



46.7% CitraFlow™ SF (sterile field):

46.7% anticoagulant/antimicrobial
Sodium Citrate prefilled syringe
for catheter locking.



Clinical studies have shown that the use of a 46.7% Sodium Citrate solution to lock indwelling catheters has significant advantages compared to existing standards of care :

- Avoids the risk of systemic heparinization
- Prevents exacerbation of active bleeding^{7,8,11}
- Reduction of clotting incidents^{4,5}
- Lower tPA utilization rates and costs^{4,5,7}
- Reduction of catheter exchange rates⁸
- Prevents the formation of biofilms^{3,6}
- Lowers the rate of catheter related bacteremia infections^{9,10}
- Safe for use in patients with HIT (Heparin Induced Thrombocytopenia)
- Improved INR reliability (international normalized ratio)
- Potential savings compared to other lock regimens^{1,2,5}
- Terminally sterilized. Sterile field compatible product
- Available in safe and convenient to use 5cc syringes and avoids the high pressure risks associated with smaller 3cc syringe sizes
- All natural. No artificial colors or preservatives



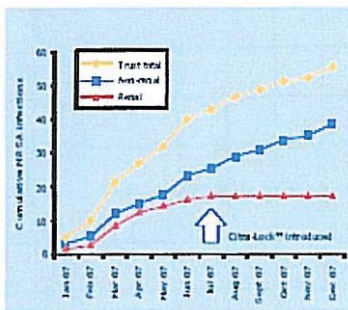
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CitraFlow™...

The natural way to lock catheters

Antimicrobial :

46.7% CitraFlow™ is a proven antimicrobial for reducing the rates of Central Line Associated Blood Stream Infections (CLABSIs)



St Bart's, renal unit (Royal London) has a proven record in managing MRSA, but the number of infections across the hospital has steadily increased as shown on this diagram. However, since the introduction of citrate (46.7%) to the renal department the number of MRSA infections has fallen from 2.7/1,000 haemodialysis days to 1.36/1,000 haemodialysis days. Citrate intervention provides significant benefit to patients, provides an extra 2-3 bed days to the hospital and provides savings of £100,000's.¹⁰



Catalog #	Description	Quantity/case
38143	One 3ml 46.7% Sodium Citrate solution in 5ml syringe	150 units / cs
38143-1	Twinpack of two 3ml 46.7% Sodium Citrate solution in 5ml syringe	100 units / cs (200 syringes)

1. Lok CE, et al. Trisodium citrate 4%-an alternative to heparin capping of haemodialysis catheters. Nephrol Dial Transplant Feb 2007;22(2):477-483.
2. Grudzinski L, et al. Sodium citrate 4% locking solution for central venous dialysis catheters-an effective, more cost efficient alternative to heparin. Nephrol Dial Transplant Feb 2007;22(2):471-476.
3. Shanks R. M. Q., et al. Catheter lock solutions influence staphylococcal biofilm formation on abiotic surfaces. Nephrol Dial Transplant (2006); Doi: 10.1093/ndt/gfl170.
4. Meeus Gert, et al. A prospective, randomized, double-blind crossover study on the use of 5% citrate lock versus 10% citrate lock in permanent hemodialysis catheters. Blood Purification 2005;23:101-105.
5. MacRe J et al, Citrate 4% versus Heparin and the reduction of thrombosis Clin, J. Am Soc. Nephrol 3:369-374 2008.
6. Calantha K. et al. Catheter related infections with Sodium Citrate locks compared to heparin locks in hemodialysis patients. Poster 2012 San Diego USA.
7. Ash SR (2000) Concentrated Sodium Citrate (23%) for Catheter Lock. Haemodialysis International 4:22-31.
8. Weijmer JC (2005) Randomized, Clinical Trial Comparison of Trisodium Citrate 30% and Heparin as Catheter-Locking Solution in Haemodialysis Patients. J Am Soc Nephrol. Sep; 16(9):2769-77.
9. Weijmer JC (2002) Superior Antimicrobial Activity of Trisodium Citrate over Heparin for Catheter Locking. Nephrol Dial Transplant 17:2189-2195.
10. Nolan JP (2007) Reducing Catheter Related Bacteraemia in Haemodialysis. Vascular Access Soc. 5th Int. Congress of Vascular Access Soc, Nice.
11. Winnet G (2008) Trisodium citrate (TSC) 46.7% selectively and safely reduces staphylococcal. Nephrol Dial Transplant 10:1093-1100.