

LANTHANUM CARBONATE REDUCES PHOSPHATE BURDEN IN PATIENTS WITH CKD STAGES 3 AND 4: RESULTS FROM A RANDOMIZED MULTICENTER TRIAL
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Lanthanum carbonate (LC) is an effective, well-tolerated, noncalcium-containing phosphate binder for the treatment of hyperphosphatemia in CKD patients undergoing dialysis. The efficacy and safety of LC therapy was assessed in patients with CKD Stages 3 and 4.

Following screening for eligibility ($n = 281$), patients with 2 consecutive serum phosphate (SP) measurements of > 4.6 mg/dL during a run-in phase were randomized to treatment (121 from 28 sites) with either LC or placebo (PLB) in a 2:1 ratio (LC: 80; PLB: 41). The ITT population included 90 patients (LC: 56; PLB: 34); 71 completed the study (LC: 43; PLB: 28). Mean \pm SE eGFR were 22.7 ± 0.9 mL/min/1.73 m² (LC) and 24.0 ± 1.9 mL/min/1.73 m² (PLB) at screening. SP levels were 5.3 ± 0.1 mg/dL (LC) and 5.4 ± 0.1 mg/dL (PLB) at baseline. Almost 80% of patients in each group were naïve to phosphate-binder therapy. The initial dose of LC was 750 mg/day, titrated every 2 weeks to target an SP level of < 4.0 mg/dL. By Week 8, most patients were receiving 3000 mg/day of LC or matching PLB (74.4% and 85.7%, respectively); 44.6% of patients (LC) and 26.5% (PLB) had SP levels controlled to ≤ 4.6 mg/dL (difference 18.1%, $P = 0.1167$). Statistically significant differences between LC and PLB in change from baseline for SP (difference 0.37 mg/dL, $P = 0.0228$) and iPTH (difference 32.6 pg/mL, $P = 0.0212$), and a reduction in urinary phosphate excretion with LC (-260.9 ± 61.7 mg/day from a baseline level of 836.3 ± 60.2 mg/day), indicated a substantial lowering of phosphate burden. LC therapy was well tolerated over 8 weeks of treatment.

LC lowers phosphate burden in patients with CKD Stages 3 and 4, as demonstrated by the reduction in SP and UP levels observed in this study. There was a significant fall in iPTH levels in the LC group.