Effect of an Integrated Care Delivery System on Improving Immunization Outcomes

Mahesh Krishnan, MD, MPH, MBA, FASN\textsuperscript{1}; Susan Rizkalla, RN, CNN\textsuperscript{2}; Steven Mitchener\textsuperscript{2}; Barrett Johnson\textsuperscript{2}; David Van Wyck, MD\textsuperscript{2}; Allen Nissenson, MD, FACP\textsuperscript{2}

\textsuperscript{1}DaVita Clinical Research, Minneapolis, MN; \textsuperscript{2}DaVita Inc., Denver, CO

Background: Pneumococcal vaccination and seasonal influenza vaccination each lower the risk of hospitalization and death in dialysis patients (pts). Those pts who receive both vaccines show the lowest risk. Using an integrated care intervention model similar to that proposed for accountable care organizations under healthcare reform, we undertook a systematic effort over the past 3 years to improve vaccination rates among in-center hemodialysis (HD) pts.

Methods: At the onset, clinical leadership recommended a goal of 90% of pts to receive pneumococcal vaccination (1x in past 5 years or 2x in lifetime), and 90% to receive seasonal influenza (annually). Operational leadership assigned a high priority to the effort, coordinated communications and management, provided implementation resources, applied process engineering approaches to identifying barriers and best practices, and assured adequate vaccine supply. IT systems were developed to report facility performance and identify unvaccinated pts in real time. Facility interdisciplinary care teams used teaching tools and daily exception reports during the flu vaccination season.

Results: Vaccination rates in the population of ~120,000 pts improved progressively during the period of intervention. By March 31, 2011, the goal of 90% seasonal and pneumococcal vaccination rate was achieved (Figure). The percentage of pts who declined influenza vaccination for allergy was very low (0.6%) in 2010.

Conclusions: Integrated care affords the ability to align incentives, communicate consistently, report comprehensively, and standardize care. Our results show that the integrated care model can be dramatically successful in improving vaccination rates within a large population of HD pts, and that care processes within large dialysis providers are well-suited to serve as potential accountable care organizations.

Abstract selected for presentation at ANNA's 43rd National Symposium, Orlando, FL, 2012