Exposure assessment to quartz in construction workers with a elevated risk to silicosis

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which particles can be found in induced sputum of construction workers? What is the composition, size and concentration of quartz particles measured in sputum of the different exposure groups?

Ethical review	Approved WMO
Status	Will not start
Health condition type	Lower respiratory tract disorders (excl obstruction and infection)
Study type	Observational non invasive

Summary

ID

NL-OMON31803

Source
ToetsingOnline

Brief title
Exposure to quartz in construction workers

Condition

- Lower respiratory tract disorders (excl obstruction and infection)

Synonym
grinder's disease, lung fibrosis

Research involving
Human

Sponsors and support

Primary sponsor: Universiteit Utrecht
Source(s) of monetary or material Support: Ministerie van OC&W,zowel IRAS als Arbouw financieren

Intervention

Keyword: construction workers, exposure assessment, quartz, validation

Outcome measures

Primary outcome

Composition, size and concentration of quartz particles measured in sputum to

reconstruct exposure to construction dust.

Secondary outcome

NVT

Study description

Background summary

Construction workers are often exposed to quartz containing materials, and after repeated inhalation this can result in silicosis. It's is difficult to reconstruct exposure in the past, mostly this is done by registering the job title and tasks. A recently developed method can be helpful to give more insight in exposure by assessing type, size, distribution and the concentration of particles in collected sputum of construction workers. This project can increase the insight in composition and the quantity of exposure to construction dust in individual workers by analyzing induced sputum.

Study objective

which particles can be found in induced sputum of construction workers? What is the composition, size and concentration of quartz particles measured in sputum of the different exposure groups?

Study design

This observational study will be performed within a screening program for silicosis (regular health care). Construction workers with an increased risk to silicosis will be invited for a medical examination at the UMC Utrecht. At the same time they are asked if they are willing to provide us of induced sputum. We expect that 400 persons (including 100 controls) will participate. Most people will be asked to participate only once. About 20 persons will be asked if they are willing to participate another 2 times, to study the

reproducibility of the method.

Study burden and risks

In most participants sputum will be collected only once. The total estimated time is 45 minutes. Because the participants visit the clinic for the medical part, the additional burden of time will be low. There are no health risks associated with sputum induction.
In 20 construction workers 2 additional sputum samples will be collected, so this takes another 1.5 hours. They will be visited at their home address (if they agree).
The collected sputum can increase our insights in the amount and type of recently and cumulative exposure to quartz dust by construction work. This can help us in the desicion-making of the type of measures that can be taken to limit exposure to construction dust. Furthermore, this information can be useful in further screening of silicosis.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

workers in the construction trade with a high risk of development of silicosis (calculated with an earlier developed diagnostic rule)

Exclusion criteria

None

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Will not start
Enrollment:	400
Type:	Anticipated

Ethics review

Approved WMO

Date:	28-04-2008
Application type:	First submission

Review commission: METC Universitair Medisch Centrum Utrecht (Utrecht)

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
CCMO	NL19211.041.07