

# Cardiovascular Risk Intervention Study to Optimise Treatment in Patients with Hypertension

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<b>Registration date</b> 12/06/2006	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 08/05/2015	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**

## Study information

### Scientific Title

Cardiovascular Risk Intervention Study to Optimise Treatment in Patients with Hypertension

### Acronym

CRISTOPH

### Study objectives

As of 21/07/2008, the following amendments have been made to this ISRCTN record:

1. The end date of this trial was updated from 31/01/2007 to 31/12/2007. This reflects a delay to this trial due to several factors, mostly related to data collection
2. An amendment has been made to the Primary outcome measures field, as some errors were found in the information provided at time of registration

### Hypothesis:

Absolute cardiovascular risk (CVR), calculated using the SCORE-formula (Conroy et al., European Heart Journal 2003; <http://www.ncbi.nlm.nih.gov/pubmed/12788299>), can be significantly decreased in patients with high CVR by means of a composed intervention, targeted at general practitioners, of posting specifically adapted guidelines and two educational outreach peer-visits (group A), compared with posting adapted guidelines alone (group B = control).

An embedded qualitative study (semi-structured interviews with general practitioners) focuses on the main reasons for physicians' non-compliance with guidelines in the German context.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Ethics Committee of the Medical Faculty, University of Düsseldorf, 02/12/2005, ref: 2715

### Study design

Cluster-randomised controlled two-arm interventional study

### Primary study design

Interventional

### Secondary study design

Cluster randomised trial

### Study setting(s)

GP practice

### Study type(s)

Treatment

### Participant information sheet

## **Health condition(s) or problem(s) studied**

Increased cardiovascular risk

## **Interventions**

This is a cluster-randomised controlled two-arm interventional study with an embedded qualitative study. A cluster is composed of the recruited patients of one GP surgery; in group practices, all GP partners are allocated to the same study arm.

Both groups A and B (the control arm) will receive specifically composed information by post, based on current guidelines on cardiovascular disease prevention.

In addition, group A will receive two educational outreach peer-visits, directed at a deeper appreciation of the concept of treating patients according to individual absolute cardiovascular risk.

## **Intervention Type**

Other

## **Phase**

Not Specified

## **Primary outcome measure**

Current primary outcome measures as of 21/07/2008:

Primary endpoint is the mean absolute cardiovascular risk (CVR) of the subset of patients with high CVR (but no manifest cardiovascular disease) in each randomisation group (A versus B). The composite endpoint 'cardiovascular risk' is calculated from several risk factors by using a slightly modified version of the SCORE formula published by Conroy et al. (European Heart Journal 2003).

Previous primary outcome measures:

Primary endpoint is the mean absolute cardiovascular risk (CVR) of the patients in each group. The composed endpoint cardiovascular risk is calculated from the single given risk factors by using a slightly modified version of the SCORE-formula published by Conroy et al. (European Heart Journal 2003).

For the qualitative study: adapting existing guideline tools for physicians' compliance.

## **Secondary outcome measures**

1. The intervention's effect on blood pressure, cholesterol levels, smoking rates, and physical exercise in patients with:

- a. A history of manifested CV disease
- b. High CVR (defined by SCORE >4%)
- c. Low CVR (SCORE <5%)

2. The intervention's effect on drug treatment, judged by current guidelines, in patients with:

- a. A history of manifested CV disease
- b. High CVR
- c. Low CVR

3. A possible relationship of CVR with:

- a. Patient gender
- b. Patients' socioeconomic status
- c. The quality of the doctor-patient-relationship

4. The intervention's effect on:

- a. The accuracy with which doctors and patients estimate individual CVR
- b. The degree to which the patient is being involved in the decision making process

**Overall study start date**

01/03/2006

**Completion date**

31/12/2007

## **Eligibility**

### **Key inclusion criteria**

102 general practitioners will be recruited to participate in the study, and will be randomised into groups A or B. Each GP recruits a consecutive sample of 40 patients meeting the following criteria:

- 1. Aged 40-75 years
- 2. Known diagnosis of hypertension for >6 months
- 3. Life expectancy not <1 year
- 4. Fluency in the German language

The sample for the qualitative part covers 30 general practitioners not belonging to the quantitative study sample within the same region before the study and 15 general practitioners within the RCT-sample after the quantitative study.

### **Participant type(s)**

Patient

### **Age group**

Adult

### **Sex**

Both

### **Target number of participants**

102 GPs, 4080 patients; interviews: 30 additional GPs

### **Key exclusion criteria**

Exclusion criteria for GPs are:

- 1. Less than 500 cases per three months (quarter)
- 2. Atypical patients or practice

Exclusion criteria for patients: see inclusion criteria

### **Date of first enrolment**

01/03/2006

**Date of final enrolment**

31/12/2007

## **Locations**

**Countries of recruitment**

Germany

**Study participating centre**

**Abteilung für Allgemeinmedizin**

Düsseldorf

Germany

40225

## **Sponsor information**

**Organisation**

German Federal Ministry of Education and Research (BMBF) and the Federation of Sickness Fund Boards

**Sponsor details**

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**Sponsor type**

Government

**Website**

<http://www.pt-dlr.de>

**ROR**

<https://ror.org/04pz7b180>

## **Funder(s)**

**Funder type**

Government

### **Funder Name**

German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung [BMBF])

### **Funder Name**

Federation of Sickness Fund Boards (Spitzenverbände der Gesetzlichen Krankenkassen)

## **Results and Publications**

### **Publication and dissemination plan**

Not provided at time of registration

### **Intention to publish date**

### **Individual participant data (IPD) sharing plan**

### **IPD sharing plan summary**

Not provided at time of registration

### **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol article</a>	protocol	10/06/2008		Yes	No
<a href="#">Results article</a>	results	07/05/2015		Yes	No