

# Pilot studie: Dystrofische signaalpaden in haarfollikels na chemotherapie

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Damage response pathways can possibly explain the working mechanism of scalp cooling

<b>Ethische beoordeling</b>	Positief advies
<b>Status</b>	Werving gestopt
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Observationeel onderzoek, zonder invasieve metingen

## Samenvatting

### ID

NL-OMON22244

### Bron

Nationaal Trial Register

### Verkorte titel

PATH study

### Aandoening

Signaalpad, kaalheid, chemotherapie, hoofdhuidkoeling  
Pathway, alopecia, chemotherapy, scalp cooling

### Ondersteuning

**Primaire sponsor:** Medisch Centrum Alkmaar  
**Overige ondersteuning:** Medisch Centrum Alkmaar

### Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

Expression of damage-response pathways

# Toelichting onderzoek

## Achtergrond van het onderzoek

Alopecia is an almost inevitable side effect of chemotherapy treatment. In cancer patients chemotherapy induced alopecia is experienced as one of the side effects with the most impact. Several factors may contribute to the severity of hair loss including dose, drug schedule, combinations with other cytotoxic agents as well as hair care practices. Research shows scalp cooling is an effective method to prevent chemotherapy induced hair loss. The exact working mechanism is unclear. Therefore we do not know why scalp cooling is effective in one patient but not in another.

The objective of this study is to explore molecular damage-response pathways such as p53 expression in hair follicles after chemotherapy.

The study will be conducted in the outpatient chemotherapy clinic of the department of internal medicine of the Medical Center Alkmaar. Patients will be asked to participate at the time of their first contact with the oncology nurse to schedule their first chemotherapy. After providing informed consent, hairs will be collected during the first chemotherapy course.

## Doel van het onderzoek

Damage response pathways can possibly explain the working mechanism of scalp cooling

## Onderzoeksopzet

Hair samples will be collected at different time points.

Hair samples will be collected at:

t=0 (before treatment with chemotherapy)

t=2 (two days after chemotherapy)

t=4 (four days after chemotherapy)

t=8 (eight days after chemotherapy)

t=12 (twelve days after chemotherapy)

t=16 (sixteen days after chemotherapy)

The study will end when no fluctuation is seen between the different time-points.

### **Onderzoeksproduct en/of interventie**

This pilot study will explore molecular damage-response pathways such as p53 expression in hair follicles after chemotherapy. It is known that all patients treated with TAC, FEC and AC (any combination chemotherapy schedule including an anthracycline) lose their hair within two to three weeks. This pilot study explores various time-points to detect whether p53 fluctuates between these time-point. If there is no fluctuation between the different time-points in ten patients, it is unlikely to detect any fluctuation when more patients are included.

## **Contactpersonen**

### **Publiek**

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## **Deelname eisen**

### **Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)**

- Female patients with breast cancer
- Age 18 years or more

- Written informed consent
- Indication for at least one cycle of intravenous administered Docetaxel-Adriamycin-Cyclofosfamide (TAC), Fluorouracil-Epirubicin-Cyclophosphamide (FEC) or Adriamycin-Cyclophosphamide (AC).

## **Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)**

- Use of scalp cooling

## **Onderzoeksopzet**

### **Opzet**

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Parallel
Toewijzing:	N.v.t. / één studie arm
<b>Controle:</b>	N.v.t. / onbekend

### **Deelname**

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	01-11-2013
Aantal proefpersonen:	10
Type:	Werkelijke startdatum

## **Ethische beoordeling**

Positief advies	
Datum:	06-01-2014
Soort:	Eerste indiening

## **Registraties**

## **Opgevolgd door onderstaande (mogelijk meer actuele) registratie**

ID: 40394

Bron: ToetsingOnline

Titel:

## **Andere (mogelijk minder actuele) registraties in dit register**

Geen registraties gevonden.

## **In overige registers**

<b>Register</b>	<b>ID</b>
NTR-new	NL4192
NTR-old	NTR4343
CCMO	NL45436.094.13
ISRCTN	ISRCTN wordt niet meer aangevraagd.
OMON	NL-OMON40394

## **Resultaten**

### **Samenvatting resultaten**

N/A