## Phosphate control in Satellite Dialysis Centre Patients

**Introduction:** The International Society of Nephrology recently updated their guidelines on Mineral bone disease management of patients with chronic kidney disease. Previous local audits of phosphate control in comparison with NICE guidelines (CG157) have shown that 30% of patients were hyperphosphataemic and all were on treatment.

**Objectives:** Given that guidelines have been updated what is our compliance like now and what changes can be made to improve in light of new direction.

**Methods:** Data on all Dialysis patients at three Satellite Dialysis units was collated from renal database, clinical letters and dietician records and linked to their blood results from May-July 2017. The compliance of “lowering elevated phosphate levels toward the normal range” was observed with a combination of either a normal range Phosphate or treatment with Phosphate binders, secondary observations; were specialist dietician input, usage of phosphate binders and Dialysis duration and modality.

**Results:** 174 patients were observed, 59% male, mean age 65 years old. 39% of patients had an average phosphate of >1.7 for the study period. 73% were on a Phosphate binder, of which the most commonly prescribed was Sevelamer. 143 patients were prescribed 1- Alfacalcidol and 27 patients were receiving Cinacalcet. The mean PTH was 51.7. 63 patients had HD duration less than 240 minutes and 7 had an HD period of more than 240 minutes. The mean vintage of HD was 4 years and the mean URR was 77. 37% had Calcium Acetate as a first line Phosphate Binder, but the highest proportion used Sevelamer. Only 23.5% saw a renal dietician prior to starting Phosphate Binders and 65% saw a dietician at sometime in preceding year, but only 30% of those not reviewed were hyperphosphataemic. At clinic review the medication review 85.4% and dietary advice 45.7% both improved.

**Conclusion:** Our control of Hyperphosphatemia in comparison to the audit in 2014 is reduced, and our referral to dietetics services is well below the guideline recommendation. We are providing Calcium Acetate as a first line binder, but could improve our adherence. PTFE grafts and prolonged dialysis duration are both associated with elevated serum phosphate. Higher Sevelamer use shows some adherence with the KDIGO advice to reduce Calcium containing binder use. Renal dietician review rates fell from 88% to 65%, but these were mostly patients with normal Phosphate.