Critical Care Clinical Guideline

Renal Replacement Therapy in Critical Care

Aim: To provide guidance on the choice of modality and delivery of renal replacement therapy (RRT) on the ICU.
Scope: All adult patients on the Intensive Care Unit who need renal replacement therapy

Version: 2 | Ratified by: Critical Care Governance Group | Author: Dr S Blakeley
Date: 06 Sep 13 | Revision due: 06 Sep 15 | Produced by: Critical Care Governance Group
An equality impact assessment has been applied to this policy (Appendix D). This guideline is subject to professional judgment and accountability.

Choice of mode

• First choice for most ICU admissions with multi organ failure • Septic shock/severe sepsis	• Recovering multi organ failure but ongoing need for RRT • AKI with high urea *(initial setting)*	• Failure of CVVH • Limited period of time for therapy	• Fluid removal only
CVVH 35mls/kg/hour	**CVVH 25mls/kg/hour**	**CVVHDF 35mls/kg/hour**	**SCUF**

Delivery of therapy

Prescription

Effluent production: use mls/kg/hour effluent as above
Replacement fluid: CVVH: effluent rate = replacement fluid rate.
CVVHDF: effluent rate = 50% dialysate / 50% replacement.
Pre/post dilution ratio: initially use 30% pre- / 70% post-dilution.
Blood flow rates: set according to Table A below
Anticoagulation: according to guideline below
Patient fluid removal rate: titrate to volume status

Check biochemistry after 6-8 hours on therapy; thereafter check daily (including phosphate) or as clinical need dictates.

If starting Urea >30 mmoll^{-1}, do not let Urea fall by more than 1/3 during first 24 hours (NB still beware if Urea 25-30 mmoll^{-1})

Re-Assess Daily

- Need for RRT/mode of RRT
- Fluid balance
- Electrolytes including phosphate & magnesium (usually need daily replacement)
- Drug dose adjustment based on renal handbook & pharmacist
- DVT prophylaxis
- Vascath for signs of infection
- Remember RRT may mask a fever

Termination of therapy

- Consider break/termination of therapy if patient has good solute clearance, normal pH, normal potassium and is euvolaemic/persistently passing good urine volumes.
- Filters should be electively taken down where possible rather allowed to clot (to minimise blood loss)
- All filters should be electively taken down after 72 hours and a fresh circuit built.
- If therapy is terminated for **3 hours** or more and the vascath remains in situ it should be locked with **Taurolock.**
- The vascath should be removed as soon as it is no longer needed for ongoing therapy.

Anticoagulation for Renal Replacement Therapy

Low risk of bleeding

Normal clotting
INR ≤ 1.2
APTR ≤ 1.2
Platelets ≥ 100

Moderate risk of bleeding *

INR 1.3-1.4
APTR 1.3-1.4
Platelets 60-99
< 48 hours post surgery

High risk of bleeding *

INR ≥ 1.5
APTR ≥ 1.5
Platelets ≤ 60
< 24 hours post surgery
Intracerebral / GI bleed
Therapeutic anticoagulation

Prime circuit with heparinised saline (1000mls 0.9% sodium chloride with 5000 units heparin sodium) #

Heparin Anticoagulation

20mls heparin sodium 1000 IU/ml in 20ml syringe

No Anticoagulation

20 ml 0.9% saline in 20 ml syringe

Standard Heparin 10 IU/kg/hr

Check APTR 4 hours after starting heparin

Low Dose Heparin 5 IU/kg/hr

Check APTR 4 hours after starting heparin

No Heparin

APTR	Bleeding$	Action		Monitoring
		Standard Heparin	**Low Dose Heparin**	
1.4 or less	None	Continue 10 IU/kg/hr	Continue 5 IU/kg/hr	Check APTR 12 hourly unless otherwise indicated
1.5 or more	None	Reduce to 5 IU/kg/hr	Stop heparin	Recheck APTR 4 hrs after heparin dose change
ANY	Yes	Reduce to 5 IU/kg/hr or run heparin free depending on significance of bleeding	Stop heparin	Check APTR immediately on identifying new bleeding Recheck APTR 4 hrs after reducing or stopping heparin

* If individual patient felt to be at risk of bleeding for other reasons use low dose or no heparin
# Prime with saline ONLY if suspicion/diagnosis of heparin induced thrombocytopenia (HIT)
$ Bleeding should be assessed to determine clinical significance

If recurrent filter clotting do not increase heparin – Refer to guidance below

Stop Heparin Anticoagulation if:

- APTR is ≥ 1.5 despite **low dose** heparin (**can be continued at the discretion of the consultant in exceptional circumstances**)
- Significant bleeding is seen
- Patient is due for theatre/invasive procedure
- INR rises to ≥ 1.5 or platelets fall < 60
- Concern regarding heparin induced thrombocytopenia (note: circuit will need to be rebuilt with NO heparin in the priming solution)

If the Filter Clots Repeatedly:

- Ensure good vascular access: blood should flow freely from both lumens of the Vascath. If not, reposition or re-site line.
- Ensure patient has adequate intravascular volume.
- Ensure appropriate blood speeds are achieved right from the start of therapy.
- Change pre/post dilution split to 50:50 to increase haemodilution within the filter.

A 70:30 pre/post dilution split can be used at the discretion of the consultant, remembering there will be a significant reduction in solute clearance unless there is a compensatory increase in effluent production.

- Filters do not clot due to lack of heparin. In septic patients there is often fouling of the filter membrane due to inflammatory proteins leading to a shortened filter survival time.

Table A: Exchange volume, pre/post dilution split and minimum blood pump speed for RRT

CVVH	CVVHDF
Effluent production rate (replacement fluid rate) = working weight (kg) x {20 or 35* mls/hour} Round up to nearest value *See text	Calculate effluent production rate as before 50% = replacement fluid rate, 50% = dialysate fluid rate

Total exchange volume (mls/hour)	Pre dilution (mls)	Post dilution (mls)	Minimum blood pump speed (mls/min)
1400	420	980	200
1600	480	1120	200
1800	540	1260	200
2000	600	1400	250
2200	660	1540	250
2400	720	1680	250
2600	780	1820	250
2800	840	1960	250
3000	900	2100	300
3200	960	2240	300
3400	1020	2380	300
3600	1080	2520	300
3800	1140	2660	300
4000	1200	2800	300

Note: If the minimum blood flow cannot be achieved, reasons should be sought such as access problems or severe haemodynamic instability. Remember good blood flow leads to better filter function and solute clearance.

TABLE OF CONTENTS

1. INTRODUCTION

8% of admissions to the Department of Critical Care require renal replacement therapy (RRT). Our haemofiltration machines offer the full range of continuous renal replacement therapies: continuous veno-venous haemofiltration (CVVH), continuous veno-venous haemodialysis (CVVHD), continuous veno-venous haemodiafiltration (CVVHDF) as well as slow continuous ultrafiltration (SCUF). Therapeutic plasma exchange (TPE) is performed using the same machine but will not be discussed in this guideline.

Evidence shows that the method of renal replacement therapy should be tailored to the individual, and in particular it should be 'dosed' according to the patient's body weight and to the clinical situation. Studies have shown there is no difference in outcome between 20-25mls/kg/hour compared with 35mls/kg/hour of effluent production. This guideline however recommends that the higher dose of 35mls/kg/hour is still used in certain clinical situations, most notably in septic patients who have multi organ failure when they first present. This is to compensate for periods of intentional or unintentional down time that may lead to delivered dose falling short of prescribed dose. When the patient is acutely unwell it is very important to ensure that the patient receives effective therapy.

Key points in selecting the mode of RRT include:

a. Blood flow rates should be optimised to reduce filter clotting and improve efficiency.

b. The rate of effluent production should be 'dosed' according to patient body weight at either 25mls/kg/hour or 35mls/kg/hour of effluent production depending on the clinical scenario. The patient weight is taken to be the 'working weight' of the patient, i.e. the weight used for drug/infusion calculations.

c. Replacement fluid should be infused as a pre and post dilution split to maximise both filter life (pre dilution) and solute clearance (post dilution).

d. Septic patients should have a predominantly convective mode of therapy (CVVH). Recent studies have not shown any survival benefit with high volume haemofiltration (effluent flow rates in excess of 35mls/kg/hour) in the management of severe septic shock. The use of flow rates above 35mls/kg/hour in these patients is at the discretion of the duty ICU consultant.

e. Patients with high solutes should <u>not</u> have a rapid reduction in their solute levels in the first 24-48 hours.

f. If fluid removal only is the goal of therapy use slow continuous ultrafiltration (SCUF).

g. In patients with profound hyper/hyponatraemia then the delivery of therapy should be modified to minimize rapid correction of sodium. Further guidance in this situation can be found on the departmental intranet.

The very nature of continuous renal replacement therapy (CRRT) means that blood is continually in contact with the tubing of the circuit and the membrane of the filter. This can lead to activation of the coagulation cascade resulting in low levels of clotting within the filter reducing efficiency and ultimately leading to complete clotting and loss of the circuit. Recurrent clotting of the circuit leads to inadequate treatment and loss of circuit blood. Continual rebuilding of the circuit is a drain on resources, both nursing staff and financial.

Some form of anticoagulation is generally used to maintain filter patency. The commonest form of anticoagulation on Intensive Care Units is unfractionated heparin, but other alternatives include regional citrate anticoagulation, low molecular weight heparin and prostacyclin.

Balanced against this is the risk to the patient of bleeding and adverse effects of the anticoagulation itself. Many critically ill patients may already have a degree of auto-anticoagulation, may be at high risk of bleeding (e.g. post op, recent gastrointestinal bleed) or have a condition where bleeding may be catastrophic (e.g. post intracerebral bleed). In these patients it may be safer to attempt to run therapy without any form of anticoagulation, remembering it is better to lose the filter than to lose the patient.

On our Intensive Care Unit the two most commonly used methods are heparin anticoagulation and 'heparin free anticoagulation' although this guideline also outlines the use of prostacyclin.

The first stage is to determine whether the patient is suitable for heparin or not. This is based on the presence and degree of existing auto-anticoagulation, and the risk of bleeding due to underlying medical or surgical conditions. If heparin is to be used, the goal is for anticoagulation of the filter, not for full systemic heparinisation. There is no relationship between APTR and filter survival time and the aim of heparin anticoagulation on CRRT is to have a well running filter, with a normal or near normal APTR and no evidence of bleeding.

This guideline is in accordance with guidelines published by the Intensive Care Society (2008) and should be read in conjunction with the Critical Care Standard Operating Procedure on Central Venous Catheters.

2. PURPOSE

To provide guidance on the mode and delivery of renal replacement therapy (including anticoagulation) for critically ill patients on the Intensive Care Unit.

3. SCOPE

This guideline is for use on the Intensive Care Unit using the Gambro Prismaflex haemofiltration machine. This guideline is subject to professional judgement and accountability. The ability to comply with this guideline may be affected by infection outbreak, flu pandemic or any major incident due to resource constraints.

4. DEFINITIONS

AKI	Acute kidney injury.
APTR	Activated partial thromboplastin time (normal range 0.8-1.2)
(C)RRT	(Continuous) renal replacement therapy
CVVH	Continuous veno-venous haemofiltration
CVVHDF	Continuous veno-venous haemodiafiltration
SCUF	Slow continuous ultrafiltration

5. DUTIES AND RESPONSIBILITIES

The decision to implement this guideline is at the discretion of the on-call critical care consultant. Implementation of this guideline is the joint responsibility of appropriate critical care medical/ nursing staff. This guideline is subject to professional judgment and accountability.

6. PROCESS (Recommendations & Justification)

A: Indications for starting renal replacement therapy

Recommendation (Action)	Justification (Rationale)
Classical indications for RRT: • Rapidly rising urea and creatinine [1] • Hyperkalaemia unresponsive to medical therapy [2] • Severe metabolic acidosis [1] • Fluid over load • Oliguria or anuria [3] Other uses of extracorporeal therapy: • Drug removal [4] • Adjunct in the management of severe sepsis [5]	1. There are no set levels of urea/ creatinine/ potassium/ pH at which to start RRT: the overall clinical state of the patient should be considered. Therapy should be started sooner rather than later, as a guide, before the urea rises above **20-25 mmol/l in critically ill patients** 2. RRT removes potassium rapidly, however as it takes time to set up the circuit, hyperkalaemia should always be treated by medical means first. There is no set level of potassium at which to start RRT. The rate of change and overall clinical state of the patient should be taken into consideration. 3. There is no set level of minimum urine output at which RRT should be started. The overall clinical state of the patient should be considered. 4. Specialist advice should be sought regarding use of RRT in the removal of ingested toxins. 5. Convective therapy can remove septic mediators and therefore has the potential to be used as an adjunct in the treatment of severe sepsis. Currently CRRT should not be used in patients with severe sepsis who do not have AKI without direction from the consultant.

B: Basic set up for renal replacement therapy: CVVH ('Haemofiltration')

Recommendation (Action)	Justification (Rationale)
• Prime the Prismaflex in CVVH mode [1] • Calculate total exchange volume of **35mls/kg/hour**[2] or **25mls/kg/hour**[3] based on the working weight of the patient (i.e. weight used for drug calculations) • Calculate blood flow rate from Table A according to replacement volume [4] • Calculate the pre and post dilution split from Table A [5] • Set fluid removal rate according to clinical state of patient • Set anticoagulation as per DCCQ clinical guideline	1. Convective therapies have been shown to be beneficial as an *adjunctive* treatment in severe sepsis. CVVH will clear solutes and correct acidosis and for most patients is adequate therapy – a few will need CVVHDF (see variations) but for most CVVH is the default starting mode. 2. 35mls/kg/hour is appropriate for patients with severe sepsis and/or multi organ failure, and also takes into consideration periods of 'filter down time'. 3. 25mls/kg/hour is appropriate for patients who need ongoing therapy, who are not acutely septic and who have good solute clearance already. 4. An appropriate blood flow rate helps to improve solute clearance and prevent sluggish blood flow within the haemofilter, helping to prevent premature clotting. 5. Pre dilution helps to reduce the need for anticoagulation but post dilution improves solute removal. Pre and post dilution are therefore used simultaneously to maximise the benefits of both.

C: Variations

i. Failure of CVVH to clear acidosis or solute load: CVVHDF ('diafiltration')
In some profoundly acidotic patients or patients who are usually on long term renal replacement therapy[1], CVVH may not clear the acidosis in the time frame required, therefore a change to haemodiafiltration may be required

Recommendation (Action)	Justification (Rationale)
• Prime the Prismaflex in CVVHDF mode [1] • Calculate total exchange volume of **35mls/kg/hour** based on the working weight of the patient (i.e. weight used for drug calculations) • Provide 50% of exchange volume as replacement fluid and 50% as dialysate (50:50 split) • Calculate blood flow rate from Table A according to replacement volume • Calculate pre/ post dilution split from Table A • Set fluid removal rate according to clinical state of patient • Set anticoagulation as per DCCQ clinical guideline	1. Patients with end stage renal failure, who have a high serum urea but who are not yet fully established on haemodialysis should be treated as per variation iii

ii. Patient with fluid overload only

Recommendation (Action)	Justification (Rationale)
• Prime in SCUF mode [1] • Set blood flow rate at **180ml/min**[2] • Set fluid removal rate according to clinical state of patient • Set anticoagulation as per DCCQ clinical guideline	1. If the machine is already primed in CVVH or CVVHDF then turn the replacement/dialysate rate down to 0 and this delivers SCUF 2. Blood flow rates of 150-180mls/min are acceptable

iii. Patients presenting with a high urea *E.g. urea > 30 mmol/l*

Recommendation (Action)	Justification (Rationale)
• Prime in the Prismaflex in CVVH mode • Calculate total exchange volume of **25mls/kg/hour** based on the working weight of the patient (weight used for drug calculations) • Calculate blood flow rate from Table A according to replacement volume • Calculate pre and post dilution split from Table A • Set fluid removal rate according to clinical state • Set anticoagulation as per DCCQ guideline. • Check urea after 12 hours of being on the filter, adjust flow rates accordingly aiming to drop the urea no more than $^1/_3$ in the first 24 hour period[1]	1. A rapid reduction of serum urea leads to rapid changes in plasma osmolality and the risk of dysequlibrium syndrome – **urea should not be allowed to fall by more than $^1/_3$ in the first 24 hours** 2. Note, as mentioned above, this also includes dialysis naive end stage renal failure patients

D: Termination of therapy

Recommendation (Action)	Justification (Rationale)
• After 72 hours the circuit should be electively taken down and a fresh circuit built if the patient needs to continue on therapy[1] • *Consider* termination of therapy if the patient is persistently passing over 0.3-0.5 mls/kg/hour of urine (or more than 500 mls of urine/day)[2] • Urea and creatinine are a poor guide to termination of therapy once the patient is on CRRT – **they indicate degree of solute removal by the filter and are not a reflection of intrinsic renal function** [2] • Filter breaks can be considered if the patient has good solute clearance, a normal pH, normal potassium and is euvolaemic • If therapy is terminated and the vascath remains in situ it should be locked with Taurolock as per protocol [3]	1. To avoid unnecessary blood loss for the patient, the decision to terminate therapy should be an active one rather than waiting for the filter to clot 2. There is no test or indicator that will determine whether a patient will be able to manage without RRT, the clinical situation as a whole should be taken into consideration 3. Taurolock is used to prevent the development of thrombosis and infection within the vascath when it is not in use. Any vascath that is not to be used for 3 hours or more should be locked with Taurolock

E: Heparin Regimes

Recommendation (Action)	Justification (Rationale)
The Prismaflex circuit should be primed with heparinised sodium chloride 0.9% (5000units heparin sodium in 1L sodium chloride 0.9%)	This leads to some heparin 'sticking' to the haemofilter and tubing so helping to prolong the circuit life
Fill the a 20ml syringe with 20mls of heparin sodium 1000unit/ml	
Start the heparin infusion at: • 10 IU/kg/hour (standard heparin) • 5 IU/kg/hour (low dose heparin)	Based on working weight of the patient
Check the APTR after 4 hours Target is APTR < 1.4 with NO bleeding	To ensure over-anticoagulation has not occurred

E: Heparin-Free Regimes

Recommendation (Action)	Justification (Rationale)
The Prismaflex circuit should be primed with heparinised sodium chloride 0.9% (5000units heparin sodium in 1L sodium chloride 0.9%) Note: Do not prime filter with heparinised saline if there is concern regarding heparin induced thrombocytopenia.	This leads to some heparin 'sticking' to the haemofilter and tubing so helping to prolong the circuit life
Fill a 20ml syringe with 20mls of 0.9% sodium chloride	
Set the anticoagulation rate to 0mls/hour	No anticoagulation will be delivered but the Prismaflex still requires that the syringe be filled and loaded correctly

E: Epoprostanol Anticoagulation

Recommendation (Action)	Justification (Rationale)
The Prismaflex circuit should be primed with heparinised sodium chloride 0.9% (5000units heparin sodium in 1L sodium chloride 0.9%) NOTE: Do not prime filter with heparinised saline if there is concern regarding heparin induced thrombocytopenia.	This leads to some heparin 'sticking' to the haemofilter and tubing so helping to prolong the circuit life
Fill a 20 ml syringe with 20mls epoprostenol [Flolan®]	Please refer to electronic prescription and product insert with regards to dilution of drug
Run at 2.5nanogram/kg/minute	A low dose is used as epoprostenol can cause marked reduction in blood pressure and cardiac output

7. TRAINING REQUIREMENTS

This guideline should be read in conjunction with the *ICU Renal Handbook*. All Critical Care staff will be informed of the content of this guideline and how to access it via the Critical Care Guidelines and SOPs intranet page. All staff involved in prescribing and delivering RRT will be given appropriate training, managed by the Critical Care Education Team and Renal Team. A laminated summary of this guideline will be attached to all haemofiltration machines.

8. MONITORING COMPLIANCE WITH, AND THE EFFECTIVENESS OF, PROCEDURAL DOCUMENTS

This guideline will be reviewed initially at 6 months and thereafter 2 yearly by the Critical Care Governance Group. Measurement of compliance will be achieved by unit-based audit. Results reviewed will be fed back to members of the senior medical /nursing team and the Critical Care Governance Group.

9. REFERENCES AND ASSOCIATED DOCUMENTATION

Palevsky PM et al. Intensity of renal support in critically ill patients with acute kidney injury. N Engl J Med 2008; 359:7-20 [ATN study]

Bellomo R et al. Intensity of continuous renal replacement therapy in critically ill patients. N Engl J Med 2009; 361:1627-1638 [RENAL study]

Jun M et al. Intensities of renal replacement therapy in acute kidney injury: A systematic review and meta-analysis. Clin J Am Soc Nephrol 2010; 5: 956-963 [Meta-analysis 1]

Van Wert R et al. High-dose renal replacement therapy for acute kidney injury: Systematic review and meta-analysis. Crit Care Med 2010; 38 (5): 1360-9 [Meta-analysis 2]

Uchino S, Fealy N, Baldwin I et al. Continuous venovenous haemofiltration without anticoagulation. ASAIO J 2004; 50:76-80

Oudemans-van Straaten HM, Wester JPJ, de Pont ACJM et al. Anticoagulation strategies in continuous renal replacement therapy: can the choice be evidence based? Intensive Care Med 2006; 32:188-202

Baldwin I, Bellomo R, Koch W. Blood flow reductions during continuous renal replacement therapy and circuit life. Intensive Care Med 2004; 30: 2074-2079

Oudemans-van Straaten HM, Kellum JA, Bellomo R. Clinical review: Anticoagulation for continuous renal replacement therapy – heparin or citrate

Intensive Care Society Standards for Renal Replacement therapy
http://www.ics.ac.uk/icmprof/standards.asp?menuid=7

Renal association guidelines for management of AKI
http://www.renal.org/Clinical/GuidelinesSection/AcuteKidneyInjury.aspx#downloads

Please refer to Renal Handbook available via DCCQ website for a comprehensive list of references and further reading.

Appendix A

Checklist for the Review and Ratification of Procedural Documents and Consultation and Proposed Implementation Plan

To be completed by the author of the document and attached when the document is submitted for ratification: a blank template can be found on the Trust Intranet. Home page -> Policies -> Templates

CHECKLIST FOR REVIEW AND RATIFICATION			
TITLE OF DOCUMENT BEING REVIEWED:		YES/NO N/A	COMMENTS
1	**Title**		
	Is the title clear and unambiguous?	Yes	
	Will it enable easy searching/access/retrieval??	Yes	
	Is it clear whether the document is a policy, guideline, procedure, protocol or ICP?	Yes	
2	**Introduction**		
	Are reasons for the development of the document clearly stated?	Yes	
3	**Content**		
	Is there a standard front cover?	Yes	
	Is the document in the correct format?	Yes	
	Is the purpose of the document clear?	Yes	
	Is the scope clearly stated?	Yes	
	Does the scope include the paragraph relating to ability to comply, in the event of a infection outbreak, flu pandemic or any major incident?	Yes	
	Are the definitions clearly explained?	Yes	
	Are the roles and responsibilities clearly explained?	Yes	
	Does it fulfill the requirements of the relevant Risk Management Standard? (see attached compliance statement)	Yes	
	Is it written in clear, unambiguous language?	Yes	
4	**Evidence Base**		
	Is the type of evidence to support the document explicitly identified?	Yes	
	Are key references cited?	Yes	
	Are the references cited in full?	Yes	
	Are associated documents referenced?	Yes	
5	**Approval Route**		
	Does the document identify which committee/group will approve it?	Yes	Critical Care Governance Group
6	**Process to Monitor Compliance and Effectiveness**		
	Are there measurable standards or KPIs to support the monitoring of compliance with the effectiveness of the document?	Yes	
7	**Review Date**		
	Is the review date identified?	Yes	
6	**Dissemination and Implementation**		
	Is a completed proposed implementation plan attached?	Yes	
7	**Equality and Diversity**		
	Is a completed Equality Impact Assessment attached?	Yes	

Appendix A
continued

CONSULTATION AND PROPOSED IMPLEMENTATION PLAN	
Date to ratification committee	
Groups /committees / individuals involved in the development and consultation process	Critical Care Renal Team Critical Care Governance Group Multidisciplinary staff working in DCCQ
Is training required to support implementation?	Yes
If yes, outline plan to deliver training	1. Distribution of revised guideline via email, and uploading to intranet site. 2. Coverage at identified Friday multidisciplinary teaching session. 3. Targeted training via Renal Team and Education Team where appropriate
Outline any additional activities to support implementation	As above

Individual Approval

If, as the author, you are happy that the document complies with Trust policy, please sign below and send the document, with this paper, the Equality Impact Assessment and NHSLA checklist (if required) to the chair of the committee/group where it will be ratified. To aid distribution all documentation should be sent electronically wherever possible.

Name	**Dr S Blakeley**	**Date**	06 Sep 13
Signature	*signed electronically*		

Committee / Group Approval

If the committee/group is happy to ratify this document, would the chair please sign below and send the policy together with this document, the Equality Impact Assessment, and NHSLA checklist (if required) and the relevant section of the minutes to the Trust Policies Officer. To aid distribution all documentation should be sent electronically wherever possible.

Name	**Dr N Tarmey, Critical Care Governance Group**	**Date**	06 Sep 13
Signature	*signed electronically*		

If answers to any of the above questions is ‘no’, then please do not send it for ratification.

Appendix B

Equality Impact Assessment

To be completed by the author of the document and attached when the document is submitted for ratification: a blank template can be found on the Trust Intranet. Home page -> Policies -> Templates

Title of document for assessment	Renal Replacement Therapy in Critical Care
Date of assessment	18 June 2013
Job title of person responsible for assessment	Dr S Blakeley
Division/Service	DCCQ / CHAT CSC

	Yes/No	Comments
Does the document affect one group less or more favorably than another on the basis of:		
Race	No	
Gender (including transgender)	No	
Religion or belief	No	
Sexual orientation, including lesbian, gay and bisexual people	No	
Age (for HR policies only)	No	
Disability – learning disabilities, physical disabilities, sensory impairment and mental health problems	No	
Does this document affect an individual's human rights?	No	
If you have identified potential discrimination, are the exceptions valid, legal and/or justified?		

If the answers to any of the above questions is 'yes' you will need to complete a full Equality Impact Assessment (available from the Equality and Diversity website) or amend the policy such that only an disadvantage than can be justified is included. If you require any general advice please contact staff in the Equality and Diversity Department on 02392 288511