Long-term inhaled nebulized tobramycin in patients with non-cystic fibrosis bronchiectasis. A randomized placebo controlled trial. The BATTLE study Bronchiectasis And Tobramycin SoluTion InhaLation ThErapy.

Published: 17-05-2016
Last updated: 17-04-2024

The primary outcome of the study is a 50% reduction in exacerbation rate in patients using TIS once daily (OD). Secondary outcome parameters are lung function (FEV1, FVC), QoL (QOL-B), LTRI-VAS, Leicester cough score), bacterial load in sputum and...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Bronchial disorders (excl neoplasms)
Study type	Interventional

Summary

ID

NL-OMON47248

Source
ToetsingOnline

Brief title
Inhaled nebulized tobarmycin in non-CF bronchiectasis

Condition

- Bronchial disorders (excl neoplasms)

Synonym
bronchiectasis

Research involving

Human

Sponsors and support

Primary sponsor: Medisch Centrum Alkmaar
Source(s) of monetary or material Support: Pulmoscience

Intervention

Keyword: bronchiectasis, nebulized, non-CF, Tobramycin

Outcome measures

Primary outcome

The primary endpoint is a reduction of exacerbations that patients suffer

during the treatment period.

Secondary outcome

Next to this parameter we expect to show a significant beneficial effect on

lung function parameters, QoL, bacterial load of pathogens in sputum and

tobramycin resistance.

Study description

Background summary

Patients with bronchiectasis often have exacerbations of their disease. These exacerbations influence the quality of life. In patients with cystic fibrosis (CF) inhaled antibiotics lower the bacterial load in bronchial secretions and have positive effect on the number of exacerbations, lung function and quality of life (QoL). In patients with non-CF bronchiectasis colonized with Pseudomonas aeruginosa studies with tobramycin inhalation solution (TIS) are limited, however with only five trials to date. In present study the value of TIS will be investigated in patients with non-CF bronchiectasis colonized by different bacterial species sensitive for tobramycin.

Study objective

The primary outcome of the study is a 50% reduction in exacerbation rate in

patients using TIS once daily (OD). Secondary outcome parameters are lung function (FEV1, FVC), QoL (QOL-B), LTRI-VAS, Leicester cough score), bacterial load in sputum and tobramycin resistant pathogens.

Study design

A randomised, placebo controlled, multicentre study

Intervention

During the study each group (placebo, intervention) receives TIS or placebo, once daily 300mg for a period of 12 months.

Study burden and risks

After informed consent patients have 3 monthly visits. During the visits patients have to deliver a sputum sample, fill in the QoL questionnaires and spirometry will be performed according the study schedule. Also a blood sample will be taken during a number of visits. All patients are instructed to use the nebulizer adequately. The whole procedure of TIS (preparation, inhalation and cleaning) takes approximately 15 minutes. Adverse effects consist of cough, wheezing and dyspnoea. In general practice salbutamol is used, before nebulizing TIS, to relieve these symptoms. TIS has already been used by a number of patients with bronchiectasis and is well tolerated. Safety of TIS will be assessed during each contact.

Contacts

Public
Medisch Centrum Alkmaar

wilhelminalaan 12
Alkmaar 1815JD
NL
Scientific
Medisch Centrum Alkmaar

wilhelminalaan 12
Alkmaar 1815JD
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

1. Age >= 18 years
2. The presence of chronic respiratory symptoms such as cough, dyspnoea, expectoration of sputum
3. Confirmed non-CF bronchiectasis by (HR)CT
4. Documented history of at least 2 pulmonary exacerbations treated with courses of antibiotics and/or prednisolone within 12 months before inclusion.
5. No course of antibiotics or maintenance antibiotics (except for macrolides) 1 month prior to the start of the study.
6. Minimal one documented sputum or BAL-fluid culture with gram-negative bacteria or S.aureus within 12 months.
7. Growth of protocol defined pathogens in sputum sensitive to tobramycin at screening visit

Exclusion criteria

1. Any exacerbation within the month prior to the start of the study
2. Diagnosis of cystic fibrosis
3. Active allergic bronchopulmonary aspergillosis (ABPA)
4. Any oral, IV or inhaled antibiotics (except for macrolides) within 1 month prior to the start of the study
5. Any IV or IM corticosteroids or change in oral corticosteroids (> 10 mg) within 1 month prior to the start of the study
6. Any change/start treatment regimens macrolides, hypertonic saline, inhaled mannitol or other mucolytics, corticosteroids within 1 month prior to the start of the study
7. Severe immunosuppression or active malignancy
8. Active tuberculosis
9. Chronic renal insufficiency (eGFR < 30 ml/min)
10. Have received an investigational drug or device within 1 month prior to the start of the

study
11. Serious or active medical or psychiatric illness
12. Pregnancy and child bearing
13. History of poor cooperation or non-compliance
14. Unable to use nebulizers
15. Allergic for tobramycin or NaCl 0.9%
16. Use of diuretics, urea or mannitol
17. Demonstrated heraring impairment, balance disorders or neuromuscular disorders
18. Serious active haemoptysis

Study design

Design

Study phase:	3
Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	16-09-2016
Enrollment:	58
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	Sodiumchlorid 0.9% 5ml
Generic name:	Sodiumchlorid 0.9% 5ml
Registration:	Yes - NL intended use
Product type:	Medicine
Brand name:	Tobramycin inhalation solution 300mg

Generic name:	Tobramycin inhalation solution 300mg
Registration:	Yes - NL intended use

Ethics review

Approved WMO Date:	17-05-2016
Application type:	First submission
Review commission:	METC Amsterdam UMC
Approved WMO Date:	08-08-2016
Application type:	First submission
Review commission:	METC Amsterdam UMC
Approved WMO Date:	21-12-2017
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	08-03-2018
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	26-06-2018
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	19-07-2018
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	03-01-2023
Application type:	Amendment
Review commission:	METC Amsterdam UMC

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
EudraCT	EUCTR2016-000166-35-NL
ClinicalTrials.gov	NCT02657473
CCMO	NL54939.094.16