

## Renal Physicians Quick guide to prescribing Citrate CVVH.

**Filter** – AV1000 (or MEC2 if larger pores reqd)

**UF rate** – according to patient

**Fluids** –

- \*CiCa Dialysate K4- rate 25mls/kg/hr (or use table 1 for rough estimate. Qd:Qb 20:1 ratio)
  - o Only use K2 if K>6.5
  - o Can increase rate to 35ml/kg/hr if: severe metabolic acidosis (pH,7.0), severe hyperkalaemia (K>6.5), not responding to 25ml/hr, poisoning
- \*Sodium Citrate 4% 1500 mls- as per protocol
- \*Calcium Chloride 50mmol/500mls – as per protocol
  - o Starting rate depends on pre-CVVH ionized calcium check. If <1.1, needs bolus of 10mls of calcium chloride 10% in 50mls Nacl 0.9% over 30 mins before starting and then rate according to table 2

(\*These need to be prescribed in Drug Kardex / Prescription sheet)

**Table 1 – Based on approx. 25ml/kg/hour**

<b>Weight</b>	<b>&lt;60kg</b>	<b>60-69kg</b>	<b>70-79kg</b>	<b>80-89kg</b>	<b>&gt;90kg</b>
Dialysate flow rate (ml/hr)	1400	1600	1800	2000	2200
Blood flow rate (ml/min)*	70	80	90	100	110
Citrate dose (mmol/L)	4.0	4.0	4.0	4.0	4.0
Fluid removal rate (ml/hr)	CLINICIAN DECISION ON INDIVIDUAL PATIENT BASIS				

**Table 2**

<b>Systemic ionised Calcium (mmol/L) (Arterial Line)</b>	<b>&lt;1.01</b>	<b>1.01 – 1.11</b>	<b>1.12 – 1.20</b>	<b>1.21 – 1.45</b>	<b>&gt;1.45</b>
Calcium chloride pre-treatment bolus?	<b>Yes</b>	<b>Yes</b>	No	No	No
Starting prescription of calcium chloride (mmol/L <u>of filtrate</u> )	2.2	2.0	1.9	1.5	1.4

### **Avoiding citrate ?? (Liver failure / Accumulation)**

- 1) change Fluid to Accusol 4 / MultiBic 4
- 2) increase blood flow to >250mls/min
- 3) Increase dialysate flow to 2600 mls/hr (max 4.8L)