

Citrasate[®]

Citrasate dialysate contains a small quantity of citric acid (2.4 mEq/L) the provides mild anticoagulation where needed, in the extracorporeal circuit, not systemically in the patient.

Citrasate is a cost effective alternative to regional citrate anticoagulation and more effective than saline flushes alone.

Citrasate is helpful for hemodialysis patients with:

- HIT (Heparin Induced Thrombocytopenia)
- Heparin Antibodies
- Clotting Problems
- Bleeding Risk Factors—Active bleeding, trauma, surgery

Citrasate works well with SLEDD (Sustained, Low-Efficiency, Daily Dialysis)

Citrasate replaces acetic acid (found in regular dialysate) with citric acid, this provides the added benefit of anticoagulation.

<u>Citrasate is not the same as regional citrate anticoagulation</u> Performing citrate dialysis is no different operationally than

doing regular bicarbonate dialysis. There is no regional infusion of citric acid employed.

You do not need to be concerned about hypocalcaemia



The concentration of citrate in Citrasate is only 2.4 mEq/L; only about <u>one-fifth of the concentration</u> used to achieve anticoagulation via traditional regional citrate infusions. The use of Citrasate does not produce measurable systemic anticoagulation, the anticoagulation effect is confined to the dialyzer and the venous side of the dialysis set up. Citrasate generally produces a clinically acceptable transitory reduction (about 10%) in ionized calcium¹.

lonized calcium begins to normalize to the pre-dialysis level as soon as the Citrasate dialysis session stops¹. The consistent treatment of chronic dialysis patients with Citrasate has demonstrated no chance over extended time periods in either total or ionized serum calcium levels¹.

(1) Ahmad S. Callan R Cole JJ, Blagg CR. Dialysate made from Dry Chemicals using Citric Acid Increases Dialysis Dose. American Journal of Kidney Diseases. 2000; 35: 493-499.

Chief Medical Supplies Ltd.

Bleeding Edge Technology

411 - 19 Street S.E. Calgary, Alberta T2E 6J7

Toll Free: 1-866-620-6034 Phone: 403-207-6034 Fax: 403-207-6074 www.chiefmedical.com Patented Acid Concentrate using Citric Acid, a known anticoagulant

Chief Medical Supplies Bleedina Edae Technoloav

Citrasate[®]

Citrasate provides improved anticoagulation properties that lead to a higher dose of dialysis (Graph Completed Treatments), superior heparin free treatments and better dialyzer reuse (Citrasate prevents clotting of fibers).

Predialysis Creatinine

Citrasate

12 Weeks

10.0

9.5

9.0

8.5

8.0

7.5

Regular Dialysate

12 Weeks



Independent Study Conducted at the University of California, Davis by;

James R Madison DO, MS—Margarita P Ilumin MSN, RN—Andrew I Chin MD

"Citrate-Containing Dialysate is Well Tolerated During Slow Extended Daily Dialysis in the ICU"

- Citrate based dialysate appears safe, since we observed no adverse events during 6 hour SLEDD treatments.
- Citrasate was more effective than saline flushes alone, at completing anticoagulant-free SLEDD treatments in the . ICU.
- We observed significantly less clotting events in those on Citrasate + hourly saline flushes (16%), compared to those . receiving saline flushes every 30 or 60 minutes alone (30%).



- Serum ionized calcium levels remained clinically stable during all SLEDD treatments
- Use of Citrasate required significantly less frequent flushing of dialysis circuits and thereby reducing nursing time.
- The authors affirm there is no conflict of interest, they have no commercial relationship with any company selling citrate-based dialysate.

Citrasate is used exactly as you would use your standard (acetic acid) dialysate.

Chief Medical Supplies Ltd.

Toll Free: 1-866-620-6034 Phone: 403-207-6034 Fax: 403-207-6074 www.chiefmedical.com