**TAUROLIDINE-CITRATE LOCK: RISK FACTORS ASSOCIATED WITH A FAILURE OF CATHETER-RELATED BLOODSTREAM INFECTION PREVENTION IN HOME PARENTERAL NUTRITION IN ADULTS**

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**Rationale:** Several studies have shown an efficacy of taurolidine to decrease about 50% in catheter-related bloodstream infection (CRBSI). In our practice, taurolidine-citrate lock (TCL) is used as primary and secondary prevention. The aim of this study was to analyse the risk factors associated with a failure of TCL.

**Methods:** 3-years retrospective study from 2012 including HPN patients with chronic intestinal failure (IF) with a TCL. Data collected included demographic, comorbidities, type of intestinal failure, HPN length, kind of IV catheter, previous catheter and CRBSI history. Patients and catheters were described using median (min–max). Kaplan-Meier method was used to study CRBSI occurrence and a multivariate Poisson regression was used to estimate adjusted incidence rate ratios (IRR) with their 95% confidence intervals (CI) of CRBSI.

**Results:** 141 patients were included (61 males); 271 catheters (99,366 catheters-days): 115 Broviac, 89 PICC 1 lumen, 39 chambers and 24 PICC 2 lumens. Age was 57 years (18-86) and indications of HPN included short bowel (68%) and CIPO (9%); 54% had a stomy. HPN duration was 2 years (0.3-27.4) with 6 (2-7) bags per week. 57 patients (90 catheters – 31,401 catheter-days) had 119 CRBSI (1 to 9), corresponding to a CRBSI incidence rate of 1.2/1,000 catheter-days (95%CI 1.0-1.4). Multivariate analysis indicated that PICC 2 lumens (IRR 14.4, 95%CI 4.9-42.3), PICC 1 lumen (IRR 3.1, 95%CI 1.2-8.3), more than 4 bags per week (IRR 3.5, 95%CI 1.7-7.1) and non-compounding PN bag (IRR 1.5, 95%CI 1.0-2.3) were statistically and independently associated with an increased risk of CRBSI.

**Conclusion:** Among HPN patients with IF, risk factors associated with TCL failure are mostly in relation with venous access (catheter type, frequency and kind of PN) rather than with the nature of IF or comorbidities per se.

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