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P372 -The effect of prophylactic Tinzaparin on anti-Xa levels in patients with Chronic Kidney Disease 3-5.

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Our center has recently introduced prophylactic tinzaparin as the low molecular weight heparin of choice for prevention of deep vein thrombosis. This poses problems in patients with underlying chronic kidney disease as the BNF states avoidance in Creatinine Clearance of <30ml/min due to unknown pharmacokinectics and risk of increased bleeding. Our Trust guidelines state using a doses of 3500units for eGFR <30ml/min and weight >50kg and 2250 units for eGFR <30ml/min and weight >50kg.

We elected to investigate the effect of prophylactic tinzaparin on anti-Xa levels in patients with an eGFR <30 ml/min. Patients were recruited during an inpatient stay. Clinical details were recorded and anti-Xa levels were taken 4-6 hours after the 3rd dose of tinzaparin. Anti-Xa levels at our trust are measured by a chromogenic assay where a chromophore linked substrate of factor Xa is added to the sample.Target prophylactic levels are 0.10-0.3 IU/ml 4-6hours post the 3rd dose.

Table 1 summarizes the patients recruited and their corresponding anti-Xa levels.

Despite a small number of patients recruited, our results show that therapeutic levels were achieved in the majority of patients with the current dosing strategy. Only one patient (patient 10) had abnormal bleeding with epistaxis but she also had a known previous naso-septal perforation.

No other patients showed signs of abnormal bleeding nor developed a deep vein thrombosis. In 3 out of 11 patients, anti-xa levels were sub-therapeutic for prophylaxis requiring an increase in tinzaparin dosing.

In conclusion, the use of reduced dose tinzaparin in patients with an eGFR <30ml/min including those on dialysis appears safe with no adverse effects of bleeding. Serial measurements at days 3,7, and 10 would help in assessing the pharmocodynamic properties on tinzaparin in patients with renal insufficiency.