Central venous catheters (CVCs) cause approximately 250,000 central line-associated blood stream infections (CLABSIs) annually in hospitals in the U.S.; this contributes to increased patient morbidity, mortality and hospital costs. Interventions were developed by DaVita Hospital Services Group (HSG) and Yale New Haven Hospital (YNHH) to address hemodialysis (HD) catheter-related CLABSIs at YNHH. The results indicate the potential benefit of implementing these interventions across hospitals to reduce CLABSIs and enhance patient safety.

As of May 2016, YNHH had experienced 14 CLABSI cases related to HD catheters over the past 18 months. With HSG, they identified risks associated with CLABSIs and implemented the following guidelines:

- Upon admission, identify dialysis patients with a CVC and document:
  - Missing or soiled dressing
  - Patients with a fever >100.4 (they should have blood cultures drawn by end of second day of admission)
  - Unauthorized access of CVCs by non-dialysis personnel
  - CVCs without hemodialysis labels, documenting lumen dwell and date of dressing change
  - Signs and symptoms of infection (site redness, warmth or purulent drainage)
  - Blood cultures obtained
- Follow up with hospital leadership when interventions are not documented in the patient record
- Day 3 of admission or after—report positive blood cultures
  - Investigate CVC use and insertion of all invasive lines and tubes
  - Review CVC dialysis flow sheet documentation
- Re-educate the dialysis nurses on care of CVCs
- Implement staff CVC training program
- Report CLABSI performance during Joint Dialysis Operations Committee meeting

The CLABSI interventions were executed at the end of May 2016. As of October 2017, there have been no new cases of CLABSI. These results strongly suggest that following a clear protocol to address CLABSI incidences can reduce, if not eradicate, CLABSIs and enhance patient safety.

Abstract selected for presentation at ANNA National Symposium, Las Vegas, 2018