



# SirPAD

**The largest randomised trial with a sirolimus-coated balloon for peripheral arterial disease**

**Stefano Barco, MD, PhD, FESC**

Clinic of Angiology, University Hospital Zurich – Switzerland  
Staff member and head of the research group „Vascular Medicine“

[stefano.barco@usz.ch](mailto:stefano.barco@usz.ch)



# Disclosure

Speaker's name: Stefano Barco

I have the following potential conflicts of interest to report:

- Consulting: Boston Scientific, Bayer Healthcare
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s): Daiichi Sankyo, Bayer (travel costs); Sanofi (institutional grant)
-

# Rationale of the SirPAD RCT

Registration: NCT04238546



- Characteristics of product (sirolimus-coated)
- Trials with surrogate outcomes and many exclusion criteria
- Prior PCI experience
- Unclear impact of paclitaxel-balloons on long-term survival



# Key eligibility criteria

- **Endovascular angioplasty needed for infrainguinal PAD (all-comer study)**
- No participation in other studies

**Target lesion:** the main lesion considered responsible for signs and symptoms; **angiographic criteria:**

- 1) stenosis (lumen compromise  $\geq 50\%$ ) in at least a single plane of the **femoro-popliteal** arterial segment or a femoropopliteal bypass, or
- 2) stenosis (lumen compromise  $\geq 50\%$ ) of the **below-the-knee arterial segment** or a below the knee bypass



# Study groups

## **INTERVENTION**

Magic Touch PTA sirolimus-coated balloon

## **COMPARATOR**

Any available CE-certified uncoated balloon catheter approved for PAD

**Randomization ratio 1:1**



# Primary efficacy outcome

A composite of two **major adverse limb events (MALE)**

- (i) **unplanned major amputation** of the target limb
- (ii) endovascular or surgical target lesion **revascularization for critical limb ischemia**

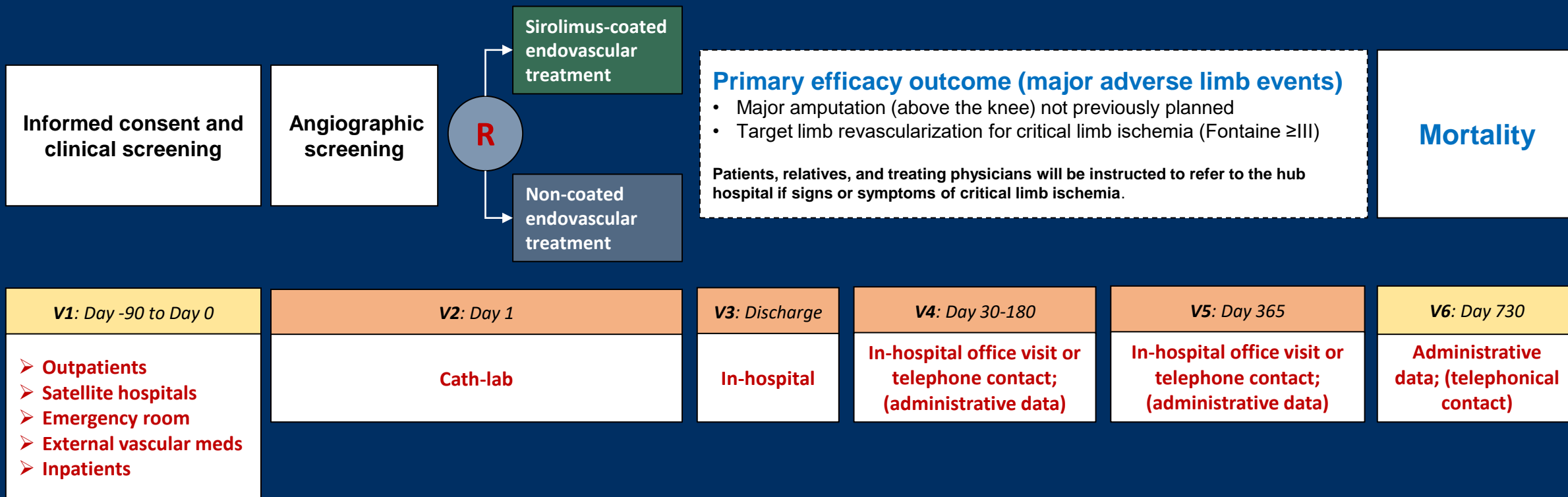
within one year of enrolment.

# Key secondary and safety outcomes



- Unplanned minor amputation at target limb
- Unplanned major amputation at target limb
- Any target lesion re-vascularization
- Target lesion re-vascularization for critical limb
- Death from all causes
- Death and MALE
- SAEs
- SADEs

# Study flow







# Hierarchical analysis

## Non-inferiority for the primary efficacy outcome within one year

if confirmed, pre-specified hierarchical analysis:

- a) **superiority for the composite of unplanned (major or minor) index-limb amputations and any target lesion re-vascularization** within one year ( $\alpha=2.5\%$  one-sided)
- b) **superiority for the primary efficacy outcome** within one year ( $\alpha=2.5\%$  one-sided)

**Populations:** intention-to-treat, as-treated, per-protocol.



# Sample size and status

**Assumption** 10% event rate (MALE) within one year  
**Non-inferiority margin** 5% (absolute risk difference)

**Sample size** 1200 patients  
(566 patients per treatment group plus drop-outs)

**Status:** n=77 patients enrolled in 2.5 months (despite COVID-19).  
Interim analysis after 600 patients.

*Publication of the study design paper pending.*

# Many thanks for your attention



First patient randomized in the SirPAD study on 03. Nov 2020

## Principal investigators

Nils Kucher  
Stefano Barco

## SirPAD medical personnel

Tim Sebastian  
Davide Voci  
Alexandru Grigorean  
Robert Kreuzpointner  
Mario Münger  
Fabian Johner  
Evy Micieli  
Georgios Vatsakis  
Erik Holy  
Julia Wagner  
Natalie Anasiewicz  
Thomas Oleg Meier  
Fodè Bangaly Oularè

## Catheter labor

Chrystian Brzoza  
Cinzia Richichi  
Matthias Maierl  
Miroslava Satkova

## Study coordination

Rebecca Spescha  
Claudia Leeger  
Stephanie Roth  
Eliane Probst