Effect of IMPACT Program on Mortality Among Incident Hemodialysis Patients

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Introduction: IMPACT (Incident Management of Patients, Actions Centered on Treatment) is designed to reduce mortality in incident patients during the first 3 months of dialysis. IMPACT, initiated in October 2007, standardizes the incident patient on-boarding process. The program provides a structured process and dedicated materials for patient intake, education, management and reporting.

Methods: This was an observational, nonrandomized, unblinded study of the effect of the IMPACT program on mortality among IMPACT and non-IMPACT hemodialysis patients at 44 DaVita dialysis facilities. Incident patients were defined as those whose first day of DaVita dialysis was within 30 days of their first day of dialysis ever. They were evaluated up to the earlier of 365 days or their expiration. Mortality rate is reported per quarter and cumulative mortality over 4 quarters. Method 1 analysis maintained a constant sample size over time and includes patients with a complete record of survival or death over 1 year. Method 2 analysis calculated time-at-risk-based mortality, in which all new to dialysis patients were included if they had at least 1 day of treatment during the 1-year period.

Results: By Method 1, mortality was significantly lower in IMPACT patients (N=417) per individual quarter compared to the non-IMPACT patients (N=12,855; 0.10≤P<0.05 for Q1-3, P≤0.05 for Q4), and mortality declined rapidly and consistently each quarter. Cumulative data showed significantly lower mortality among IMPACT patients compared to non-IMPACT patients as early as Q1 (0.10≤P≥0.05) and continued to end of Q4 (P≤0.05). By Method 2, there was a similar trend toward lower mortality among IMPACT patients (N=732) compared to non-IMPACT patients (N=30,542) in the latter half of the year, in both the per-quarter and cumulative analyses.

Conclusions: The IMPACT program demonstrated lowered mortality among incident hemodialysis patients. This benefit is likely a result from focused patient management, especially in placing fistula access, at facilities using the IMPACT program.

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