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Improving Medication Access to Reduce Disparities by a Large Dialysis Provider

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There are clear disparities in access and delivery of care to racial and ethnic minorities with CKD (Norris K, Nissenson AR: CJASN 2008) which may also extend to those with ESRD. Achieving access to medications is a challenge for many ESRD patients who on average are taking 7-9 different medications each day. We developed an innovative program which delivers prescribed medications to dialysis patient at the dialysis center. We postulated that use of the Rx program would improve medication adherence, particularly for subsets of patients for whom access to medications was suboptimal. We hypothesized that access to and use of medications may be a significant area of disparity that impacts clinical outcomes. This study analyzed serum phosphorus for 8,120 patients across 373 centers. A subgroup analysis was performed on 1094 patients to analyze phosphorus results by race and ethnicity. Mean serum phosphorus levels were analyzed over 2 time periods: 9-months prior to enrollment in Rx and 1 year post-enrollment. A mixed-model analysis was performed so that all available data would be used for the estimates of mean values at each quarterly time point. The mean values for phosphorus were calculated as least squares estimates to allow for the inclusion of all patients. As of January 2009, Black and Hispanic populations were over represented in the Rx population, with 72% of those using Rx in one of these groups, compared to only half of all patients in these groups. After 1 year of using Rx, patients were more likely to move from suboptimal (>5.5 mg/dl) to optimal (< 5.5 mg/dl) serum phosphorus levels compared to non- Rx users (6% vs. 3%) and the effect was even more pronounced in Blacks (8% Rx vs. 2% non-Rx). These results indicate that Rx is used disproportionately more by Black and Hispanic populations suggesting an unmet need in these groups. Significant improvements in phosphorus control, particularly in Black patients using Rx, illustrates that timely access to needed medications can improve clinical outcomes in this group, and thus fills an important gap in care.

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