We conclude that a formalized access program decreases catheter rates, central line-associated bloodstream infection, and the resultant hospitalizations, mortality, and costs” Rosenberry et al (2018).

Abstract:

INTRODUCTION: Centers for Medicare and Medicaid Services have determined that chronic dialysis units should have <12% of their patients utilizing central venous catheters for hemodialysis treatments. On the Eastern Shore of Maryland, the central venous catheter rates in the dialysis units averaged >45%. A multidisciplinary program was established with goals of decreasing catheter rates in order to decrease central line-associated bloodstream infections, decrease mortality associated with central line-associated bloodstream infection, decrease hospital days, and provide savings to the healthcare system.

METHODS: We collected the catheter rates within three dialysis centers served over a 5-year period. Using published data surrounding the incidence and related costs of central line-associated bloodstream infection and mortality per catheter day, the number of central line-associated bloodstream infection events, the costs, and the related mortality could be determined prior to and after the initiation of the dialysis access program.

RESULTS: An organized dialysis access program resulted in a 82% decrease in the number of central venous catheter days which lead to a concurrent reduction in central line-associated
bloodstream infection and deaths. As a result of creating an access program, central venous catheter rates decreased from an average rate of 45% to 8%. The cost savings related to the program was calculated to be over US$5 million. The decrease in the number of mortalities is estimated to be between 13 and 27 patients.

CONCLUSION: We conclude that a formalized access program decreases catheter rates, central line-associated bloodstream infection, and the resultant hospitalizations, mortality, and costs. Areas with high hemodialysis catheter rates should develop access programs to better serve their patient population.

Reference: