Stress and ETS: Measuring the neuroendocrine stress response of participants in a hospital disaster response simulation.

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Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON30907

Source
ToetsingOnline

Brief title
Stress and ETS

Condition

- Other condition

Synonym
Stress response / stress coping

Health condition

Omgang met stress

Research involving

Human

Sponsors and support

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

Intervention

Keyword: Disaster, Neuroendocrine, Simulation, Stress

Outcome measures

Primary outcome

The main study endpoint is the neuro-endpcrine stress response to the ETS training. The response is measured by the cortisol and amylase levels in the saliva, the heart rate and variability in the heart rate, the answers to the questionnaires, and the stress perception as measured by the VAS.

Secondary outcome

Secundary outcome measures are the influence of chronic strecc, sensitivity to stress, task, and experience with MCI situations on the course of the neuro-endocrine stress response.

Study description

Background summary

Disaster simulations are the traditional method of assessing hospital disaster preparedness. Some studies have suggested that Mass-Casualty Incident (MCI) training can be effective in training hospital staff. However, hard evidence of the effectiveness of MCI training is limited.
It can be hypothesized that stress is a crucial element of MCI training. The experience with stressful (training) situations may aid adequate behavior during real MCI situations. Furthermore, there may be a large difference between different MCI training methods in the level of stress experienced by the participants. Factors that introduce stress in MCI training may be

maintaining an actual time frame and warranting the continuity of the patientflow. However, there is no evidence available on stress responses in MCI training participants or the factors that may be of influence.
The Emergo Train System (ETS) is a training and simulation method for the medical response to disasters and major accidents. It is a *real time* training method in which the continuity if the patientflow depends on the weakest link in the chain that follows triage. These factors are expected to impose stress to the trainees which may be comparable to real disaster situations.

Study objective

The primary objective is to evaluate the neuro-endocrine stress response during ETS training.
The secondary objectives are to assess whether chronic stress, individual sensitivity and personal experience with trauma or disaster medicine are predictive factors for the individual stress response during an ETS training.

Study design

Observational study

Study burden and risks

Subjects will take part in the ETS training regardless of this study. The interventions are non-invasive and will not cause any risk. Wearing the Polar* heart rate monitor, answering a questionnaire and donating saliva shortly before, during and after the training will cause a minimal inconvenience for the subjects; however, it is not harmful. Measuring the baseline saliva cortisol secretion on a random day before the ETS training is necessary to determine the extent of elevation of the cortisol level during the training. Following the protocol for baseline measurement of the saliva cortisol level might be a small burden for these healthy medical professionals

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

Participating in an ETS training, informed consent

Exclusion criteria

No specific exclusion criteria will be used.

Study design

Design

Study type: Observational invasive

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

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-09-2007
Enrollment:	18
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	NL18708.018.07