

# Improving treatment adherence in chronically ill adolescents and young adults.

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To test whether the Emma-app and/or a financial incentive can improve therapy adherence, clinical disease outcomes and quality of life in adolescents and young adults with a chronic health condition.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Will not start
<b>Health condition type</b>	Other condition
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON46629

### Source

ToetsingOnline

### Brief title

METT 2 study

### Condition

- Other condition

### Synonym

Chronic diseases

### Health condition

Meerdere chronische aandoeningen

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Academisch Medisch Centrum

**Source(s) of monetary or material Support:** Stichting Steun Emma

## Intervention

**Keyword:** Adolescents, Chronic diseases, Therapy adherence, Young adults

## Outcome measures

### Primary outcome

The difference in adherence rates from baseline to endpoint and between the different groups.

### Secondary outcome

The difference in clinical disease outcomes and quality of life from baseline to endpoint and between the different groups.

Cost-effectiveness analysis of the study.

## Study description

### Background summary

Many people suffer from a chronic health condition requiring daily medication intake, which affects them in their daily lives. To be adherent to therapy is important but difficult, especially for adolescents and young adults. Less than half of the chronically ill adolescents is adherent to therapy. Non-adherence leads to more comorbidities, increased health utilization with the additional higher costs and higher mortality rates. Many interventions to improve adherence have been evaluated, but no long-lasting solution has been found yet. In this modern age, where technology is more and more important, e-health seems promising to enhance several health outcomes. The Emma-application runs on a smartwatch and is a combination of a reminder- and monitoring system. What makes this app so unique, is the possibility to add a social community to give extra support to the patient. Financial incentives have shown great promise in previous research to change behavior and to enhance adherence. Adolescents seem to be very receptive for incentives and rewards. In this study we will evaluate if the combination of the Emma-app and a

financial incentive can improve therapy adherence, disease outcomes and quality of life in adolescents and young adults with a chronic health condition, on daily treatment.

## **Study objective**

To test whether the Emma-app and/or a financial incentive can improve therapy adherence, clinical disease outcomes and quality of life in adolescents and young adults with a chronic health condition.

## **Study design**

This multicenter study will be conducted in three phases. The first phase is a prospective, longitudinal cohort study, with a duration of one year. The second phase is a single blinded, randomized controlled trial, with a duration of six months. The third and last phase is a follow-up period with a duration of six months.

## **Intervention**

All participants will receive standard care. No extra visits or medical tests are necessary. After inclusion (at baseline), study participants will be monitored for six months. After six months, (T1), all study participants will receive a smartwatch, which has the Emma-app installed. After one year (T2), all non-adherent patients will be randomized into two groups: the first group will receive a financial incentive in the event of optimal adherence for six months. The second group will not receive this incentive. After 18 months there will be a follow-up period of six months to evaluate whether the effect of the financial incentive will last. The study will end after 24 months (T4).

## **Study burden and risks**

The study participants will be asked to fill out Quality of life questionnaires on five occasions; at T0, T1, T2, T3 and T4. There are no extra hospital visits or medical tests required to participate. There are no risks associated with participation in this study. The extra burden is negligible.

## **Contacts**

### **Public**

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## **Trial sites**

### **Listed location countries**

Netherlands

## **Eligibility criteria**

### **Age**

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

### **Inclusion criteria**

Patients are adolescents and young adults (12-30 years old)  
Patients have a chronic somatic disease  
Patients use medication daily  
Patient own a smartphone with an android- or ios-based operating system.  
Patients have to choose a buddy.  
Written informed consent of the participants and legal guardians (when underage)

### **Exclusion criteria**

Patiënten that have a psychiatric condition, not a somatic disease.  
Patiënten that do not have sufficient knowledge of the Dutch language.  
No signed informed consent.

## Study design

### Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active
Primary purpose:	Treatment

### Recruitment

NL	
Recruitment status:	Will not start
Enrollment:	500
Type:	Anticipated

## Ethics review

Approved WMO	
Date:	13-04-2018
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

CCMO

### ID

NL62591.018.17