

Video-analysis of asthma symptoms in children

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

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

Samenvatting

ID

NL-OMON25826

Bron

NTR

Verkorte titel

VIDEO STUDY

Aandoening

Childhood asthma, video-analysis, dyspnea, telemedicine

Ondersteuning

Primaire sponsor: University of Twente, Enschede
Medical Spectrum Twente, Enschede

Overige ondersteuning: fund = initiator = sponsor

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Presence/absence of exercise induced bronchoconstriction

Toelichting onderzoek

Achtergrond van het onderzoek

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 obstruction^{4,5}. 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.

Doel van het onderzoek

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

Onderzoeksopzet

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

Onderzoeksproduct en/of interventie

none, only observations

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- 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%.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

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

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Parallel

Toewijzing:	N.v.t. / één studie arm
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	01-06-2015
Aantal proefpersonen:	100
Type:	Werkelijke startdatum

Ethische beoordeling

Positief advies	
Datum:	03-06-2015
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL5280
NTR-old	NTR5387
Ander register	: k15-03

Resultaten