# Video-analysis of asthma symptoms in children

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Observational non invasive

# **Summary**

## ID

NL-OMON25826

Source NTR

**Brief title** VIDEO STUDY

#### Health condition

Childhood asthma, video-analysis, dyspnea, telemedicine

## **Sponsors and support**

Primary sponsor: University of Twente, Enschede
Medical Spectrum Twente, Enschede
Source(s) of monetary or material Support: fund = initiator = sponsor

## Intervention

### **Outcome measures**

#### **Primary outcome**

Presence/absence of exercise induced bronchoconstriction

#### Secondary outcome

VAS dyspnea score

# **Study description**

#### **Background summary**

In children, the diagnosis asthma is based mostly on comprehensive anamnesis and physical examination1. Since symptoms of asthma occur episodically, they are often absent during an elective visit to the specialist. A common, highly specific stimulus for asthma in children is exercise, so called exercise-induced bronchial obstruction4,5. However, exercise tests are labor intensive and require specialized facilities, and is therefore used restrictedly in clinical practice1. So, there is a clinical need for a low-cost, objective alternative for the assessment of dyspnea in children, not only to improve asthma diagnostics, but also to enhance self-management of this chronic disease, which is currently a time-consuming process, including regular and costly visits to the specialist3.

This study was designed in order to improve the diagnostic process and monitoring of asthma in children in order to tailor therapy, reduce cost and increase efficiency. We hypothesize that evaluation of asthma symptoms in a home setting serves as the best indicator of the presence, severity and/or control of asthma in children. We consider video-evaluation of asthma symptoms a potential low-end and objective addition to the clinical practice of asthma (including self-management).

The aim of this study is to develop a video-analysis tool that is able to quantify specific asthma symptoms. By taking video recordings of children undergoing exercise-challenge testing, the relationship between pulmonary function and video-analysis of asthma symptoms can be explored in an experimental setting.

#### **Study objective**

We hypothesize that video-analyzed symptoms of dyspnea are a good predictor of the presence and severity of exercise-induced bronchoconstriction.

#### Study design

- moment that children undergo an exercise challenge test (part of regular care)

#### Intervention

none, only observations

# Contacts

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# **Eligibility criteria**

# **Inclusion criteria**

-Clinical history of asthma or suspected of having asthma.

-Age between 4-17 years.

-Ability to perform reproducible lung function tests, i.e. coefficient of the predicted value variation in 3 of 5 consecutive measurements < 5%.

## **Exclusion criteria**

-Airflow limitiation in baseline spirometry (forced expiratory volume in the first second (FEV1), <60% of predicted).

# Study design

## Design

Study type:

Observational non invasive

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Intervention model:	Parallel
Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

## Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	01-06-2015
Enrollment:	100
Туре:	Actual

# **Ethics review**

Positive opinion	
Date:	03-06-2015
Application type:	First submission

# **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	ID
NTR-new	NL5280
NTR-old	NTR5387
Other	: k15-03

# **Study results**