Systemic Levels of Cystatin C in Critically Ill Patients with Acute Renal Failure Requiring Hemofiltration.

Published: 12-09-2006
Last updated: 20-05-2024

To evaluate whether (changes in) systemic CysC-concentration can be used as a marker for improvement of the renal function in critically ill patients while treated with HF.

Ethical review	Approved WMO
Status	Pending
Health condition type	Renal disorders (excl nephropathies)
Study type	Observational non invasive

Summary

ID

NL-OMON29927

Source
ToetsingOnline

Brief title
SCARF 2

Condition

- Renal disorders (excl nephropathies)

Synonym
renal dysfunction, renal failure

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: acute renal failure, Cystatin C, hemofiltration

Outcome measures

Primary outcome

Termination of hemofiltration.

Secondary outcome

Unsuccessful termination of hemofiltration.

Study description

Background summary

Critically ill patients admitted in ICU are at high risk for developing acute renal failure and 4-6% will require some form of renal replacement therapy. It is difficult to predict residual renal function when patients are treated with hemofiltration. Indeed, plasma creatinine and urea are removed by the filter, and thus are useless for determine residual renal function.
Cystatin C is a protein produced by all nucleated cells at a constant rate, independent of age, gender and muscle mass. It is completely filtrated in the glomerulus and metabolized in the tubulus. In addition, plasma cystatin C concentrations are not influenced significantly by hemofiltration.
The serum CysC concentration has been advocated as a marker of residual renal function in patients with renal failure while being treated with HF.

Study objective

To evaluate whether (changes in) systemic CysC-concentration can be used as a marker for improvement of the renal function in critically ill patients while treated with HF.

Study design

Multicenter, observational study.

Study burden and risks

Blood specimens are collected twice per week thereafter until end of stay in

ICU; urine samples are collected at the same time points, per sample 5 cc of blood is obtained. In addition, urine samples and ultrafiltrate samples are obtained.

Contacts

Public
Academisch Medisch Centrum

Meibergdreef 9
1105 AZ Amsterdam
Nederland
Scientific
Academisch Medisch Centrum

Meibergdreef 9
1105 AZ Amsterdam
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

ARF for which HF is started.
Age > 18 years.

Exclusion criteria

Contraindication for hemofiltration.
Patients on chronic renal replacement therapy before present admission.

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-08-2006
Enrollment:	80
Type:	Anticipated

Ethics review

Approved WMO

Application type:	First submission
Review commission:	METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL13216.018.06