“Most CLABSIs identified among hematology, oncology, and stem cell transplant patients met MBI-LCBI criteria, and CLABSI prevention efforts did not reduce these infections” Metzger et al (2015).

Reference:

Metzger, K.E., Rucker, Y., Callaghan, M., Churchill, M., Jovanovic, B.D., Zembower, T.R. and Bolon, M.K. (2015) The Burden of Mucosal Barrier Injury Laboratory-Confirmed Bloodstream Infection among Hematology, Oncology, and Stem Cell Transplant Patients. Infection Control and Hospital Epidemiology. 36(2), p.119-24.

Abstract:

OBJECTIVE: To evaluate the impact and burden of the new National Healthcare Safety Network surveillance definition, mucosal barrier injury laboratory-confirmed bloodstream infection (MBI-LCBI), in hematology, oncology, and stem cell transplant populations.

DESIGN: Retrospective cohort study.

SETTING: Two hematology, oncology, and stem cell transplant units at a large academic medical center.

METHODS: Central line-associated bloodstream infections (CLABSIs) identified during a 14-month period were reviewed and classified as MBI-LCBI or non-MBI-LCBI (MBI-LCBI criteria not met). During this period, interventions to improve central line maintenance were implemented. Characteristics of patients with MBI-LCBI and non-MBI-LCBI were compared. Total CLABSI, MBI-LCBI, and non-MBI-LCBI rates were compared between baseline and postintervention phases of the study period.

RESULTS: Among 66 total CLABSI cases, 47 (71%) met MBI-LCBI criteria. Patients with MBI-LCBI and non-MBI-LCBI were similar in regard to most clinical and demographic characteristics. Between the baseline and postintervention study periods, the overall CLABSI rate decreased from 3.37 to 3.21 infections per 1,000 line-days (incidence rate ratio, 0.95; 4.7% reduction, P=.84), the MBI-LCBI rate increased from 2.08 to 2.61 infections per 1,000 line-days (incidence rate ratio, 1.25; 25.3% increase, P=.44), and the non-MBI-LCBI rate decreased from 1.29 to 0.60 infections per 1,000 line-days (incidence rate ratio, 0.47; 53.3% reduction, P=.12).

CONCLUSIONS: Most CLABSIs identified among hematology, oncology, and stem cell

transplant patients met MBI-LCBI criteria, and CLABSI prevention efforts did not reduce these infections. Further review of the MBI-LCBI definition and impact is necessary to direct future definition changes and reporting mandates.

**Thank you to our partners for supporting IVTEAM**