Determination of sodium content in sweat in critically ill hypernatremic patients.
Does Non osmotic storage of tissue sodium influence sweating and thermoregulation

Published: 19-11-2014
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To noninvasively investigate the amount and (sodium and chloride) content of sweat in hypernatremic patients in the ICU.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Electrolyte and fluid balance conditions
Study type	Observational non invasive

Summary

ID

NL-OMON40660

Source
ToetsingOnline

Brief title
The role of sweating in hypernatremic ICU patients

Condition

- Electrolyte and fluid balance conditions

Synonym
Non osmotic storage of sodium, Sweating

Research involving
Human

Sponsors and support

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

Intervention

Keyword: Hypernatremia, Non osmotic storage of sodium, Sweating, Thermoregulation

Outcome measures

Primary outcome

Sodium and chloride content in sweat and association with non-inflammatory

hyperthermia

Secondary outcome

None

Study description

Background summary

Non osmotic active storage of sodium was recently discovered is healthy individuals on high salt diet. Critically ill patients in the ICU are due to their illness treated with high salt in their intravenous fluids. There is a relationship between hypernatremia and non-inflammatory hyperthermia. Whether non osmotic active storage of sodium occurs in critically ill is unknown as well as whether this influences their ability to sweat and therewith thermoregulate.

Study objective

To noninvasively investigate the amount and (sodium and chloride) content of sweat in hypernatremic patients in the ICU.

Study design

Prospective, observational, single center pilot study

Study burden and risks

The sweat test is non-invasive, currently in use in newborns and small children (< 2 years) for the diagnostic purpose for cystic fibrosis. The test can be done in bed, and takes 60 minutes.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Adult patients admitted to the ICU of the UMCG
Hypernatremia (> 150 mmol/l)
> 3 days

Exclusion criteria

Age < 18 years

Study design

Design

Study type: Observational non invasive

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

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	19-11-2014
Enrollment:	10
Type:	Actual

Ethics review

Approved WMO

Date:	19-11-2014
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

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	NL49873.042.14