

1 **Supplemental information 1. In- and exclusion criteria of the On-Site Computed**
2 **Tomography Versus Angiography Alone to Guide Coronary Stent Implantation: A**
3 **Prospective Randomized Study (AR-PCI trial) (1).**

4 Eligible patients had at least 1 target lesion located in a native coronary artery with a visually
5 estimated reference vessel diameter of at least 2.25 mm without any upper limits.

6 Exclusion criteria entailed:

7 -Insufficient quality of coronary computed tomography angiography.

8 -Renal failure (estimated glomerular filtration rate <30 mL/min).

9 -Known allergy to contrast medium.

10 -Percutaneous coronary intervention (PCI) of the left main coronary.

11 -PCI of bifurcation lesions in which strategies other than a single crossover stent technique were
12 anticipated.

13 -PCI of in-stent restenosis.

14 -PCI of bypass grafts.

15 -PCI of chronically occluded vessels.

1 **Supplemental information 2. In- and exclusion criteria of The Prospective Comparison of**
2 **Coronary CT Angiography, SPECT, PET, and Hybrid Imaging for Diagnosis of Ischemic**
3 **Heart Disease Determined by Fractional Flow Reserve (PACIFIC-trial) (2).**

4 Inclusion criteria:

- 5 -First presentation to cardiologist with suspected coronary artery disease (CAD).
- 6 -No documented prior history of CAD.
- 7 -Intermediate pre-test likelihood of CAD as defined by Diamond and Forrester criteria.
- 8 -Referred for a clinically indicated invasive coronary angiography.
- 9 -Age >40 years.

10 Exclusion criteria:

- 11 -History of severe chronic obstructive pulmonary disease or chronic asthma.
- 12 -Pregnancy.
- 13 -Renal failure (estimated glomerular filtration rate <45 mL/min).
- 14 -Use of sildenafil or dipyridamole that cannot be terminated.
- 15 -Contra-indication for β -blockers.
- 16 -Known allergy for iodinated contrast.
- 17 -Concurrent or prior (within last 30 days) participation in other studies using investigational
- 18 drugs.
- 19 -Claustrophobia.
- 20 -Significant co-morbidities.
- 21 -Atrial fibrillation, second- or third-degree atrioventricular block.
- 22 -Tachycardia.
- 23 -Suspected acute myocardial infarction.
- 24 -Prior percutaneous coronary intervention or coronary artery bypass grafting.
- 25 -Heart failure.
- 26 -Left ventricular ejection fraction <50%.
- 27 -Documented cardiomyopathy.
- 28 -Previous radiation exposure during the diagnostic work-up.

1 -Subject intended for short-term medical treatment or invasive coronary intervention.

1 **Supplemental information 3. Patient, lesion, and invasive coronary angiography**
2 **characteristics prohibiting QFR analysis.**

3 Patient characteristics:

4 -Tachycardia with a frequency above 100 beats per minute.

5 -Systolic aortic resting blood pressure below 75mm Hg.

6 -Atrial fibrillation during invasive coronary angiography.

7 Lesion characteristics:

8 -Culprit lesions of patients with an acute coronary syndrome.

9 -Bifurcation lesions with a Medina 1-1-1 classification.

10 -Aorto-ostial artery stenosis or ostial right coronary artery stenosis.

11 -Distal left main lesions in combination with a proximal circumflex lesion.

12 -Vessels with retrograde filling.

13 -Bypass grafts.

14 -Grafted coronary arteries.

15 -Myocardial bridging.

16 Invasive coronary angiography characteristics:

17 -Inadequate contrast injection leading to poor contrast opacification of the vessel.

18 -Too much overlap of other vessels with the lesion or areas just around the lesion in the target
19 vessel in one or both of the angiographic acquisitions.

20 -Too much foreshortening of the target coronary artery in one or both angiographic acquisitions.

1 **Reference list**

- 2 1. Opolski MP, Schumacher SP, Verouden NJW, van Diemen PA, Borucki BA, Sprengers
3 R, et al. On-Site Computed Tomography Versus Angiography Alone to Guide Coronary Stent
4 Implantation: A Prospective Randomized Study. *J Invasive Cardiol.* 2020;32(11):E268-e76.
- 5 2. Danad I, Raijmakers PG, Driessen RS, Leipsic J, Raju R, Naoum C, et al. Comparison
6 of Coronary CT Angiography, SPECT, PET, and Hybrid Imaging for Diagnosis of Ischemic
7 Heart Disease Determined by Fractional Flow Reserve. *Jama Cardiology.* 2017;2(10):1100-7.