

# The effect of Membrane Permeability on End-Stage Renal Disease (ESRD) patient Outcome

**Submission date**  
01/08/2007

**Recruitment status**  
No longer recruiting

☐ Prospectively registered

☒ Protocol

**Registration date**  
23/08/2007

**Overall study status**  
Completed

☐ Statistical analysis plan

☒ Results

**Last Edited**  
28/08/2013

**Condition category**  
Urological and Genital Diseases

☐ Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**Protocol serial number**  
N/A

## Study information

**Scientific Title**

**Acronym**

MPO

### **Study objectives**

To test whether the survival of ESRD patients treated with bicarbonate hemodialysis using high-flux membranes is better than that of those treated with bicarbonate hemodialysis using low-flux membranes.

This trial is also registered with the Cochrane Renal Group Registry (registration number: CRG 090500013).

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Local and national ethics approvals were obtained for all study sites according to the national legislations.

### **Study design**

Open, prospective, centrally randomised, international, multi-centre study.

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

### **Health condition(s) or problem(s) studied**

Chronic kidney disease stage 5

### **Interventions**

Chronic hemodialysis with high-flux membranes vs low-flux membranes.

### **Intervention Type**

Other

### **Phase**

Not Specified

### **Primary outcome(s)**

All-cause mortality, determined upon occurrence throughout the complete study period.

### **Key secondary outcome(s)**

1. Mortality due to infections
2. Mortality due to cardiovascular causes
3. Morbidity due to all causes
4. Morbidity due to infections
5. Morbidity due to problems related to vascular access
6. Pre-dialysis beta2-microglobulin levels
7. Pre-dialysis plasma levels of Advanced Glycosylation End-products (AGE)
8. Hematocrit levels and related rHu-EPO dose
9. Triglycerides and the High Density Lipoproteins (HDL) / Low Density Lipoprotein (LDL)

cholesterol ratio  
10. Pre-dialysis bicarbonate  
11. Nutritional parameters  
12. Protein Catabolic Rate (PCR)  
13. Residual renal function

1 to 5 above were determined upon occurrence throughout the complete study period, and the other parameters in 6-monthly intervals.

**Completion date**

15/07/2006

## **Eligibility**

**Key inclusion criteria**

1. Age between 18 and 80 years old
2. Up to two months on renal replacement therapy

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Scheduled for renal transplantation from a living donor within the period of the study
2. On hemodialysis after renal transplantation
3. Serious clinical conditions:
  - 3.1. Nephrotic syndrome
  - 3.2. Active malignancies
  - 3.3. Current therapy with immunosuppressive agents
  - 3.4. Severe congestive heart failure despite maximal therapy (New York Heart Association [NYHA] class IV)
  - 3.5. Unstable angina pectoris
  - 3.6. Active systemic infections (i.e. tuberculosis, systemic fungal infection, AIDS, hepatitis)
  - 3.7. Chronic pulmonary disease requiring supplementary oxygen
  - 3.8. Cirrhosis with encephalopathy

**Date of first enrolment**

15/12/1998

**Date of final enrolment**

15/07/2006

**Locations****Countries of recruitment**

Belgium

France

Germany

Greece

Italy

Poland

Portugal

Spain

Sweden

**Study participating centre**

**Department of Nephrology and Dialysis**

Lecco

Italy

23900

**Sponsor information****Organisation**

Fresenius Medical Care (Germany)

**ROR**

<https://ror.org/04sk0bj73>

**Funder(s)****Funder type**

Industry

**Funder Name**

Fresenius Medical Care, for organisational support, monitoring and central laboratory analysis (Germany)

## Results and Publications

**Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/07/2011		Yes	No
<a href="#">Protocol article</a>	protocol	01/03/1999		Yes	No