

# SMASHING in adolescents: Self-Management of Asthma Supported by Hospitals, Information and communication technology, Nurses and General practitioners

<b>Submission date</b> 28/12/2006	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 28/12/2006	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 22/05/2013	<b>Condition category</b> Respiratory	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

## Study information

Scientific Title

**Acronym**

SMASHING

**Study objectives**

A self-management programme guided by doctors and a specialist asthma nurse through information and communication technology will improve asthma related quality of life in a cost-effective way.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Approval received from the local ethics committee (Commissie Medische Ethiek) on the 7th August 2006 (reference number: P06.110).

**Study design**

Randomised, controlled, parallel group, multicentre trial

**Primary study design**

Interventional

**Study type(s)**

Treatment

**Health condition(s) or problem(s) studied**

Asthma

**Interventions**

Please note that as of 06/02/2008 the anticipated end date of this trial was extended to 30/05/2009. The previous end date of this trial was 30/06/2008.

Information and Communication Technology (ICT)-supported care:

1. Asthma self-management education in small groups (two sessions per group) by trained asthma specialist nurse:
  - a. Discussion of ACQ and ATAQ data in order to assess present situation and electronic asthma action plan
  - b. Review medication devices technique and adherence
  - c. Plan next doctor visits as needed
2. Monitoring asthma control by lung function and ACQ (input via website or SMS [text messaging]) with electronic data processing and feedback through computer via webpages with graphical presentation of data for patient and nurse
3. Virtual consulting room with asthma nurse via email and private messaging
4. Social support within a private chatbox and/or internet support group
5. Automated sending of reminders via email and/or SMS

Control group: usual care:

According to the Dutch General Practitioner (GP) guidelines, patients are invited to visit their general practitioner every three months in order to titrate medication to the lowest level that is needed to maintain control. This frequency can be lowered to one to two visits per year once control of asthma has been achieved. Thirty percent of general practices have nurse

practitioners providing self-management education. Patients are referred to a pediatrician /pediatric pulmonologist if sufficient control is not achieved within three months. Exacerbations of asthma are treated by either pediatrician and general practitioner:

1. Advise to visit to general practitioner or pediatrician to assess present situation
2. Review medication devices technique and adherence
3. Issue and explain paper asthma action plan, monitoring of lung function with Piko-1 spirometer
4. Plan next doctor visits as needed

### **Intervention Type**

Other

### **Phase**

Not Applicable

### **Primary outcome(s)**

Health related quality of life as measured by the Pediatric Asthma Quality of Life Questionnaire (PAQLQ).

### **Key secondary outcome(s)**

1. Asthma control
2. Symptom free days
3. Exacerbations
4. Health care utilisation
5. Absence of work/school
6. Lung function
7. Exhaled nitric oxide
8. Medication use
9. Self-reported asthma management behaviour
10. Side effects

### **Completion date**

30/05/2009

## **Eligibility**

### **Key inclusion criteria**

1. Age 12 to 17 years
2. Doctors diagnosis of asthma
3. Mild to severe persistent asthma (patients who need inhaled corticosteroids as controller medication)
4. At least one asthma control problem (Asthma Therapy Assessment Questionnaire [ATAQ] score more than or equal to one or Asthma Control Questionnaire [ACQ] more than or equal to one)
5. Able to communicate in the Dutch language

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

**Age group**

Child

**Lower age limit**

12 years

**Upper age limit**

17 years

**Sex**

Not Specified

**Key exclusion criteria**

Patients requiring oral corticosteroids as controller medication and patients with relevant comorbidity will be excluded.

**Date of first enrolment**

15/12/2006

**Date of final enrolment**

30/05/2009

## **Locations**

**Countries of recruitment**

Netherlands

**Study participating centre**

Department of Medical Decision Making, J10-86

Leiden

Netherlands

2300 RC

## **Sponsor information**

**Organisation**

Leiden University Medical Center (LUMC) (Netherlands)

**ROR**

<https://ror.org/05xvt9f17>

# Funder(s)

## Funder type

Research organisation

## Funder Name

Astmafonds (Netherlands)

# Results and Publications

## Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not provided at time of registration

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/12/2012		Yes	No
<a href="#">Study website</a>	Study website	11/11/2025	11/11/2025	No	Yes