

Abstract:

Background & aims: The use of long-term taurolidine locks (LTTL) seems to be effective in preventing catheter-related blood stream infections (CRBSI), especially in patients on home parenteral nutrition (HPN). This work targets the cost-effectiveness of LTTL in a cohort of adult HPN patients.

Methods: A monocentric mirror-image design study was conducted in our referral centre among long-term HPN patients experiencing recurrent CRBSI. From 7th January 2011, LTTL were started after the third CRBSI episode within 12 months. CRBSI data was prospectively collected until 7th January 2013, in the same way as it had retrospectively been done before initiating LTTL. A cost-effective analysis was conducted to estimate the incremental costs and effects on CRBSI with LTTL. The efficacy of LTTL on CRBSI rate was assessed over 1000 days of catheter use.

Results: A total of 31,100 catheter days were analysed in 37 patients (median) aged 58 [42-68] years. The mean \pm SD proven CRBSI rate was 3.18 ± 3.51 per 1000 catheter days before the introduction of LTTL and 0.39 ± 1.50 per 1000 catheter days after its introduction ($p < 0.0001$). Considering both proven and probable CRBSI requiring hospital management, LTTL reduced by (mean) -2.63 infections per patient (from 2.89 [2.31 to 3.49] before to 0.26 [0.13 to 0.41] after) as well as incremental costs by -7 258 € (from 11 176 [8 004 to 14 968] € before to 3 918 [2 390 to 5 445] € after).

Conclusion: Implementing LTTL to prevent recurrent CRBSI is cost-effective by dramatically decreasing their incidence.

Reference:

Lannoy D, Janes A, Lenne X, Neuville S, Bourry J, Odou P, Bruandet A, Seguy D. Cost-effectiveness of taurolidine locks to prevent recurrent catheter-related blood stream infections in adult patients receiving home parenteral nutrition: a 2-year mirror-image study. *Clin Nutr.* 2021 Jan 29;S0261-5614(21)00027-3. doi: 10.1016/j.clnu.2021.01.017. Epub ahead of print. PMID: 33583660.