



This study aims to evaluate catheter salvage strategy in children with *S. aureus* CLABSI, and to determine treatment failure rates and associated risk factors” Alby-Laurent et al (2019).

Abstract:

**Introduction:** Current international guidelines strongly recommend catheter removal in case of *S. aureus* central line-associated bloodstream infection (CLASBI), but a catheter salvage strategy may be considered in children given age-related specificities. No data is available regarding the outcome of this strategy in children. This study aims to evaluate catheter salvage strategy in children with *S. aureus* CLABSI, and to determine treatment failure rates and associated risk factors.

**Methods:** We retrospectively analyzed data for all children <18 years having *S. aureus* CLABSI on a long-term central venous catheter in a tertiary hospital from 2010 to 2014. We defined catheter salvage strategy as a central venous catheter left in place  $\geq 3$  days after initiation of empiric treatment for suspected bacteremia, and catheter salvage strategy failure as the persistence or relapse of bacteremia with a *S. aureus* strain harboring the same antibiotic susceptibility pattern, or the occurrence or the worsening of local or systemic infectious complication between 72 h and 28 days after the first positive blood culture.

**Results:** During the study period, 49 cases of *S. aureus* CLABSI on long-term central venous catheters were observed in 41 children (including 59% with long-term parenteral nutrition) and 6 (15%) isolates were resistant to methicillin. A catheter salvage strategy was chosen in

37/49 (76%) cases and failed in 12/37 (32%) cases. Initial presence of bloodstream co-infection, serum concentration of vancomycin under the targeted value and inadequate empiric treatment were significantly associated with catheter salvage therapy failure. Conclusions: The catheter salvage strategy of *S. aureus* CLABSI on a long-term central venous catheter was frequent in the studied hospital and failed only in one third of cases.

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### Full Story

#### Reference:

Alby-Laurent, F., Lambe, C., Ferroni, A., Salvi, N., Lebeaux, D., Le Gouëz, M., Castelle, M., Moulin, F., Nassif, X., Lortholary, O., Chalumeau, M. and Toubiana, J. (2019) Salvage Strategy for Long-Term Central Venous Catheter-Associated *Staphylococcus aureus* Infections in Children. *Frontiers in Pediatrics*. January 25th. eCollection 2018.

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