



## 2021 ANNA NATIONAL SYMPOSIUM

### **Infection Prevention through Collaboration in Hemodialysis Line Care**

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Through transformational leadership, specialized acute care hemodialysis (HD) nurses collaborated with ICU nurses at the bedside of Continuous Renal Replacement Therapy (CRRT) patients to decrease central line infections, improve patient safety, and empower peer nurses through real-time audits and education.

CRRT requires expertise delivered in the ICU setting with the support of HD nurses. Current evidence supports the use of HD-specific connectors and caps when de-accessing lines in order to prevent CLABSIs, air emboli, and bleeding. A learning needs assessment revealed inconsistent understanding and application of such connectors and caps by ICU nurses performing CRRT, posing potential safety risks.

For this initiative, HD nurses collaborated with ICUs to develop an education plan addressing proper HD line care in adult ICUs. Information about HD line care, safety concerns, and re-education on evidence-based specialty connectors and caps was presented to multiple shared governance committees and key stakeholders. Education was reinforced by placing new toolkits on all CRRT machines. To support practice change, weekly audits with just-in-time education have been ongoing for 18 months.

CRRT-related CLABSI rates per 1,000 CRRT patient days were calculated across adult ICUs. Pre-intervention rates were at a concerning high of 4.27 in July 2018 and paralleled the initial observation of inconsistent, unsafe practice. The intervention phase began with planning, followed by implementation to include initial education, toolkit construction, and weekly audits with just-in-time education. Post-intervention rates fell to 0 in February/March of 2019, bumped to 3.26 in April 2019, returned to 0 in May 2019 and minimal incidence of CRRT-related CLABSI events over the subsequent year, indicating successful integration into practice.

The partnership between adult ICUs and HD nurses resulted in improved outcomes in patients receiving CRRT. Dissemination extended beyond the adult ICUs to create positive change at the organizational level through a reduction in overall HD-related CLABSI rates.

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