Implementing Effective Care Using KDIGO Guidelines for Mineral and Bone Disorders (CKD-MBD) in Hemodialysis

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Background: Medicare spent over $114, more than 23 percent of its budget, on end stage renal disease (ESRD) in 2018. Mineral and bone disease, which can lead to bone loss, osteoporosis, fractures, and vascular calcification is common in ESRD, and cardiovascular disease is the leading cause of ESRD mortality.

Local Problem: Kidney Disease Improving Global Outcomes (KDIGO) guidelines recommend considering a trend of three indicators to assess vascular calcification risk. In December 2018 at North Tulsa Fresenius, 46% of patients had all three indicators within range compared to the national average of 60%. The aim was to increase comprehensive bone mineral care to more than 90% in 90 days using KDIGO guidelines with checklist & care coordination log.

Methods: The project utilized four rapid plan-do-study-act (PDSA) cycles with interventions for screening, care coordination log, and patient and team engagement concurrently. Interventions: A provider checklist evaluated risks with KDIGO guidelines. A patient engagement tool with education and motivational Interviewing (MI) was then used. Patients with risks were followed on a log. Team engagement was improved with a checklist. All four interventions had iterative changes throughout four PDSA cycles.

Results: Over 8 weeks the checklist was refined, and documentation was significantly improved. Phosphorus and parathyroid hormone (PTH) decreased significantly. Patient engagement with MI was standardized and improved patient readiness for change. The care coordination log identified concerns and gaps in care.

Conclusion: Care was effective using KDIGO guidelines in a SBIRT model with standardized patient engagement.

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