To determine if severe neutropenia at the time of chest port insertion is a risk factor for port removal and central catheter-associated bloodstream infection (CCABSI) in pediatric patients” Hoss et al (2016).

Abstract:

PURPOSE: To determine if severe neutropenia at the time of chest port insertion is a risk factor for port removal and central catheter-associated bloodstream infection (CCABSI) in pediatric patients.

MATERIALS AND METHODS: From May 2007 to June 2015, 183 consecutive patients (mean age, 9.9 y; range, 0.75-21 y) had a port inserted at a single tertiary pediatric center. Seventy-two had severe neutropenia at the time of port insertion (absolute neutrophil count range, 0-500/mm3; mean, 185/mm3). Follow-up until port removal or death and CCABSI events were recorded.

RESULTS: Within the first 30 days, similar incidences of CCABSI (12.5% of patients with severe neutropenia [n = 9] vs 4.5% of patients without [n = 5]), port removal for infection
Considerations for implantable port placement in a neutropenic patients?

(2.8% [n = 2] vs 2.7% [n = 3]), and local port infection (2.8% [n = 2] vs 0.9% [n = 1]) were observed in both groups (P > .05), but the rate of CCABSI per 1,000 catheter-days was higher for patients with severe neutropenia (P = .045). Overall, similar incidences of CCABSI (18.1% [n = 13] vs 16.2% [n = 18]), port removal for infection (2.8% [n = 2] vs 7.2% [n = 8]), local port infection (2.8% [n = 2] vs 2.7% [n = 3]), and CCABSI per 1,000 catheter-days (0.332 vs 0.400) were observed in both groups (P > .05).

CONCLUSIONS: Port placement in patients with severe neutropenia can be performed without an increased incidence of port removal for infection. The majority of CCABSI were successfully treated without port removal.

Reference:

Thank you to our partners for supporting IVTEAM