Administration of Bronchodilators Based on Astma score

Gepubliceerd: 23-07-2021 Laatst bijgewerkt: 18-08-2022

A clinical pathway with adjusted treatment thresholds for patients who need supplemental oxygen will reduce the number of unnecessary bronchodilator administrations.

Ethische beoordeling	Positief advies
Status	Anders
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON29161

Bron
NTR

Verkorte titel
ABBA

Aandoening

Asthma

Ondersteuning

Primaire sponsor: Martini Hospital Groningen, The Netherlands
Overige ondersteuning: Martini Hospital Groningen

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Difference in admission time for children with acute asthma who are treated according to the current nurse-driven pathway or the new pathway with adjusted treatment thresholds for patients who need supplemental oxygen.

Toelichting onderzoek

Achtergrond van het onderzoek

The administration of bronchodilators for acute asthma is based on serial assessments of the patient’s respiratory status. In daily practice, this may result in variability and/or delay in the decision-making process to wean or intensify bronchodilator administration. We aim to improve the quality of care by standardizing inpatient asthma care and reduce the length of stay. We developed an asthma score that does not require auscultation of the lungs. This innovative asthma score was adapted from the physical findings in pediatric asthma scores validated previously. We recently demonstrated that this childhood asthma score (CAS) could accurately predict the bronchodilator nebulization requirement compared to the routine clinical judgment of the attending physician to administer bronchodilators. Subsequently, we conducted a study to implement a nurse-driven clinical pathway based on our innovative asthma score. This pathway included standardized respiratory assessments and a protocol for the nursing staff to administer bronchodilators without a specific order from the physician. Length of stay was significantly reduced compared to the historical standard practice. Patient safety was not compromised.
The results of our previous study encourage us to further evaluate and adapt the pathway for patients who need supplemental oxygen. In this randomised study, length of stay and safety for patients who need supplemental oxygen treated according to the current pathway will be compared to a pathway with adjusted treatment thresholds.

Doel van het onderzoek

A clinical pathway with adjusted treatment thresholds for patients who need supplemental oxygen will reduce the number of unnecessary bronchodilator administrations.

Onderzoeksopzet

Length of hospital admission will be determined by obtaining date and time of admission and discharge from the electronic record form
Asthma scores are calculated by a validated Excel software algorithm and automatically registered in an Excel database.
All relevant data for the secondary outcomes will be obtained from the electronic record form one week after discharge to be able to register readmissions for acute asthma

Onderzoeksproduct en/of interventie

The intervention comprises adjusted treatment thresholds for patients with acute asthma who need supplemental oxygen.

Contactpersonen

Publiek

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Wetenschappelijk

Martini Ziekenhuis Groningen
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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

-children 2-18 years of age admitted for acute asthma
-treatment for acute asthma according to current dutch guideline
-supplemental oxygen use, low flow or high flow

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

-severe acute asthma for which intravenous albuterol is indicated
-unstable heart disease
-cystic fbrosis or other chronich or congenital lung disease
-any neurological disease
-any muscular disease

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

Deelname

Nederland

Status:	Anders
(Verwachte) startdatum:	01-09-2021
Aantal proefpersonen:	130
Type:	Onbekend

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Toelichting
N/A

Ethische beoordeling

Positief advies

Datum:	23-07-2021
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	NL9745
Ander register	METC UMCG : METc 2021/179

Resultaten

Samenvatting resultaten
N/A