

CitraFlow™

CitraFlow™ 4% SF (sterile field):

4% Sodium Citrate USP lock/flush prefilled syringes for central venous catheters.



safer THAN HEPARIN

- Avoids the risk of systemic heparinization
- Prevents exacerbation of active bleeding⁷
- Safe for use in patients with HIT (Heparin Induced Thrombocytopenia)
- Improved INR reliability (international normalized ratio)
- Recommended by the ERBP guidelines and ASDIN^{3,4}
- Terminally sterilized. Sterile field compatible product
- Available in safe and convenient to use 10cc prefilled syringes
- All natural. No artificial colors or preservatives
- No side effects

Clinical studies have shown that the use of a 4% anticoagulant Sodium Citrate solution to lock/flush central venous catheters has significant advantages compared to existing standards of care.

The current standard of care for intra-luminal catheter lock/flush therapy is “sub-standard” as the only two products used for catheter locking and flushing are saline and heparin. Now there is an alternative clinically proven to work in some of the most demanding clinical situations; hemodialysis catheter locking procedures. CitraFlow™ has proven its safety and effectiveness over and over, millions of times during the past 10 years of use in hemodialysis. CitraFlow™ is now finding its way into other markets as clinicians realize the many advantages associated with the use of low concentration Sodium Citrate solutions for locking/flushing^{9,10} central venous catheters.

MORE **effective** THAN SALINE

- Reduction of clotting incidents^{6,7}
- Lower tPA utilization rates and costs^{6,7}
- Reduction of catheter exchange rates¹
- Prevents the formation of biofilms^{5,8}
- Lowers the rate of catheter related bacteremia infections^{5,8}
- Potential savings compared to other lock regimens^{1,2,7}
- Reduction of hospitalisation

CitraFlow™ 4% SF

The natural, safe and effective way to lock/flush every central catheter.

Anticoagulant solution in prefilled syringes for locking/flushing central venous catheters.

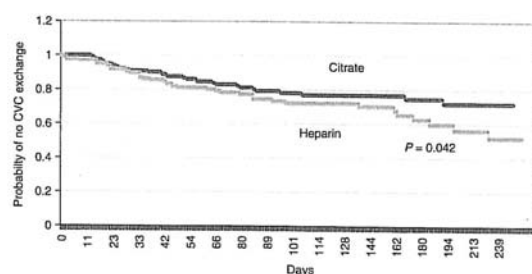
CitraFlow™ 4% is highly effective in maintaining catheter patency.

CitraFlow™ 4% works as an anticoagulant and decreases the incidence of infection.

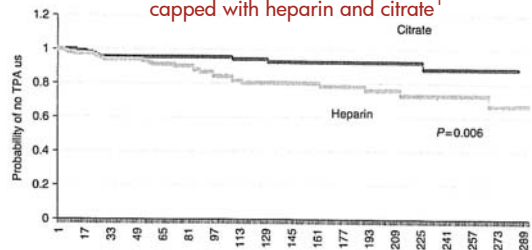
Sodium citrate 4% versus heparin as a lock solution in hemodialysis patients with central venous catheters⁸
Calantha K. et al, Am J Health-Syst Pharm. 2013; 70:131-6

Outcome	Heparin (n=60)	Sodium Citrate (n=60)	p
No. CRIs ^b	20	11	0.026
No. CRIs/1000 catheter-days	1.90	0.81	0.026
Organisms isolated from CRIs			
Enterobacter species	5	0.55	
MSSA	5	2	0.25
Other gram-positive species	4	2	0.42
Other gram-negative species	4	2	0.42
Pseudomonas aeruginosa	3	0	0.087
No. hospitalizations related to CRIs	16	9	0.064
No. thrombosis episodes	41	40	0.24
No. alteplase administrations	41	40	0.24
No. catheters exchanged or removed	34	18	0.002
No. catheters exchanged/1000 catheter-days	3.24	1.33	0.002

Time to catheter exchange of incident catheters¹



Comparison of the time to TPA requirement in new catheters capped with heparin and citrate¹



Catalog #	Description	Quantity/case
38543	3ml 4% Sodium Citrate solution USP in 5ml syringe	150 units / cs
38543-1	3ml 4% Sodium Citrate solution USP in 5ml syringe, twinpack.	100 packages / cs (200 units)
38553	3ml 4% Sodium Citrate solution USP in 10ml syringe	100 units / cs
38555	5ml 4% Sodium Citrate solution USP in 10ml syringe	100 units / cs
3854E1	5ml 4% Sodium Citrate solution USP in 5ml syringe	120 units / cs

For further information, please contact your representative.

- Lok CE, et al. Trisodium citrate 4%-an alternative to heparin capping of haemodialysis catheters. Nephrol Dial Transplant Feb 2007;22(2):477-483.
- 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.
- Moran J, Ash S R, et al. Locking Solutions for Hemodialysis Catheters; Heparin and Citrate - A Position Paper by ASDIN. Seminars in Dialysis-2008; DOI: 10.1111/j.1525-139X.2008.00466.x
- Vanholder R. et al. Diagnosis, prevention and treatment of haemodialysis catheter-related bloodstream infections (CRBSI): a position statement of European Renal Best Practice (ERBP). Nephrology Dialysis Transplantation Plus (2010) 3: 234-246.
- 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.
- 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.
- MacRe J et al, Citrate 4% versus Heparin and the reduction of thrombosis Clin, J. Am Soc. Nephrol 3:369-374 2008.
- Calantha K. et al. Catheter related infections with Sodium Citrate locks compared to heparin locks in hemodialysis patients. Poster 2012 San Diego USA.
- Branson P K, McCoy R A, Phillips A and Clifton G D. Efficacy of a 1.4 percent sodium citrate in maintaining arterial catheter patency in patients in a medical ICU, Chest, March 1993, Vol 103 no. 3.
- Jewish General Hospital, Pharmacy Prescription Form.