

“In patients with CLABSIs outside of the ICU, only 10.6% received dialysis prior to infection. However, underlying hematologic malignancy, neutropenia, and PICC lines were highly prevalent in this population” Rhee et al (2015).

Reference:

Rhee, Y., Heung, M., Chena, B. and Chenoweth, C.E. (2015) Central Line-Associated Bloodstream Infections in Non-ICU Inpatient Wards: A 2-Year Analysis. Infection Control & Hospital Epidemiology. January 23rd. .

Abstract:

OBJECTIVE: Little is known about patient-specific factors contributing to central line-associated bloodstream infection (CLABSI) outside of the intensive care unit (ICU). We sought to describe these factors and hypothesized that dialysis patients would comprise a significant proportion of this cohort.

DESIGN: Retrospective observational study from January 2010 to December 2011.

SETTING: An 880-bed tertiary teaching hospital.

PATIENTS: Patients with CLABSI in non-ICU wards.

METHODS: CLABSI patients were identified from existing infection-control databases and primary chart review was conducted. National Health and Safety Network (NHSN) definitions were utilized for CLABSI and pathogen classification. CLABSI rates were calculated per patient day. Total mortality rates were inclusive of hospice patients.

RESULTS: Over a 2-year period, 104 patients incurred 113 CLABSIs for an infection rate of 0.35 per 1,000 patient days. The mean length of hospital stay prior to CLABSI was 16±13.3 days, which was nearly 3 times that of hospital-wide non-ICU length of stay. Only 11 patients (10.6%) received dialysis within 48 hours of CLABSI. However, 67% of patients had a hematologic malignancy, and 91.8% of those admitted with a malignant hematologic diagnosis were neutropenic at the time of CLABSI. Enterococcus spp. was the most common organism recovered, and half of all central venous catheters (CVCs) present were peripherally inserted central catheters (PICC lines). Mortality rates were 18.3% overall and 27.3% among dialysis patients.

CONCLUSIONS: In patients with CLABSIs outside of the ICU, only 10.6% received dialysis prior to infection. However, underlying hematologic malignancy, neutropenia, and PICC lines were highly prevalent in this population.

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