More frequent hemodialysis may increase median survival and improve monthly mortality rates for nursing home patients

Survival comparison of daily home hemodialysis vs. conventional dialysis in the nursing home setting

Yang A, Lee WY, Hocking K. – In this epidemiological study of 3,919 nursing home patients (n=3,391 conventional, n=528 daily home hemodialysis), patients receiving daily home hemodialysis treatments (5 times/week) experienced lower monthly mortality rates and generally improved health status compared to patients receiving conventional dialysis treatment (3 times/week).

“In general, nursing home patients on dialysis are a higher acuity population compared to the broader ESRD population, and historically, this population has been associated with poorer outcomes.”


Lower monthly mortality rate among daily home hemodialysis nursing home patients

Patients treated in the nursing home setting with daily home hemodialysis (5 times/week) had a lower monthly mortality rate vs. those receiving conventional hemodialysis (3 times/week).

Laboratory analyses

When compared to conventional dialysis nursing home patients, home hemodialysis nursing home patients had similar hemoglobin values, similar or higher albumin, and similar or lower ferritin during the follow-up period.

Study Design: This study is a retrospective analysis of the incident populations of daily home (n=528) vs. conventional hemodialysis (n=3,391) nursing home patients. Health status was assessed by mortality and laboratory value analyses. Kaplan-Meier survival analysis was used to estimate median overall survival.

Study Strengths: A large population of conventional dialysis patients (treated 3 times/week) and home hemodialysis patients (treated 5 times/week) in the nursing home setting was analyzed over a long follow-up period. Baseline characteristics of the study population were well matched.

Study Limitations: The analysis population was obtained from only one dialysis provider and may not be applicable to the population in general. The timeframes of data collection were not identical in the home hemodialysis and conventional hemodialysis cohorts, which may influence results. This is a retrospective study and does not provide a definitive assessment of the impact of conventional vs. daily home hemodialysis.

Important Information: The NxStage System One is a prescription device and, like all medical devices, involves some risks. The risks associated with hemodialysis treatments in any environment include, but are not limited to, high blood pressure, fluid overload, low blood pressure, heart-related issues, and vascular access complications. The medical devices used in hemodialysis therapies may add additional risks including air entering the bloodstream, and blood loss due to clotting or accidental disconnection of the blood tubing set. Patients should consult with their doctor to understand the risks and responsibilities of home and/or more frequent hemodialysis using the NxStage System One. Additionally, the reported benefits of home and/or more frequent hemodialysis may not be experienced by all patients. Patients and providers are encouraged to contact their state regulators to discuss state-specific regulations that may impact dialysis in the skilled nursing facility setting.