease
 | * Planned procedure within 6 hours
 | * Active bacterial endocarditis
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| * Platelets <70 x 109/l
 | * Post-surgery or biopsy
 | * Severe hepatic disease
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| * Recent bleeding episode
 | * Major trauma
 | * Low dry weight (<46kg)
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**If pharmacological thromboprophylaxis indicated, assess renal function and consider the following:** |
| eGFR > 30 ml/min/1.73m2 | SC dalteparin 5000 units daily |
| eGFR 10-30 ml/min/1.73m2  | SC dalteparin 2500 units dailyIf very high thrombotic risk, consult specialist registrar or consultant – may consider 5000 units daily.Monitor anti-factor Xa level after 10 days. |
| eGFR < 10 ml/min/1.73m2or patients on renal replacement therapy/conservative management  | No heparin for thromboprophylaxis unless high risk.If high risk use SC dalteparin 2500 units daily. Monitor anti-factor Xa level after 10 days. |
| *\*If weight <46kg consider using CrCl instead of eGFR for estimation of renal function***Dose adjustment in extreme body weights**

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|  | **eGFR > 30 ml/min/1.73m2** | **eGFR ≤ 30 ml/min/1.73m2** |
| **BMI ≥ 40** | SC dalteparin 7500 units daily | Max SC dalteparin 5000 units daily |
| **Body weight <46kg** | SC dalteparin 2500 units daily | SC dalteparin 2500 units daily |

*\*Use dry weight***Guidance on anti-factor Xa monitoring*** Target peak range is 0.1-0.4 units/ml. Please consult registrar or consultant if level recorded is not within target range
* Order as **‘LMW Heparin assay’** on TRAK. Level MUST be taken 4 hours post dose
* For patients requiring a biopsy, withhold SC dalteparin the evening before the procedure and take a trough anti-factor Xa level at the same time
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