Antibiotic lock therapy in pediatric patients with central line-related bloodstream infection | 1

“This retrospective study was unable to identify any benefit of adjunctive ALT in pediatric oncology patients with CRBSI. The available evidence does not support routine ALT use, and well-conducted prospective studies are needed.” Wolf et al (2014)

Reference:


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Abstract:

Background: Long-term central venous catheters (CVCs) are essential to modern pediatric oncology practice, but central line-related bloodstream infection (CRBSI) is a frequent and important complication. CVC salvage is often attempted but treatment failure is common due to persistent infection, delayed catheter removal, or subsequent relapse of infection, which can be associated with significant morbidity and cost. Adjunctive antibiotic lock therapy (ALT) has been proposed to reduce the risk of treatment failure, but insufficient data are available to confirm efficacy of this intervention.
Procedure: We undertook a retrospective matched cohort study of ALT use for treatment of CRBSI in pediatric hematology/oncology patients at St. Jude Children’s Research Hospital between 2006 and 2012.

Results: Thirty-eight eligible episodes of CRBSI treated with adjunctive ALT were identified and compared to 73 episodes treated with standard therapy (ST) alone, matched by catheter-type and organism. Overall, treatment failure was similar between ALT and ST groups (50.0 vs. 38.4%; $P = 0.24$), but the timing was different; in the ALT cohort, immediate CVC removal was less common (0.0 vs. 12.3%; $P = 0.03$) but delayed removal (4–13 days) and relapse of infection was more common (50.0 vs. 24.7%; $P = 0.01$).

Conclusions: This retrospective study was unable to identify any benefit of adjunctive ALT in pediatric oncology patients with CRBSI. The available evidence does not support routine ALT use, and well-conducted prospective studies are needed.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).