P2y12-receptOr antagonist therapy in patients with coronary artery disease undergoing Percutaneous coronary intervention using an genotype-guided treatment STRATEGY

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To evaluate if an individualized antithrombotic P2Y12-inhibitor monotherapy in comparison to an individualized DAPT treatment is superior regarding bleeding events and non-inferior regarding ischemic events in patient with CCS after PCI.

Ethical review	Approved WMO
Status	Will not start
Health condition type	Coronary artery disorders
Study type	Interventional

Summary

ID

NL-OMON52565

Source
ToetsingOnline

Brief title
POPular Strategy

Condition

- Coronary artery disorders

Synonym
chronic coronary syndrome, coronary artery desisease, stable coronary artery disease

Research involving
Human

Sponsors and support

Primary sponsor: Sint Antonius Ziekenhuis
Source(s) of monetary or material Support: St. Antonius (plaatjesgroep);er zal wel een aanvraag bij het St. Antonius onderzoeksfonds plaatsvinden en bij ZonMW.

Intervention

Keyword: clopidogrel, monotherapy, P2Y12 inhibitor, ticagrelor

Outcome measures

Primary outcome

• The primary safety endpoint is the incidence of minor, moderate or severe bleeding (Bleeding Academic Research Consortium 2, 3 and 5)

• Primary efficacy endpoint is the incidence of a composite of cardiovascular mortality, myocardial infarction, stent thrombosis and stroke.

Secondary outcome

• Individual components and combinations of the primary and secondary end points.

• To evaluate the net clinical benefit (a composite of all-cause death, MI, stroke and major bleeding defined as BARC type 3 or 5 bleeding at 12 months)

• Angina frequency and stability, physical limitations, treatment satisfaction and quality-of-life measured by SF-12 and SAQ

• Direct and indirect costs defined as: costs of medication, bleeding events needing medical intervention, re-admission due to bleeding or thrombotic event, prolonged admission time due to ischemic or bleeding events, costs of genotyping

Study description

Background summary

Novel antithrombotic strategies, such as genotype-guided p2y12-inhibitor selection and ticagrelor monotherapy, instead of routine dual antithrombotic therapy, have recently been investigated in major randomized controlled trials. It is unclear whether these therapies can also be applied in all comer patients undergoing elective percutaneous coronary (PCI) with stenting.

Study objective

To evaluate if an individualized antithrombotic P2Y12-inhibitor monotherapy in comparison to an individualized DAPT treatment is superior regarding bleeding events and non-inferior regarding ischemic events in patient with CCS after PCI.

Study design

A prospective, monocentre, randomized controlled open label trial

Intervention

All patients will be randomized and will undergo CYP2C19 genotyping using a pharyngeal swab and/or a blood sample.
After CYP2C19 genotyping, patients will be divided into two groups:

Group 1: P2Y12-inhibitor monotherapy.
Patients without a LOF-allel will receive clopidogrel monotherapy (tablet of 75mg once daily) for 12 months. Patients with a LOF-allel will receive ticagrelor (tablet of 90mg twice daily) or prasugrel (tablet of 10mg once daily) for 12 months.
Group 2: Dual antiplatelet therapy (DAPT).
Patients without a LOF-allel will receive clopidogrel monotherapy (tablet of 75mg once daily) for 6 months and acetylsalicylic acid (tablet 80mg one daily) for 12 months.
Patients with a LOF-allel will receive ticagrelor (90mg twice daily) or prasugrel (tablet of 10mg once daily) for 6 months and acetylsalicylic acid (tablet 80mg once daily) for 12 months.

The antithrombotic regimen after 12 months will be at the discretion of the treating cardiologist.

Patients refusing to participate and with no contra-indications, will be asked for informed consent to use medical relevant data from electronic patient data

systems from hospitals and/or general practitioners, in order to create a third group of patients receiving standard of care. These patients will not be subjected to any intervention performed in the trial, nor will they be questioned. This data will be observational and will only be used for the descriptive statistics.

All study participants will receive short-form 12 (SF-12) and the the cardiac disease specific Seattle Angina Questionnaire (SAQ), online and per postal service, directly after randomization, 4 weeks after PCI, and 365 days after PCI.

Study burden and risks

At the time of PCI, genotyping (genotyping will occur through Spartan Rx CYP2C19 device, only when inconclusive, the blood sample will be used for genotyping) will be done. Blood withdrawal from 60 consecutive patients out of each group will occur directly after PCI and at 3 months post PCI for platelet function research. (See study design and sub study addendum). All blood samples are drawn from venipuncture.

Contacts

Public
Sint Antonius Ziekenhuis

Koekoekslaan 100
Nieuwegein 3435CM
NL
Scientific
Sint Antonius Ziekenhuis

Koekoekslaan 100
Nieuwegein 3435CM
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

In order to be eligible to participate in this study, a subject must meet all of the following criteria:
• Patients >= 18 years of age
• Patients with CCS undergoing successful elective PCI
• Patients with written informed consent as approved by the ethics committee

Exclusion criteria

A potential subject who meets any of the following criteria will be excluded from participation in this study:
• Contraindication to aspirin
• Contraindication to prasugrel, ticagrelor or clopidogrel
• Under the age of 18 years
• Planned cardiac valve surgery
• Need for chronic oral anticoagulation
• PCI when admitted for ACS
• Life expectancy < 1 year
• Unable or unwilling to provide informed consent
• Pregnancy
• Suboptimal result of stenting as defined by the operator
• Any other condition putting patient at excessive risk for bleeding with ticagrelor
• Treatment with a strong CYP3A4 inhibitor or inducer
• Treatment with a strong CYP2C19 inhibitor or inducer
• History of definite stent thrombosis

Study design

Design

Study phase: 4

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Will not start
Enrollment:	3526
Type:	Anticipated

Medical products/devices used

Product type:	Medicine
Brand name:	Aspirin
Generic name:	acetylsalicyl acid
Registration:	Yes - NL intended use
Product type:	Medicine
Brand name:	Brilique
Generic name:	Ticagrelor
Registration:	Yes - NL intended use
Product type:	Medicine
Brand name:	Plavix
Generic name:	Clopidogrel
Registration:	Yes - NL intended use

Ethics review

Approved WMO

Date:	03-10-2020
Application type:	First submission
Review commission:	MEC-U: Medical Research Ethics Committees United (Nieuwegein)

Approved WMO

Date:	04-03-2022
Application type:	Amendment
Review commission:	MEC-U: Medical Research Ethics Committees United (Nieuwegein)

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	EUCTR2020-001666-11-NL
CCMO	NL73724.100.20