



Guideline for applied hygiene in dialysis

German Society for Applied Hygiene in Dialysis
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9.3.4.4 Intraluminal infections – special measures for infection prevention

... catheters with poor patency can increase the risk of infections since fibrin deposits can serve as a shield for germs against antimicrobial substances. A higher frequency of manipulation around a poorly performing catheter also increases the risk of colonisation via the point of access. Correct flushing and the use of a lock solution with suitable anticoagulants/fibrinolytics can reduce problems related to the flow rate.

Lock solutions for CVCs

... With regard to maintenance of patency, current research has shown a superiority of fibrinolytics (rt-PA, urokinase) over the ingredients heparin and citrate when used once a week. Malfunction rates are reduced significantly in comparison to heparin (5,000 IU/ml) and citrate (4 %).

The frequency of catheter-related infections is reduced significantly when using antimicrobially active lock solutions in comparison to heparin or 4 % citrate, in case of low as well as excessive infection rates. Expert associations / KRINKO therefore recommend using antimicrobial lock solutions. Meta-analyses confirm the efficacy of citrate solutions supplemented by additional antimicrobial ingredients (e.g. taurolidine). Data sets of highly concentrated citrate solutions are inconsistent. In clinical studies, a low concentrated citrate solution (4 %) cannot reduce the frequency of catheter-related infections.

(Translated from German)