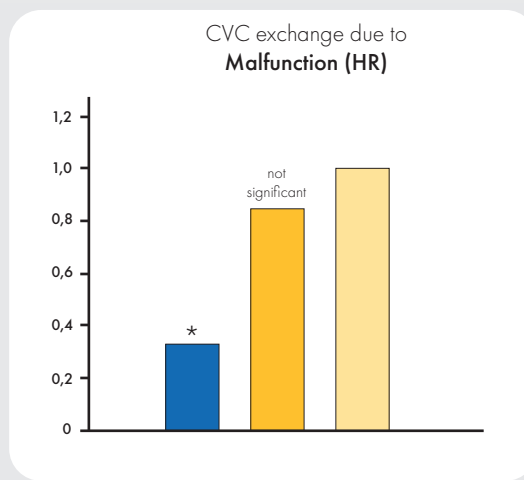
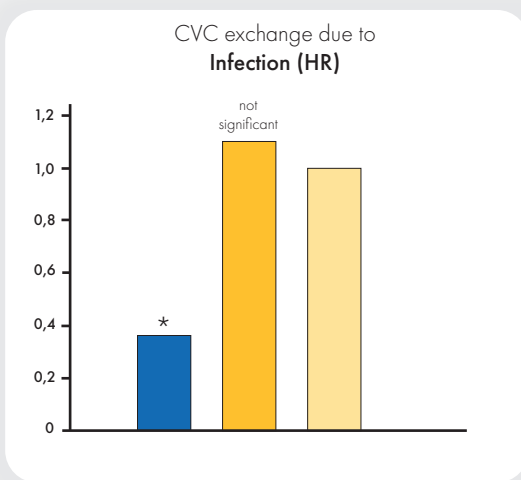


TauroLock™ HEP500 in Dialysis

„THE BEST SOLUTION DOWN THE LINE“

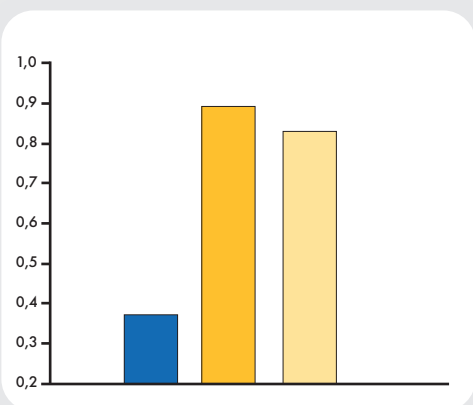
1. Significantly lower hazard ratio (HR) for CVC removal ($p \leq 0.05$)* with TauroLock™-HEP500

- TauroLock™-HEP500 (96 % TauroLock™-HEP500 / 4 % TauroLock™) ■
- High-concentrated citrate (46.7% citrate) ■
- Low-concentrated citrate (4% and 30% citrate) ■, set as Reference



No significant differences between high-concentrated citrate lock solutions and low-concentrated lock solutions were observed for exchange due to infection and malfunction, respectively ($p=0.64$ and 0.39).

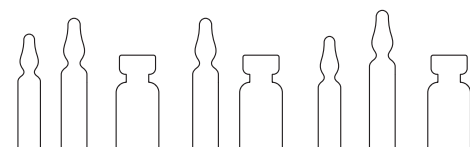
2. Lower incidence rate of proven catheter-related BSI per 1000 CVC days:



“
Our findings suggest that taurolidine-based lock solutions may be superior to citrate-based lock solutions in terms of infections and catheter malfunction.
 ”

Van Roeden S., van Oevelen M., Abrahams A.C., Dekker F.W., Rotmans J.I., Meijvis S.C.A. on behalf of the DUCATHO study group, 2021

„The best solution down the line: an observational study on taurolidine - versus citrate-based lock solutions for central venous catheters in hemodialysis patients“ *BMC Nephrology* volume 22:308
 Retrospective, observational, multicenter study over five years, 1514 hemodialysis patients.



TauroLockTM HEP 500 in Dialysis

Guidelines:

- Position Statement of the European Renal Best Practice (ERBP) 2010:**
 „Recommendation B.3.1: The preventive use of antimicrobial locks is advocated to reduce the rate of CRBSI.“
 “(...) no benefit regarding infectious complications was observed for citrate at 4%...” “Recommendation B.3.2: In view of the potential risks of spillover of the locking solution (...) the 4% solution seems to offer at present the best benefit/risk ratio.”
- Prevention of infections related to implantable ports for venous access 2012, French Society of hospital hygiene (SF2H):**
 “...taurolidine or any other compound with proven efficacy in preventing catheter-infections should be preferentially used...”
- Vascular access for haemodialysis, Clinical Practice guideline 2015, UK renal association:**
 “Catheter lock solutions have been increasingly studied... Concerns have been raised about the development of antimicrobial resistance and inadvertent infusion of high concentration of citrate, only 4% citrate should be used in this setting.”
- Guideline on Hemodialysis Catheters 2018, Australian Department of Health:**
 “Taurolidine
 Very broad-spectrum antimicrobial activity. Decreases development of biofilm. Associated with a reduced CRBSI rate compared to heparin. May be equally effective in preventing catheter occlusion due to thrombosis as heparin.”
- Guideline for Infection prevention and hygiene 2019, German Society for Nephrology (DGfN):**
 “Taurolidine and gentamicin exert only antimicrobial effectiveness. Citrate solutions show ... – in higher concentrations – at least partially antimicrobial properties, which is, however, insufficient against Staph. aureus.”
- Standards of Practice 2021, Infusion Nurses Society (INS):**
 “Monitor sodium citrate, an anticoagulant with antimicrobial effects, for systemic anticoagulation, hypocalcemia that could produce cardiac arrest, and protein precipitate formation with concentrations greater than 12%. (III)”
 “Monitor trisodium citrate for protein precipitation, which could cause lumen occlusion. (V)”

