Abstract:

BACKGROUND: International guidelines recommend to limit the long-term use of central-veinous catheters in patients undergoing hemodialysis, because they expose the patient to a higher infectious risk than the fistulas. However, for some patients with comorbidity, switching to a permanent vascular access is not possible. In such case, the catheter is used for a longer period. It seems therefore important to study the influence of a prolonged duration of catheterization on infectious complications. The temporal fluctuation profile of the infectious risk is poorly studied in the literature and the results published may be contradictory.

METHODS: This multicentric prospective study included 1053 incident tunneled catheters. Multivariate logistic regression was used to identify significant risk factors of infection. An infection-free survival analysis was performed afterwards to estimate the variation of the instantaneous infectious risk during catheterization.
RESULTS: The major risks factors of infections on tunneled catheters were: previous Staphylococcus aureus infection (aOR=1.95 [1.16-3.27]; P=0.012), diabetes (aOR=1.67 [1.16-2.41]; P=0.006), and long duration of catheterization (0-3months vs.≥24months: aOR=2.42 [1.34-4.36]; P=0.003). The survival analysis showed a higher risk of infections of tunneled catheters during the first months after placement. Risk declines over time.

CONCLUSIONS: The fluctuation profile of the infectious risk show that preventive precautions should target the first months of catheterization.

Reference:


Thank you to our partners for supporting IVTEAM