BEaRSS Study	PATIENT STICKER
Patient Number:	
Study A or B:	
NAMBOUR INTENSIVE CARE UNIT	

BEaRSS CRRT (Haemofilter) ORDER FORM

Step 1: **Order & program <u>CVVH with Predilution only</u>**

Step 2: **Guide to Predilution fluid POTASSIUM concentration:**
NB: Baxter Citrate research solution is supplied with <u>1mm/L K^+</u> (5 mmol / 5L). Add KCL as needed

Serum Potassium	**<u>Total KCL</u>** in Bag	Final concentration of K^+
>5.5	5 mmol / 5L Bag	1mmol / L (DO NOT add KCL)
>4.5 and <5.5	15 mmol / 5L Bag	3mmol / L
>3.5 and <4.5	20 mmol / 5L Bag	4mmol / L
>2.5 and <3.5	25 mmol / 5L Bag	5mmol / L

Step 3: **Order *BEaRSS* CVVH prescription – ensure citrate is not contraindicated by:**
Fulminant liver failure with lactate ≥ 4mmol/L
Child's C liver disease

Date					
Time of order					
Medical Officer Signature					
MODE	CVVH	CVVH	CVVH	CVVH	CVVH
Total K^+/Bag (see step 2)					
Predilution Rate (ml/hr) ***BEaRSS***	2000	2000	2000	2000	2000
Target Blood Flow Rate (ml/min)	200	200	200	200	200
Fluid loss rate (mls/hr)					
Nursing Staff Check Initials (AM/PM/N)					

Step 4: **Adjust Calcium / Magnesium infusion rate in mls/hr – given via patient's CVC / PICC <u>only</u>**
Calcium Chloride 4.9% + Magnesium Chloride 3.4% in 500 mls **(hypertonic)**
(500mls contains 24.5 gm calcium chloride / 166mmol Ca^{++} (0.333mmol/ml))

1. Start Calcium / Magnesium infusion at 15ml/hr, **<u>10 minutes before</u>** starting filter
2. Check ionised calcium on ABG from patient **<u>arterial line</u>** at 30 minutes and 60 minutes after CVVH commencement (only adjust infusion rate at 30 minutes if within red zone).
3. After 60 minute check, adjust Calcium / Magnesium infusion as per table below:

Target ionised Calcium on ABG	< 0.90 mmol/L	0.90 -1.00 mmol/L	1.01 -1.20 mmol/L	1.21 -1.40 mmol/L	> 1.40 mmol/L
Alteration needed to Calcium / Magnesium infusion rate in mls/hr	**Urgent Notify medical officer immediately**	Increase infusion by 1.5mls/hr	No change	Decrease infusion by 1.5mls/hr	**Stop infusion Notify medical officer**
ABG timing	Recheck within 1 hour	Recheck within 1 hour	Recheck at 6 hours	Recheck within 1 hour	Recheck within 1 hour

4. If ionised calcium is <0.9 mmol/L or patient is symptomatic medical officer must review – consider order for bolus IV calcium chloride 10mls
5. Check coagulation profile, magnesium level and total calcium level at 0500 & 1700 daily

NB: Never infuse calcium/magnesium solution into the filter circuit.
NB: Patient must be monitored for signs & symptoms of citrate toxicity – see page 2

Call Consultant on call if you have any questions or are considering variations of the above.
Version 1.0 25th July 2012

BEaRSS Study	PATIENT STICKER
NAMBOUR INTENSIVE CARE UNIT	

NB: <u>Potential complications / signs of citrate accumulation</u>

<u>All suspected toxicity must be reported to ICU Consultant</u>

<u>Patients with significant liver impairment are at risk</u>.

Increasing calcium requirements
Increasing magnesium requirements

Arrhythmias
Coagulopathy

Ionised calcium on ABG below 0.9mmol/L
Increasing total to ionised calcium ratio of >2.1:1

Fitting
Weakness

Anion Gap increasing by 5mmol/l since last ABG
Worsening metabolic acidosis or metabolic alkalosis

Call Consultant on call if you have any questions or are considering variations of the above.