

# The efficacy of Virtual Reality in Burn Care

## Psychological variables associated with the effect of VR during wound care

Published: 30-12-2015

Last updated: 15-05-2024

Primary, this study investigates the effect of VR on procedural pain. Secondary, this study investigates the effect of VR on satisfaction with the procedure, identifies patient-related, burn wound-related and psychology-related variables associated...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Other condition
<b>Study type</b>	Observational non invasive

### Summary

#### ID

NL-OMON42779

#### Source

ToetsingOnline

#### Brief title

The efficacy of Virtual Reality in Burn Care

#### Condition

- Other condition

#### Synonym

Pain, Satisfaction

#### Health condition

Brandwonden

#### Research involving

Human

## Sponsors and support

**Primary sponsor:** Martini Ziekenhuis

**Source(s) of monetary or material Support:** de Vriendenloterij

## Intervention

**Keyword:** Pain management, Psychological factors, Virtual Reality, Wound care

## Outcome measures

### Primary outcome

VR is effective in reducing pain, when there are both statistically and clinically significant differences between the VAS-scores of overall pain during care as usual with VR and care as usual. The clinically significant difference include that the VAS-score of overall pain during care as usual with VR is \*0.9 cm lower than the VAS-score of overall pain during care as usual

### Secondary outcome

- The satisfaction with the use of VR is meaningful when the VAS-score of satisfaction with care as usual with VR is not statistically and clinically significantly lower than the VAS-score of satisfaction with care as usual. The clinically significant difference include that the VAS-score of satisfaction with care as usual with VR is not \*0.9 cm lower than the VAS-score of satisfaction with care as usual.
- The identification of independent variables associated with the expected statistically and clinically significant differences in pain and satisfaction, between care as usual with VR and care as usual.
- The number of milligrams sedation and/or analgesics used during care as usual

with VR compared to care as usual.

- The number of minutes of care as usual with VR compared to care as usual.
- The number of patients reporting nausea as a consequence of the use of VR.
- The description of the user friendliness of the VR-equipment with patients and medical professionals.

## Study description

### Background summary

VR turned out to be promising as adjunct non-pharmacological intervention during wound dressing changes. Because the evidence for VR as pain relief is limited, more high-quality studies are needed to investigate the effect of VR on procedural pain. This study focuses on both the effectiveness and efficacy of VR, and succeeds previous study in Martini Hospital Burn Centre (METC 2004-42).

### Study objective

Primary, this study investigates the effect of VR on procedural pain. Secondary, this study investigates the effect of VR on satisfaction with the procedure, identifies patient-related, burn wound-related and psychology-related variables associated with the effectiveness of VR. Furthermore, this study focuses on sedation and/or analgesic requirements, procedure time and nausea as a side-effect. Lastly, this study investigates the user friendliness of the VR-equipment with both patients and medical professionals.

### Study design

Randomized controlled trial; the admission order determines the allocation to the treatment or control group. After ten inclusions to one group, the following ten patients are allocated to the other group. In total, 128 patients are needed.

### Study burden and risks

Using VR during wound dressing changes has several benefits. Patients benefit a reduction in pain experience, but also reduction in amount of sedation and therefore reduction in risk on side effects. A few studies describe nausea as

possible side effect of the use of VR. Patients recover directly by putting off the VR glasses.

## Contacts

### **Public**

Martini Ziekenhuis

Van Swietenplein 1  
Groningen 9700RM  
NL

### **Scientific**

Martini Ziekenhuis

Van Swietenplein 1  
Groningen 9700RM  
NL

## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### **Age**

Adolescents (12-15 years)  
Adolescents (16-17 years)  
Adults (18-64 years)  
Children (2-11 years)  
Elderly (65 years and older)

### Inclusion criteria

- Age 8 years and older
- Expected admission time for at least 4 days
- Informed consent
- Mentally competent
- Dutch speaking and reading

- Permission of doctor
- Permission of psychiatrist
- Ability to use VR

## Exclusion criteria

- Physical impairments (facial burns)
- Need for intensive care / severe comorbidity

## Study design

### Design

Study type:	Observational non invasive
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)

**Primary purpose:** Treatment

### Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	03-10-2016
Enrollment:	128
Type:	Actual

## Ethics review

Approved WMO	
Date:	30-12-2015
Application type:	First submission
Review commission:	RTPO, Regionale Toetsingscie Patientgebonden Onderzoek (Leeuwarden)
Approved WMO	
Date:	03-05-2016

Application type:	Amendment
Review commission:	RTPO, Regionale Toetsingscie Patientgebonden Onderzoek (Leeuwarden)

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

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

ID: 29656

Source: Nationaal Trial Register

Title:

### In other registers

Register	ID
CCMO	NL54030.099.15
OMON	NL-OMON29656