A randomised, double blind placebo controlled trial to (A) assess the optimal vitamin K dosage for supplementation, and (B) to access wether complications of anticoagulation treatment will diminish by suppletion of vitamin K.

Published: 11-12-2007
Last updated: 09-05-2024

VIKS-2A:To determine the optimal dosage of vitamin K for supplementation to obtain a stable anticoagulation effect.VIKS-2B:To determine whether supplementation with the found optimal dosage of vitamin K from study VIKS-2A will decrease the number of...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON30852

Source
ToetsingOnline

Brief title
VIKS-2A / VIKS-2B

Condition

- Other condition
- Coagulopathies and bleeding diatheses (excl thrombocytopenic)

Synonym
Bleeding, Thrombosis

Health condition

Complicaties van behandeling

Research involving
Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum
Source(s) of monetary or material Support: Nederlandse Hartstichting.

Intervention

Keyword: Complications, Supplementation, Vitamin K, Vitamin K antagonists

Outcome measures

Primary outcome

VIKS-2A:

The clinical endpoint of the studies is the stability of

anticoagulationtherapy (expressed as the time in therapeutic zone) linked to

the dosage of vitamin K.

VIKS-2B:

The clinical endpoint of the studies is the number of complications of

anticoagulationtherapy per 100 patientyears, linked to the dosage of vitamin K.

Secondary outcome

VIKS-2A and VIKS-2B:

The effect of polymorphisms in CYP2C9 and VKORC1 on the sensitivity for VKA and

supplementation of vitamin K.

Study description

Background summary

Anticoagulationtherapy with vitamin K antagonists (VKA) is indicated to prevent and treat venous and arterial thrombo-embolisms and are among the most frequent prescribed medicines in the Netherlands.
There are important disadvantages of treatment with VKA: its narrow therapeutic window and a strong variability in the sensitivity for VKA.
An important cause for the variability in sensitivity for VKA is the intake of vitamin K (Franco et al, 2004; Cushman et al, 2001; Khan et al, 2004; Sconce et al, 2005; Schurgers et al, 2004; Rombouts et al, 2007).
One other possible cause is thought to be polymorphisms in the enzymes CYP2C9 and VKORC1 (limdi et al, 2007).

Study objective

VIKS-2A:
To determine the optimal dosage of vitamin K for supplementation to obtain a stable anticoagulation effect.
VIKS-2B:
To determine whether supplementation with the found optimal dosage of vitamin K from study VIKS-2A will decrease the number of complications of treatment wit VKA.
To determine the possible influence of polymorphisms in CYP2C9 and VKORC1 on the sensitivity for VKA and the suppletion of vitamin K.

Study design

Randomised doubleblind placebo controlled trial.

Intervention

VIKS-2A:
400 patients who will start with anticoagulationtherapy with VKA will be randomised over 4 equal groups: 3 groups that will receive vitamin K in 3 different dosages (100 microgr., 150 microgr. and 200 microgr.) and 1 group that will receive a placebo. The estimated duration of the studies is 6 to 12 months.
VIKS-2B:
2200 patients will be randomised over 2 equal groups: 1 group that will receive vitamin K in the found optimal dosage from VIKS-2A and 1 group that will receive a placebo. The estimated duration of the studies is 24 to 36 months.

Study burden and risks

At the start of the studies some blood will be taken from the patients in addition to the blood used for INR monitoring. This additional blood will be

used for genetic research into the enzymes CYP2C9 and VKORC1. These bloodsamples will be completely anonymous.
In studies VIKS-2A patients will have an appointment with the researcher after 8 to 12 weeks after the start of the studies to assess compliance and the wish to further participate in the studies. In studies VIKS-2B patients will have an appointment 2 or 3 times during the studies.
In studies VIKS-2B the patients vitamin K status need to be assessed as well. At this moment it*s not sure whether we do this by additional bloodtesting or by questionnaire. In case of a bloodtest this sample will also be taken during the regular sample taking. In case of a questionnaire there will be a slightly higher burden for the patient but as little as possible.
The risks in both studies are minimal. No side-effects for vitamin K are known. The dosage for VKA will probably be increased slightly, what, in theory, could increase the number of side-effects from VKA. This, however, is not the case for the most important side-effect of VKA: bleeding. In earlier studies in our department there were no indications for an increase of side-effects from VKA (Rombouts et al, 2007).
Since theirs is virtually no risk and little burden for our patients and a potential great benefit from our studies it seems justified to proceed with these studies.

Contacts

Public
Leids Universitair Medisch Centrum

Postbus 9600
2300 RC Leiden
Nederland
Scientific
Leids Universitair Medisch Centrum

Postbus 9600
2300 RC Leiden
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

1. Start treatment with vitamin K antagonists less then 4 weeks before inclusion.
2. Treatment with vitamin K antagonists for a minimal period of 6 months, with the therapeutic range of INR between 2.5 and 3.5.
3. Age between 18 and 85 years.
4. Measurement of the INR by the Thrombosis Service Leiden.
5. Informed consent.

Exclusion criteria

1. Treatment for liver failure.
2. Dialysys, both peritoneal as hemodialysys.
3. Pregnancy or wish to get pregnant, lactational period.
4. Known to have a chronic condition with a life expectancy of less than 6 months.
5. An expected interruption of treatment with oral anticoagulants for one week or longer.
6. Participation of the self management protocol.

Study design

Design

Study phase:	4
Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo
Primary purpose:	Prevention

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-06-2008
Enrollment:	2600
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	Vitamin K1
Generic name:	Phylloquinone
Registration:	Yes - NL intended use

Ethics review

Approved WMO

Date:	11-12-2007
Application type:	First submission
Review commission:	METC Leids Universitair Medisch Centrum (Leiden)

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	EUCTR2007-004578-15-NL

Register	ID
CCMO	NL19387.058.07