

# Long-term hematopoiesis in transplantation survivors

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Hematopoietic stem cell transplantation (HSCT) is a last-resort, curative therapy for patients suffering from various, otherwise lethal, diseases. Due to improved treatment strategies, the number of HSCT survivors and their life expectancy continue...

<b>Ethische beoordeling</b>	Niet van toepassing
<b>Status</b>	Werving nog niet gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Observationeel onderzoek, zonder invasieve metingen

## Samenvatting

### ID

NL-OMON20624

### Bron

Nationaal Trial Register

### Verkorte titel

Long-term HIT

### Aandoening

Allogeneic Hematopoietic Stem Cell Transplantation

### Ondersteuning

**Primaire sponsor:** Prinses Máxima Center for Pediatric Oncology

**Overige ondersteuning:** Princess Máxima Center for Pediatric Oncology

### Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

Determine the percentage of HSCT survivors with hematopoietic dysfunction, defined as: (1) cytopenia; (2) clonal hematopoiesis; (3) loss of donor chimerism; (4) bone marrow failure; (5)

myelodysplasia; and (6) donor-cell leukemia.

## Toelichting onderzoek

### Achtergrond van het onderzoek

This is an observational, explorative study, embedded in the HSCT LATER outpatient clinic of the Princess Máxima Center. The study visit will be combined with a clinical visit, as part of regular post-HSCT follow-up. All participants will undergo clinical assessment of HSCT-related long-term effects by a trained physician, including measurement of differential blood counts, as part of routine clinical care. For this study, we will use these clinical data, and collect an additional blood sample for in-depth assessment of hematopoietic integrity after HSCT.

### Doel van het onderzoek

Hematopoietic stem cell transplantation (HSCT) is a last-resort, curative therapy for patients suffering from various, otherwise lethal, diseases. Due to improved treatment strategies, the number of HSCT survivors and their life expectancy continue to increase<sup>1</sup>. In pediatric HSCT survivors, the donor stem cells may have to live far beyond the normal human life span<sup>2</sup>. It remains unknown whether transplanted HSCs can sustain life-long healthy blood production in these recipients. In the current project, we hypothesize that HSCT compromises HSC longevity and predisposes to (age-related) hematopoietic dysfunction in the recipient.

### Onderzoeksopzet

Single collection of peripheral blood >5 years after HSCT

### Onderzoeksproduct en/of interventie

From each HSCT survivor, we will collect up to 50 mL peripheral blood. For participants <25 kg, the volume of blood will be adjusted to 2 mL per kg bodyweight (2.5% of total blood volume).

## Contactpersonen

### Publiek

Princess Máxima Center  
Konradin Müskens

088 972 7272

## **Wetenschappelijk**

Princess Máxima Center  
Konradin Müskens

088 972 7272

## **Deelname eisen**

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

- Underwent allogeneic HSCT at age  $\leq 18$  yrs
- A minimum survival of 5 years after HSCT. In case a patient has received multiple HSCTs, the last HSCT will be used to determine this 5-year minimum.

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

- Recipients of a “NiCord” HSCT. NiCord is a clinical trial on the safety and efficacy of transplantation of ex vivo expanded cord blood HSCs. As outcome measures of our study overlap with the outcome of this trial, NiCord recipients will be excluded.
- Failure of the HSCT recipient and/or their legal representatives to understand the patient information and informed consent form (either due to intellectual disability or to language problems).

## **Onderzoeksopzet**

### **Opzet**

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

## Deelname

Nederland  
Status: Werving nog niet gestart  
(Verwachte) startdatum: 01-09-2021  
Aantal proefpersonen: 150  
Type: Verwachte startdatum

## Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

**Wordt de data na het onderzoek gedeeld:** Nog niet bepaald

## Ethische beoordeling

Niet van toepassing  
Soort: Niet van toepassing

## Registraties

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

ID: 54142  
Bron: ToetsingOnline  
Titel:

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

Geen registraties gevonden.

## In overige registers

Register	ID
NTR-new	NL9587
CCMO	NL77721.041.21
OMON	NL-OMON54142

## Resultaten