

**Table 2. Study characteristics for non-pharmacological interventions**

Study	Population	Comparison	Number of patients (intervention / control)	Severity (intervention / control)	Anti-coagulation
<b>Alamartine, 1994</b>	not reported; France	CVVHDF with convection that was obtained by a 2 L/hour pre-dilutional infusion vs. CVVHD without convection	7/6	APACHE 2 score: 24 ± 6 / 20 ± 4	Heparin, different between groups
<b>Baldwin, 2002</b>	critically ill patients with AKI requiring CKRT; Australia	1. Flat plate filter vs. hollow fibre filter of the same membrane type; 2. Administration of heparin equally divided into the venous air-chamber (50%) and into the standard prefilter port (50%) vs. complete (100%) infusion into the standard prefilter port alone; 3. filter with a larger membrane surface area (Filtral 12, Hospal, Lyon, France; surface area: 1.3 m <sup>2</sup> ) vs. filter with a smaller membrane surface area (Filtral 8, Hospal, Lyon, France; surface area: 0.75 m <sup>2</sup> )	38 (cross-over RCT)	not reported	Heparin, predefined protocol
<b>Broman, 2019</b>	adult ICU patients who had septic shock, with a blood culture positive for a gramnegative bacteria or suspected to be caused by a gram-negative agent; endotoxin level > 0.03 EU/mL; associated KDIGO stage 3 AKI; Sweden	CVVHDF with an oXiris™ (AN69ST) filter vs. CVVHDF with a standard filter	16 (cross-over RCT)	SAPS 3: 73.8 ± 11.5	Not reported
<b>Daud 2006</b>	critically ill on ventilatory support in ICU or coronary care unit with AKI; Malaysia	CVVH with ultrafiltration of 2 L/hour vs. CVVHD with the dialysate outflow rate of 1.7 L/hour	11/9	SAPS 2: 65.1 ± 15.5 / 66.5 ± 11	Not reported
<b>Davies, 2008</b>	Inclusion criteria: ≥18 years of age admitted to the ICU requiring CKRT; Australia	CVVH with ultrafiltrate dose of 35 mL/kg/hour vs. CVVHDF with a fixed pre-dilution volume of 600 mL/hour replacement fluid with a dialysate dose of 1 L/hour	45 (cross-over RCT)	APACHE 2: 25.53 ± 6.2	Heparin, predefined protocol
<b>De Pont, 2006</b>	critically-ill adults with an indication for CKRT; the Netherlands	pre-dilution with the total flow through the haemofilter constant at 200 mL/min vs. post-dilution with the total flow through the haemofilter constant at 200 mL/min	8 (cross-over RCT)	APACHE 2: 23 ± 8	Heparin, equally administered to both arms
<b>Dungen, 2001</b>	adults in ICU with AKI due to septic shock; Germany	CVVH with handmade filter with more and shorter hollow fibres (number of hollow fibres, 7168; and length 21 cm) vs. CVVH with standard filter (number of hollow fibres, 4608; and length 30 cm)	6 (cross-over RCT)	APACHE 3: 57 (range 43 to 72)	No difference in anticoagulants
<b>Fealy, 2007</b>	critically ill in ICU and fulfilled 3 criteria: 1) ≥18 years; 2) AKI requiring CKRT; and 3) vascular access was via the femoral vein for standardization; Australia	BFR: 250 mL/min vs. BFR: 150 mL/min	49/51	APACHE 3: 87.21 ± 26.28 / 85.65 ± 23.17	predefined ICU protocol

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<b>Kellum 1998</b>	both severe SIRS and AKI who needed KRT; USA	CVVH with haemofiltration rate of 2 L/hour using a 0.6-m AN69 haemofilter vs. CVVHD with the dialysate outflow rate of 2 L/hour using a 0.6-m AN69 haemofilter	13 (cross-over RCT)	Not reported	Not reported
<b>Meier, 2011</b>	critically ill; $\geq 18$ years; AKI defined according to the RIFLE classification; Switzerland	Film-coated domain structured (surface-modified) double lumen catheter (GamCath Dolphin® Protect 1320, Gambro, Hechingen, Germany) vs. Standard double lumen catheter (GamCath® GDK-1320, Gambro, Hechingen, Germany)	118/118	APACHE 2: $29 \pm 8$ / $28 \pm 5$	Heparin, different between groups
<b>OMAKI 2012</b>	critically ill adults ( $\geq 16$ years) with AKI; Canada	CVVH vs. CVVHD	38/35	not reported	citrate or unfractionated heparin
<b>Plata-Menchaca 2017</b>	critically ill adults with sepsis and AKI who met CKRT initiation criteria; Spain	CVVH + adsorption membrane (AN69-ST-150) vs. CVVHD + adsorption membrane (AN69-ST-150)	49/57	APACHE 2: $25 \pm 9$	not reported
<b>RADICAL, 2012</b>	critically ill adults requiring CKRT; Australia	Longer catheter: 20 cm if inserted in a right great thoracic vein and 24 cm if inserted in a left great thoracic vein vs. Shorter catheter: 15 cm if inserted through a right great thoracic vein and 20 cm if inserted through a left great thoracic vein	50/50	APACHE 2: $25 \pm 7$ / $26 \pm 8$	unfractionated heparin
<b>Ramesh Prasad, 2000</b>	receiving CVVHD in an ICU; USA	BFR was set at 200 to 250 mL/min and 100 mL fluid boluses were administered at 30-minute intervals vs. BFR was set at 125 mL/min and a prefilter flush with 0.9% saline or other electrolyte solution infused as a 100 mL bolus once/hour	16/18	not reported	Use of anticoagulants was left to the discretion of the attending physician
<b>Schetz, 2012</b>	adults requiring CKRT and weighing between 30 and 120 kg; Belgium	AN69ST surface-treated membrane (ST100) vs. AN69 original membrane (M100)	19/20	APACHE 2: $26 \pm 5$	without systemic anticoagulant
<b>Van der Voort, 2005</b>	mechanically ventilated, in ICU with AKI who had not been treated with CVVH or HD before; the Netherlands	1. one filter run in pre-dilution CVVH vs. one filter run with systemic nadroparin (475 IU/hour by continuous infusion prefilter); 2. one filter run in post-dilution CVVH vs. one filter run with heparin (prefilter) and protamine (post-filter)	20/16; 20/15	APACHE 2: median 27, IQR 22 to 37; 31, 23 to 37	Standardised protocol
<b>Wynkel, 2004</b>	critically ill patients with SAPS II scores $< 85$ and who were suffering from AKI; France	CVVHD vs. Pre-dilution CVVH or Post-dilution CVVH	18 (cross-over RCT)	SAPS 2: $59.5 \pm 14.3$	predefined anti-coagulation
<b>Yin, 2015</b>	ICU aged $\geq 16$ years; meet CKRT treatment indications and cannot respond anticoagulation with whole body; body weight 30 to 120 kg; China	Each study subject was treated with 4 filters: 2 AN69 ST membrane filters (A) and 2 conventional AN69 membrane filters (B); A-B-A-B sequential treatment vs. treatment in the order of B-A-B-A	17 (cross-over RCT)	APACHE 2): $18.53 \pm 2.67$	without systemic anticoagulant