ANTIMICROBIAL CATHETER LOCK SYSTEM
TO PROVIDE PATENCY AND INFECTION CONTROL

TauroLock™

ANTIMICROBIAL CATHETER LOCK SYSTEM
TO PROVIDE PATENCY AND INFECTION CONTROL
Prophylaxis against catheter related bloodstream infections:

Central venous catheters (CVC) are used as short or long term vascular access devices in hemodialysis, oncology, ICU and total parenteral nutrition. High risks for CVC malfunction are catheter related infections (CRI). These infections may be triggered by microbial colonization of the catheter and the microorganisms can spread from here to the bloodstream. CRI may develop septic symptoms which require the immediate removal of the catheter.

TauroLock™ catheter lock solutions do not contain antibiotics and were developed for prophylactic use. They reduce catheter related infections significantly (~ 90%).

The combination of citrate (4%) with (cyclo)-tauroldidine and heparin/urokinase has excellent anticoagulative and anti-microbial properties also against resistant microorganisms like MRSA und VRE.

Therefore TauroLock™ is recommended as an antimicrobial lock solution in different guidelines such as the German Dialysis Standard, the guidelines from the German Society of applied Hygiene in Dialysis and the evidence-based recommendations of the German Society for Paediatric Oncology and Hematology (GPOH).

Prophylaxis against biological occlusion in the catheter:

The TauroLock™ Catheter Lock System contains a threefold prophylaxis against occlusion in the catheter: All locking solutions contain 4% citrate as anticoagulant. This concentration removes calcium safely and effectively from the clotting cascade.

The optional use of low concentrated heparin supports an additional anticoagulative effect via binding to antithrombin. The prophylactic use of TauroLock™-U25.000 (which contains 25,000 IU of urokinase) achieves the best prophylaxis against occlusion by prevention of biological clotting.

The decision which locking solution is most adequate depends on the individual patient situation. The alternative use of different locking solutions in the same catheter (e.g. TauroLock™-HEP500, TauroLock™-U25.000) is possible.
TauroLock™ is bactericidal and fungicidal within 2 hours:

**Legend**
- **S. aureus (MRSA)**
- **P. aeruginosa**
- **A. niger**
- **E. coli**
- **C. albicans**
- **S. epidermidis**

*Detection limit (10 cfu/ml)

Clearly superior in comparison to the activity of Citrate and Heparin:

If used prophylactically, TauroLock™ prevents the development of a biofilm on the surface of the catheter lumen:

- **Heparin Lock** – 7 months implanted – S. epidermidis biofilm covers surface completely
- **TauroLock™** 5 months implanted – No colonization
Instillation of TauroLock™

Follow the manufacturer’s instructions that accompany the particular vascular access product utilized. Specific catheter lock volumes are associated with each device.

1. Flush the device with 10 mL of saline.
2. Withdraw TauroLock™ from the container using an appropriate syringe.
3. Instill TauroLock™ slowly (not more than 1 mL per second, infants and children less than two years of age not more than 1 mL per 5 seconds) into the access device in a quantity sufficient to fill the lumen completely. Consult the manufacturer’s instructions for the specific fill volume or specify fill volume during implantation. The volume has to be strictly respected. TauroLock™ will remain inside the access device until the next treatment (up to a maximum of 30 days).
4. Prior to the next treatment, TauroLock™ must be aspirated (if desired and possible) and discarded in accordance with the institution’s waste policy.
5. Flush the device with 10 mL of saline.

Product selection for application

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<th>Product</th>
<th>TauroLock</th>
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TauroLock™ catheter lock solutions are available in different containers:

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<td>Ampoule (10 x 3 mL)</td>
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<td>Ampoule (10 x 5 mL)</td>
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<td>Vial (100 x 10 mL)</td>
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<td>Vial (5 x 5 mL)</td>
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Manufacturer:
TauroPharm GmbH
Jägerstraße 5a
D-97297 Waldbüttelbrunn
Tel.: +49 931 304299-0
Fax: +49 931 304299-29
ISO13485
1. GUIDELINES AND RECOMMENDATIONS


1.2. Diagnosis, prevention and treatment of haemodialysis catheter-related bloodstream infections (CRBSI): a position statement of European Renal Best Practice (ERBP)

1.3. European Society for Antimicrobial Therapy (United Kingdom, R. Fluck, M. Kumwenda) (2011)

1.4. Leitlinien für anwendbare Hygiene in der Dialyse Deutsche Gesellschaft für anwendbare Hygiene in der Dialyse e.V. DGuH 2013, Kapitel 9.5.8. Blocklösungen für ZVK und Port-Systeme. 3. Auflage


2. PUBLICATIONS: PROPHYLAXIS OF INFECTION IN DIALYSIS


2.3. A Randomized Double–Blind Controlled Trial of Taurolidine-Citrate Catheter Locks (vs. Heparin (5000 IU/mL) for the Prevention of Bacteremia in Patients Treated With Hemodialysis L. R. Solomon, J. S. Cheesbrough, R. Bhargava, N. Mitsides, M. Heap, S. Green, P. Diggle, Sem Dial 2012;25(2):233–8

2.4. Approach to Prolong the Use of Uncuffed Hemodialysis Catheters: Results of a Randomized Trial V. Filiopoulos, D. Hadjiyannakos, I. Koutis, S. Trompouki, T. Micha, J. Hospital Inf. 2012; 86: 304–309


3. PUBLICATIONS: PROPHYLAXIS OF INFECTION IN ONCOLOGY


4. PUBLICATIONS: PROPHYLAXIS OF INFECTION IN PARENTERAL NUTRITION


5. PROVIDE PATIENTS' ACCESS DEVICES BY USING UROKINASE


5.5. Publications on Antibacterial Activity of Taurol – Prevention of Biofilm


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