EMG registration in chidhood asthma

No registrations found.

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

Summary

ID

NL-OMON21067

Source
Nationaal Trial Register

Brief title
AACE

Health condition

childhood asthma eib bronchoconstriction astma inspanningsastma bronchoconstrictie

Sponsors and support

Primary sponsor: MST Enschede
Source(s) of monetary or material Support: MST Enschede

Intervention

Outcome measures

Primary outcome

A scale correlating the increase in muscle activity to the gold standard determination of asthma severity

Secondary outcome

Accuracy and reproducibility of EMG signals in children

Breathing patterns after exercise scaled to the severity of asthma

Cardiac activity after exercise scaled to the severity of asthma

Study description

Background summary

Asthma is a chronic disease affecting about 10% of children in the Netherlands. The current method of determining childhood asthma consists of an extensive exercise challenge test. Whilst precise, the tests are expensive and time consuming. Electromyography recorded with a wearable device provides additional information and may in the future be used to assess children outside of the hospital in more life-like situations. This study aims to prove EMG is a viable tool in assessing childhood asthma, by comparing the outcome parameters with the current gold standard. If EMG proves feasible, this makes way for further research in this population.

Study objective

An increase of diaphragmatic and accessory breathing muscle activity is an indicator for the severity of childhood asthma.

Study design

-3 weeks before exercise challenge test: recruitment of patients

-2 weeks before exercise challenge test: patient information forms sent to patients and parents

Just before exercise challenge test: signing informed consent forms, applying measurement equipment

Measurement runs until end of exercise challenge test

Intervention

Electromyography recording

Contacts

Public

Medisch Spectrum Twente / Kindergeneeskunde
Pascal Keijzer
Enschede
The Netherlands
+31 (0)53 487 23 10
Scientific
Medisch Spectrum Twente / Kindergeneeskunde
Pascal Keijzer
Enschede
The Netherlands
+31 (0)53 487 23 10

Eligibility criteria

Inclusion criteria

Children between the ages of 6 and 17 with (suspected) asthma who are submitted to perform an exercise challenge test

Exclusion criteria

Children and/or parents that do not understand Dutch

Children with a pacemaker or ICD

Children with chronic diseases, other than asthma

Children with psychomotor retardation

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other

Control: N/A , unknown

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	21-03-2018
Enrollment:	50
Type:	Actual

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion

Date:	07-03-2018
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	NL6891
NTR-old	NTR7078
Other	MEC protocol number : K18-12

Study results

Summary results
None yet