

# To what extent can we achieve mineral bone metabolism treatment targets suggested by KDIGO guidelines among chronic kidney disease stage 3-5 non-dialysis patients?

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## Abstract

**Background** Real-life data on the predialysis management of chronic kidney disease (CKD) is scarce. We aimed to investigate the current clinical practice and compliance among nephrologists with KDIGO CKD mineral bone disorders (MBD) guidelines. **Methods** We performed a multicenter cross-sectional study. We recruited stage 3-5 non-dialysis (ND) CKD patients and recorded data related to CKD MBD from two consecutive outpatient clinical visits apart 3 to 6 months. We calculated therapeutic inertia for hyperphosphatemia, hypocalcemia, hyperparathyroidism, and hypovitaminosis D and overtreatment for hypophosphatemia, hypercalcemia, hypoparathyroidism, and hypervitaminosis D. **Results** We examined a total of 302 patients (male: 48.7%, median age: 67 years). The persistence of low 25-OH vitamin D levels (61.7%) was the most common laboratory abnormality related to CKD-MBD, followed by hyperparathyroidism (14.8%), hyperphosphatemia (7.9%), and hypocalcemia (0.0%). According to our results, therapeutic inertia seems to be a more common problem than overtreatment for all the CKD-MBD laboratory parameters that we examined. Therapeutic inertia frequency was highest for hypovitaminosis D (81.1%), followed by hypocalcemia (75.0%), hyperparathyroidism (59.0%), and hyperphosphatemia (30.4%), respectively. **Conclusion** We found that CKD-MBD is not optimally managed in CKD stage 3-5 ND patients. Clinicians should have an active attitude regarding the correction of MBD even at the earlier stages of CKD.

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