

# ORBITA-2 Physiology Stratified Analysis Supplemental Material

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## **Trial Conduct**

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Table S1: Trial Sites

| Centre   | Principal Investigator             | Coinvestigators   | Support team  | Patients enrolled |
|--|------------------------------------|---|---|-------------------|
| Hammersmith Hospital<br>(Imperial College Healthcare NHS Trust)                        | Dr Rasha Al-Lamee                  | Professor Darrel Francis<br>Dr Sayan Sen<br>Dr Sukhjinder Nijjer<br>Dr Punit Ramrakha<br>Dr Raffi Kaprielian<br>Dr Iqbal Malik<br>Dr Amarjit Sethi<br>Dr Masood Khan<br>Dr Ramzi Khamis<br>Dr Rodney Foale<br>Dr Christopher Rajkumar<br>Dr Michael Foley<br>Dr Fiyaz Ahmed-Jushuf<br>Dr Henry Seligman | Denise Rouse<br>Hawa Amadu  | 163               |
| Essex Cardiothoracic Centre<br>(Mid and South Essex NHS Foundation Trust)              | Dr Thomas Keeble                   | Dr John Davies<br>Dr Gerald Clesham<br>Dr Reto Gamma<br>Dr Jason Dungu<br>Dr Kare Tang<br>Dr Shah Modh Nazri<br>Dr Alamgir Kabir  | Raiji Koothoor<br>Michael Galinato<br>Craig Robertson<br>Joanne Turton<br>Ellie Gudde<br>Joanne Hall<br>Karen Lyons | 70                |
| Royal Bournemouth Hospital<br>(University Hospitals of Dorset NHS Foundation Trust)    | Dr Peter O'Kane                    | Dr Jehangir Din<br>Dr Jonathan Hinton   | Stephanie Horler<br>Annette Fraine<br>Tanith Changuion  | 55                |
| Queen Alexandra Hospital<br>(Portsmouth Hospitals University NHS Trust)                | Dr Peter Haworth                   | -   | Charlotte Turner  | 32                |
| St George's Hospital<br>(St George's University Hospitals NHS Foundation Trust)        | Professor James Spratt             | Dr Rupert Williams<br>Dr Claudia Cosgrove<br>Dr Pitt Lim  | Stavroula Kazagli<br>Giovanna Bonato  | 25                |
| Worcestershire Royal Hospital<br>(Worcestershire Acute Hospitals NHS Trust)            | Dr Helen Routledge                 | Dr Lal Mughal<br>Dr Jasper Trevelyan  | Angela Doughty  | 23                |
| Royal Free Hospital<br>(Royal Free London NHS Foundation Trust)                        | Dr Tushar Kotecha                  | -   | Nina Arnold<br>Felicity Picton<br>Tarik Mustafa<br>Leoni Bryan<br>Alejandra Perez Rodriguez<br>Valene Cadden        | 21                |
| Southampton General Hospital<br>(University Hospital Southampton NHS Foundation Trust) | Professor Nick Curzen              | Dr James Wilkinson<br>Dr Alison Calver<br>Dr Rohit Sirohi<br>Dr John Rawlins<br>Dr Richard Jabbour  | Karen Banks<br>Zoe Nicholas   | 15                |
| Royal Berkshire Hospital<br>(Royal Berkshire NHS Foundation Trust)                     | Associate Professor Neil Ruparelia | -   | Mark Brunton  | 11                |
| Salisbury District Hospital<br>(Salisbury NHS Foundation Trust)                        | Dr Manas Sinha                     | -   | Fiona Trim  | 10                |
| University Hospital of Wales<br>(Cardiff and Vale University Health Board)             | Professor Tim Kinnaird             | -   | Elizabeth Hodges<br>Elizabeth Thompson  | 7                 |



|  |                          |   |                                   |   |
|--|--------------------------|---|-----------------------------------|---|
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| Birmingham City Hospital<br>(Sandwell and West<br>Birmingham Hospitals NHS<br>Trust) | Dr Fairoz Abdul          | - | Sibet Joseph                      | 1 |
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## Supplementary Methods

### Inclusion and Exclusion Criteria

#### Inclusion

ORBITA-2 enrolled participants who were deemed eligible for PCI by their clinical teams and met all 3 of the following criteria:

1. Angina or angina-equivalent symptoms
2. Anatomical evidence of a severe coronary stenosis in at least 1 vessel, either:
  - Invasive diagnostic coronary angiography indicating  $\geq 70\%$  stenosis
  - Computerised tomography coronary angiography (CTCA) indicating severe stenosis
3. Evidence of ischaemia, on any of the following tests:
  - Dobutamine stress echocardiography
  - Stress perfusion cardiac magnetic resonance imaging (MRI)
  - Nuclear medicine myocardial perfusion scan
  - Invasive pressure wire assessment suggestive of ischaemia, as judged by the interventional cardiologist, at the time of clinical or research coronary angiography

#### Exclusion

1. Age younger than 18
2. Acute coronary event in last 6 months
3. Previous coronary artery bypass graft surgery
4. Significant left main stem coronary disease
5. Chronic total occlusion in the target vessel
6. Contraindication to percutaneous coronary intervention or drug-eluting stent implantation
7. Contraindication to antiplatelet therapy
8. Severe valvular disease
9. Severe left ventricular systolic impairment (ejection fraction  $\leq 35\%$ )
10. Severe respiratory disease (requiring long term oxygen or symptoms deemed by investigator to be more likely attributable to respiratory disease)
11. Life expectancy less than 2 years, pregnancy, inability to consent

## Derivation of the ordinal scale primary endpoint

The primary endpoint is the angina symptom score measured daily. This is an ordinal clinical outcome scale of angina health status, ranging from 0 to 79. The daily score is derived from the number of episodes of angina reported by a patient on a given day via the smartphone application, the units of antianginal medication prescribed on that day, and high-level category overrides for unblinding due to intolerable angina, acute coronary syndrome, and death. Supplementary Table S2 reports the composition of each level of the primary endpoint.

The total daily dosage of commonly prescribed antianginal medications considered to be 1 unit is reported in Supplementary Table S3. Full details of the primary endpoint have been published previously. (15)

Supplementary Table S2: Derivation of the ordinal scale primary endpoint

| <b>Grade</b> | <b>Number of angina episodes in a day</b> | <b>Units of antianginal medication</b> | <b>Unblinding due to intolerable angina</b> | <b>Acute coronary syndrome</b> | <b>Death</b> |
|--------------|---|--|---|--------------------------------|--------------|
| 0            | 0   | 0                                      | No  | No                             | No           |
| 1            | 1   | 0                                      | No  | No                             | No           |
| 2            | 2   | 0                                      | No  | No                             | No           |
| 3            | 3   | 0                                      | No  | No                             | No           |
| 4            | 4   | 0                                      | No  | No                             | No           |
| 5            | 5   | 0                                      | No  | No                             | No           |
| 6            | 6 or more                                 | 0                                      | No  | No                             | No           |
| 7            | 0   | 1                                      | No  | No                             | No           |
| 8            | 1   | 1                                      | No  | No                             | No           |
| 9            | 2   | 1                                      | No  | No                             | No           |
| 10           | 3   | 1                                      | No  | No                             | No           |
| 11           | 4   | 1                                      | No  | No                             | No           |
| 12           | 5   | 1                                      | No  | No                             | No           |
| 13           | 6 or more                                 | 1                                      | No  | No                             | No           |
| 14           | 0   | 2                                      | No  | No                             | No           |
| 15           | 1   | 2                                      | No  | No                             | No           |
| 16           | 2   | 2                                      | No  | No                             | No           |
| 17           | 3   | 2                                      | No  | No                             | No           |
| 18           | 4   | 2                                      | No  | No                             | No           |

|    |           |   |    |    |    |
|----|-----------|---|----|----|----|
| 19 | 5         | 2 | No | No | No |
| 20 | 6 or more | 2 | No | No | No |
| 21 | 0         | 3 | No | No | No |
| 22 | 1         | 3 | No | No | No |
| 23 | 2         | 3 | No | No | No |
| 24 | 3         | 3 | No | No | No |
| 25 | 4         | 3 | No | No | No |
| 26 | 5         | 3 | No | No | No |
| 27 | 6 or more | 3 | No | No | No |
| 28 | 0         | 4 | No | No | No |
| 29 | 1         | 4 | No | No | No |
| 30 | 2         | 4 | No | No | No |
| 31 | 3         | 4 | No | No | No |
| 32 | 4         | 4 | No | No | No |
| 33 | 5         | 4 | No | No | No |
| 34 | 6 or more | 4 | No | No | No |
| 35 | 0         | 5 | No | No | No |
| 36 | 1         | 5 | No | No | No |
| 37 | 2         | 5 | No | No | No |
| 38 | 3         | 5 | No | No | No |
| 39 | 4         | 5 | No | No | No |
| 40 | 5         | 5 | No | No | No |
| 41 | 6 or more | 5 | No | No | No |
| 42 | 0         | 6 | No | No | No |
| 43 | 1         | 6 | No | No | No |
| 44 | 2         | 6 | No | No | No |
| 45 | 3         | 6 | No | No | No |
| 46 | 4         | 6 | No | No | No |
| 47 | 5         | 6 | No | No | No |
| 48 | 6 or more | 6 | No | No | No |
| 49 | 0         | 7 | No | No | No |
| 50 | 1         | 7 | No | No | No |
| 51 | 2         | 7 | No | No | No |
| 52 | 3         | 7 | No | No | No |
| 53 | 4         | 7 | No | No | No |

|    |           |     |     |     |     |
|----|-----------|-----|-----|-----|-----|
| 54 | 5         | 7   | No  | No  | No  |
| 55 | 6 or more | 7   | No  | No  | No  |
| 56 | 0         | 8   | No  | No  | No  |
| 57 | 1         | 8   | No  | No  | No  |
| 58 | 2         | 8   | No  | No  | No  |
| 59 | 3         | 8   | No  | No  | No  |
| 60 | 4         | 8   | No  | No  | No  |
| 61 | 5         | 8   | No  | No  | No  |
| 62 | 6 or more | 8   | No  | No  | No  |
| 63 | 0         | 9   | No  | No  | No  |
| 64 | 1         | 9   | No  | No  | No  |
| 65 | 2         | 9   | No  | No  | No  |
| 66 | 3         | 9   | No  | No  | No  |
| 67 | 4         | 9   | No  | No  | No  |
| 68 | 5         | 9   | No  | No  | No  |
| 69 | 6 or more | 9   | No  | No  | No  |
| 70 | 0         | 10  | No  | No  | No  |
| 71 | 1         | 10  | No  | No  | No  |
| 72 | 2         | 10  | No  | No  | No  |
| 73 | 3         | 10  | No  | No  | No  |
| 74 | 4         | 10  | No  | No  | No  |
| 75 | 5         | 10  | No  | No  | No  |
| 76 | 6 or more | 10  | No  | No  | No  |
| 77 | N/A       | N/A | Yes | No  | No  |
| 78 | N/A       | N/A | N/A | Yes | No  |
| 79 | N/A       | N/A | N/A | N/A | Yes |



## Smartphone application description

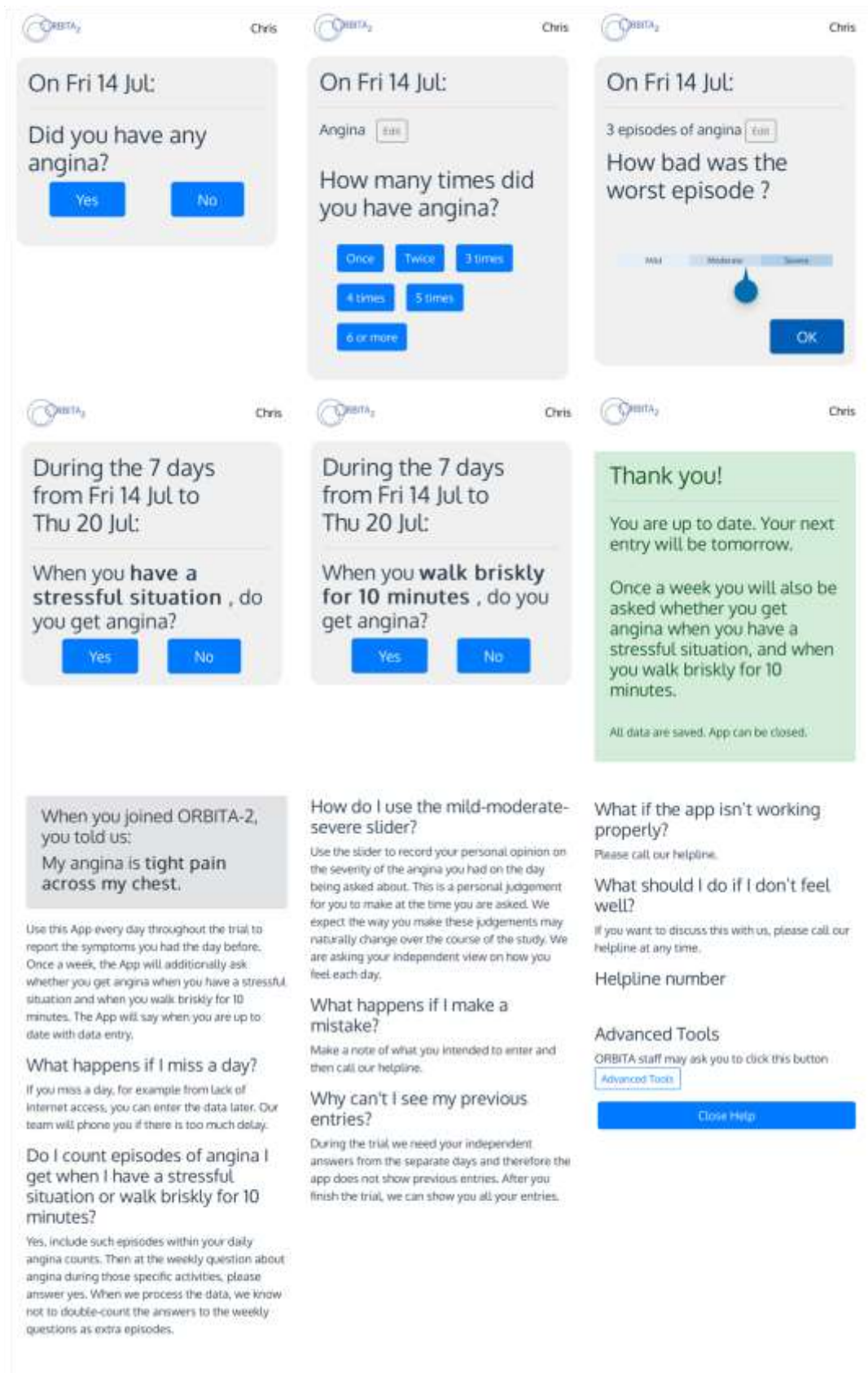
The ORBITA-2 symptom smartphone application requires the participant to define their angina in their own words and then report the number of episodes of this symptom for each day of the trial. It also requires the participant to report for each week if they experienced angina with 2 activities that were set by the participant at enrolment as triggering their symptoms.

The symptom application approach permits not only a quantitative assessment of the time-course of angina evolution during the blinded period, but also a time-to-event analysis of occurrence of first angina episode.

Full details regarding development and use of the application have previously published. (16)

Supplementary figure S1 contains screenshots from the ORBITA-2 symptom application.

Supplementary Figure S1: Screenshots from the ORBITA-2 smartphone application



Medication prescribing standard operating procedure for ORBITA-2.

This medication management SOP was developed in conjunction with the DSMB and has been previously published. (15)

All medication changes will be made by the research team with informed consent from the participant. Decisions will be discussed with primary care practitioners as necessary.

### **1. Participants not already taking the following medications will be started on:**

#### *Dual antiplatelet therapy:*

Standard loading doses will be used. Thereafter, aspirin 75 mg once daily with either clopidogrel 75 mg once daily or ticagrelor 90 mg twice daily or prasugrel 5-10 mg once daily, dose adjusted for age and weight, will be administered.

#### *Gastrointestinal (GI) protection:*

If at high risk of adverse GI effects (based on previous GI ulceration, age or concomitant medications that increase risk), participants will be started on a proton pump inhibitor, lansoprazole 30mg once daily, in accordance with NICE guidance on gastro- oesophageal reflux disease and dyspepsia in adults (CG184).

#### *Lipid-lowering medication:*

Atorvastatin 80 mg once daily will be preferred. If participants are already taking lower dose atorvastatin, simvastatin or pravastatin, this will be changed to atorvastatin 80 mg once daily. If taking rosuvastatin, this will be continued.

### **2. Other concomitant risk factor modifying medication**

#### *Antihypertensives:*

Antihypertensives with antianginal properties will be stopped. Participants will be given a blood pressure monitor and asked to perform home readings. Blood pressure control will be monitored by the research team, and if required, antihypertensives will be added. Agents without antianginal properties will be preferred.

### **3. Antianginal medication**

Regular antianginal medications will be stopped on enrolment. All participants will be given glyceryl trinitrate spray to be used when necessary. The need for starting regular antianginals will be determined by participant preference and patient-reported symptoms.

An individualised protocol for potential introduction of antianginal medications will be prepared for each participant by the research team. This protocol will be based on the participant's medical history, heart rate, blood pressure and any medication intolerance. The preferred sequence will be as follows: Bisoprolol, nifedipine MR, isosorbide mononitrate MR, nicorandil, ranolazine.

Antianginals started prior to randomisation will be stopped at randomisation and re-introduced according to participant preference and symptoms as described above, by the blinded research team.

Supplementary Table S3: Antianginal medication quantification

Common antianginal medications were classified as 1 unit based on the following total daily dosages:

| <b>Medication</b>         | <b>Total daily dose in mg that constitutes 1 unit</b> |
|---------------------------|---|
| Bisoprolol                | 5   |
| Atenolol                  | 25  |
| Amlodipine                | 2.5   |
| Nifedipine                | 20  |
| Isosorbide mononitrate MR | 30  |
| Isosorbide mononitrate SR | 25  |
| Diltiazem                 | 120   |
| Nicorandil                | 20  |
| Ranolazine                | 750   |
| Ivabradine                | 5   |

All antianginal medication changes, including cases when it was clinically necessary to prescribe an alternate medication to the above list, were reviewed by the blinded DSMB.

## Mechanisms of blinding and blinding index

Placebo optimisation strategies are reported in Supplementary Table S4

Supplementary Table S4: DITTO blinding framework

| <b>Domain</b>  | <b>Placebo optimisation strategy in ORBITA-2 Trial</b>   |
|--|--|
| <b>Sensory Manipulation</b>  | Patients received incremental doses of intravenous opiate and benzodiazepine to achieve a deep level of conscious sedation such that the patient was unresponsive to verbal or tactile stimulus, with maintained airway, ventilation and cardiovascular function. Physiological support with oxygenation and intravenous fluids was administered as necessary. Additional steps for sensory manipulation are detailed below.   |
| <i>Visual Masking</i>  | Positioning of the patient meant that the operator screen was not visible to them.   |
| <i>Verbal cues</i>   | Patients were not able to hear any verbal cues due to sedation and auditory isolation. Treatment allocation was communicated from the research team to the operator away from the patient to prevent inadvertent leakage of information. During placebo procedures, catheter laboratory staff mimicked language used during PCI procedures.  |
| <i>Auditory cues</i>   | Auditory isolation and sedation minimised any possible auditory difference between PCI and placebo procedures.   |
| <i>Physical cues</i>   | Before the procedure began, patients were counselled that they may experience some pain or shortness of breath during the procedure.   |
| <i>Visual cues</i>   | Although subjects were sedated, the operator screen was also positioned so that it was not visible to the patient.   |
| <i>Auditory masking</i>  | Patients wore over-the-ear headphones playing music throughout the invasive procedure to provide auditory isolation. These were worn prior to sedation and randomisation to prevent the patient hearing any communication between the clinical team.   |
| <i>Olfactory cues</i>  | No olfactory differences occurred between the treatment groups.  |
| <b>Use of devices to optimise blinding</b>                             | In both the PCI and placebo groups, the catheterisation laboratory table and equipment table were set up for PCI. All patients underwent angiography and pressure studies as part of the randomisation procedure; therefore patients all underwent vascular access using devices which did not differ between treatment groups.  |
| <b>Mimicked Timings</b>  | The invasive procedure consisted of angiography and pre-randomisation coronary physiological assessments. This meant that the procedure was significantly longer than a standard diagnostic coronary angiogram. Patients subsequently randomised to placebo remained on the catheter laboratory table for a minimum of 15 additional minutes following randomisation to mimic the time required for PCI. Benzodiazepines utilised for sedated had a secondary effect of amnesia regarding the procedural duration. |
| <b>Restricting interaction between blinded and unblinded personnel</b> | The blinded ward staff managed all patients as if they had undergone PCI for post procedural monitoring and care. The catheter laboratory staff involved in the procedure were not permitted any contact or communication with the patient after handover.   |
| <b>Omission of intervention details in trial paperwork</b>             | The unblinded fellow entered the treatment allocation to a pre-allocated page of the online case reporting form to which none of the other members of the research team had access.<br><br>A blinded fellow performed all the communication with the patient after discharge and performed all the follow-up tests. At the 12-   |

|  |  |
|--|--|
|  | <p>week point the blinded fellow contacted the unblinded fellow to confirm that all the assessments had been performed, only at that time did the unblinded fellow communicate the treatment allocation. From that time, the patient, the research team, and the clinical team became unblinded.</p>   |
| <i>Intervention not specified in patient notes</i>             | <p>A standardised protocol was used for the management of all documentation in the catheter laboratory in all centres. During the procedure, the nurses documented that the patient had participated in the ORBITA-2 trial. They did not document treatment allocation or any details of PCI in the medical notes. After the procedure, the handover between the catheter laboratory staff and ward nursing staff was carefully managed to include only location of access sites and medication given (which was identical for the two randomised arms, as all patients required heparin for physiological assessment and all patients received sedation). The handover did not indicate the treatment allocation and therefore did not indicate whether a PCI was performed. Additionally, during the handover process patients continued to have auditory isolation with music via headphones.</p> <p>The unblinded fellow prepared a standardised discharge letter at the end of the procedure which informed the reader that a blinded procedure had taken place, that this procedure was a coronary angiogram +/- PCI, that all medications should remain unchanged, including continuation of dual antiplatelet therapy, until trial follow-up was complete. The letter stated that they should receive standard post-angioplasty care until full details of the procedure were provided after unblinding at 12 weeks. This standardised letter was approved by the local ethics committee and was given to all patients and their general practitioners on discharge.</p> |
| <i>Patient billing delayed or withheld</i>                     | Not applicable in National Health Service (NHS) of United Kingdom  |
| <b>Unblinded operator delivering component of intervention</b> | The unblinded operator who performed the procedure was not permitted to attend to the patient after completion of the interventional procedure. This meant that the unblinded operator was not able to review or have any communication with the patient in recovery. Furthermore, the unblinded operator was not permitted to have any contact with the patient during the 12-week blinded follow-up period, until the patient had completed the trial and been unblinded to treatment allocation.  |

### Blinding index assessment

Our protocol assessed for accidental leakage of information to staff and to patients. The ward clinical staff were asked to guess the treatment allocation at the time of discharge from the blinded procedure. The blinded research staff were asked to guess the treatment allocation from all information available to them at the follow-up visit prior to speaking to the patient.

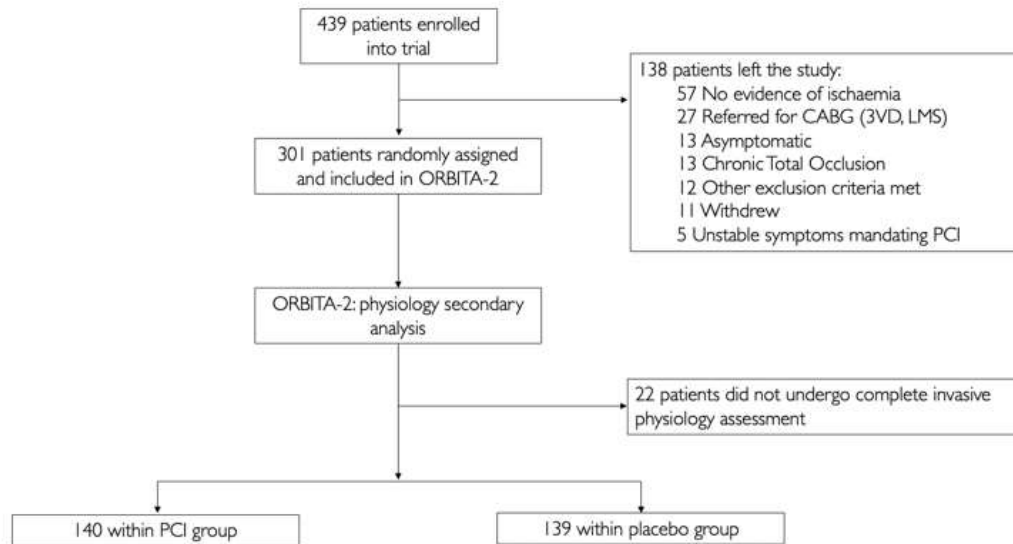
Patient blinding was assessed at the time of discharge from the randomised blinded procedure. For completeness the same question was also asked when they attended for follow-up but at that time they had the benefit of knowing the symptomatic responses and therefore this was no longer strictly a valid measure of blinding.

Patients and staff were asked to guess one of the following: (1) PCI, (2) Placebo, (3) Don't know. Patients and medical staff were asked to state the certainty of their answers grade 1-5 with 5 being most sure.

Statistical analysis of the blinding index was performed using published methods. (15)

## Supplementary Results

Supplementary Figure S2: Study consort diagram



Supplementary Table S5: Physiology group results table – effect of PCI compared to placebo

| <b>Primary Endpoint</b>                    |  |                |   |
|--|--|----------------|---|
|  | <b>Odds ratio of transitioning to a better clinical state each day with PCI vs placebo</b> |                | <b>Probability of benefit with PCI vs placebo</b> |
| Angina symptom score<br>Follow-up (Day 84) | OR 1.83, 95% CrI 1.21 to 2.21  |                | >99.9%  |
| <b>Components of primary endpoint</b>      |  |                |   |
| Angina episodes<br>Follow-up (Day 84)      | OR 1.84 , 95% CrI 1.51 to 2.24   |                | >99.9%  |
| <b>Secondary Endpoints</b>                 |  |                |   |
|  | <b>PCI</b>   | <b>Placebo</b> |   |
| <b>Treadmill exercise time</b>             |  |                |   |
| n  | 114  | 103            |   |

|  |                           |                           |        |
|--|---------------------------|---------------------------|--------|
| Baseline median (s)                          | 667                       |                           |        |
| Follow-up (s)                                | 726<br>(690 to 762)       | 680<br>(640 to 718)       |        |
| Increment (s)                                | 59<br>(23 to 95)          | 13<br>(-27 to 51)         |        |
| Benefit of PCI over placebo (s)              | 46<br>(6 to 88)           |                           | 98.6%  |
| <b>Canadian Cardiovascular Society class</b> |                           |                           |        |
| n  | 137                       | 135                       |        |
| Baseline median                              | 2                         |                           |        |
| Follow-up                                    | 0.97<br>(0.79 to 1.15)    | 1.66<br>(1.46 to 1.85)    |        |
| Increment                                    | -1.03<br>(1.21 to -0.85)  | -0.35<br>(-0.54 to -0.15) |        |
| Benefit of PCI over placebo                  | -0.69<br>(-0.92 to -0.44) |                           | >99.9% |
| <b>SAQ angina frequency</b>                  |                           |                           |        |
| n  | 136                       | 134                       |        |
| Baseline median                              | 60.0                      |                           |        |
| Follow-up                                    | 79.8<br>(75.6 to 83.9)    | 65.6<br>(60.5 to 70.3)    |        |
| Increment                                    | 19.8<br>(15.6 to 23.9)    | 5.6<br>(0.5 to 10.3)      |        |
| Benefit of PCI over placebo                  | 14.1<br>(9.1 to 19.4)     |                           | >99.9% |
| <b>SAQ physical limitation</b>               |                           |                           |        |
| n  | 129                       | 133                       |        |
| Baseline median                              | 66.7                      |                           |        |



|                                    |                        |                        |        |
|------------------------------------|------------------------|------------------------|--------|
| Follow-up                          | 83.1<br>(79.5 to 86.8) | 74.4<br>(70.3 to 78.2) |        |
| Increment                          | 16.5<br>(12.8 to 20.1) | 7.8<br>(3.6 to 11.6)   |        |
| Benefit of PCI over placebo        | 8.7<br>(4.6 to 12.8)   |                        | >99.9% |
| <b>SAQ angina stability</b>        |                        |                        |        |
| n                                  | 135                    | 134                    |        |
| Baseline median                    | 50.0                   |                        |        |
| Follow-up                          | 61.0<br>(56.4 to 65.8) | 55.9<br>(51.1 to 61.0) |        |
| Increment                          | 11.0<br>(6.4 to 15.8)  | 5.9<br>(1.1 to 11.0)   |        |
| Benefit of PCI over placebo        | 5.2<br>(-0.8 to 10.9)  |                        | 95.9%  |
| <b>SAQ quality of life</b>         |                        |                        |        |
| n                                  | 135                    | 134                    |        |
| Baseline median                    | 41.7                   |                        |        |
| Follow-up                          | 61.2<br>(56.8 to 65.7) | 51.3<br>(46.8 to 55.9) |        |
| Increment                          | 19.5<br>(15.1 to 24.0) | 9.6<br>(5.1 to 14.2)   |        |
| Benefit of PCI over placebo        | 9.9<br>(4.8 to 15.0)   |                        | >99.9% |
| <b>EQ-5D-5L descriptive system</b> |                        |                        |        |
| n                                  | 135                    | 133                    |        |
| Baseline median                    | 0.75                   |                        |        |
| Follow-up                          | 0.80<br>(0.77 to 0.83) | 0.73<br>(0.69 to 0.76) |        |

|                                      |                           |                          |        |
|--------------------------------------|---------------------------|--------------------------|--------|
| Increment                            | 0.05<br>(0.02 to 0.08)    | -0.02<br>(-0.05 to 0.01) |        |
| Benefit of PCI over placebo          | 0.07<br>(0.03 to 0.11)    |                          | >99.9% |
| <b>EQ-VAS</b>                        |                           |                          |        |
| n                                    | 136                       | 132                      |        |
| Baseline median                      | 70.0                      |                          |        |
| Follow-up                            | 72.7<br>(69.4 to 75.7)    | 66.8<br>(63.2 to 70.3)   |        |
| Increment                            | 2.7<br>(-0.6 to 5.7)      | -3.2<br>(-6.8 to 0.33)   |        |
| Benefit of PCI over placebo          | 5.9<br>(2.0 to 9.7)       |                          | 99.9%  |
| <b>Stress echocardiography score</b> |                           |                          |        |
| n                                    | 110                       | 103                      |        |
| Baseline median                      | 1.80                      |                          |        |
| Follow-up                            | 0.92<br>(0.68 to 1.20)    | 1.69<br>(1.30 to 2.14)   |        |
| Increment                            | -0.88<br>(-1.11 to -0.60) | -0.11<br>(-0.49 to 0.34) |        |
| Benefit of PCI over placebo          | -0.77<br>(-1.15 to -0.41) |                          | >99.9% |

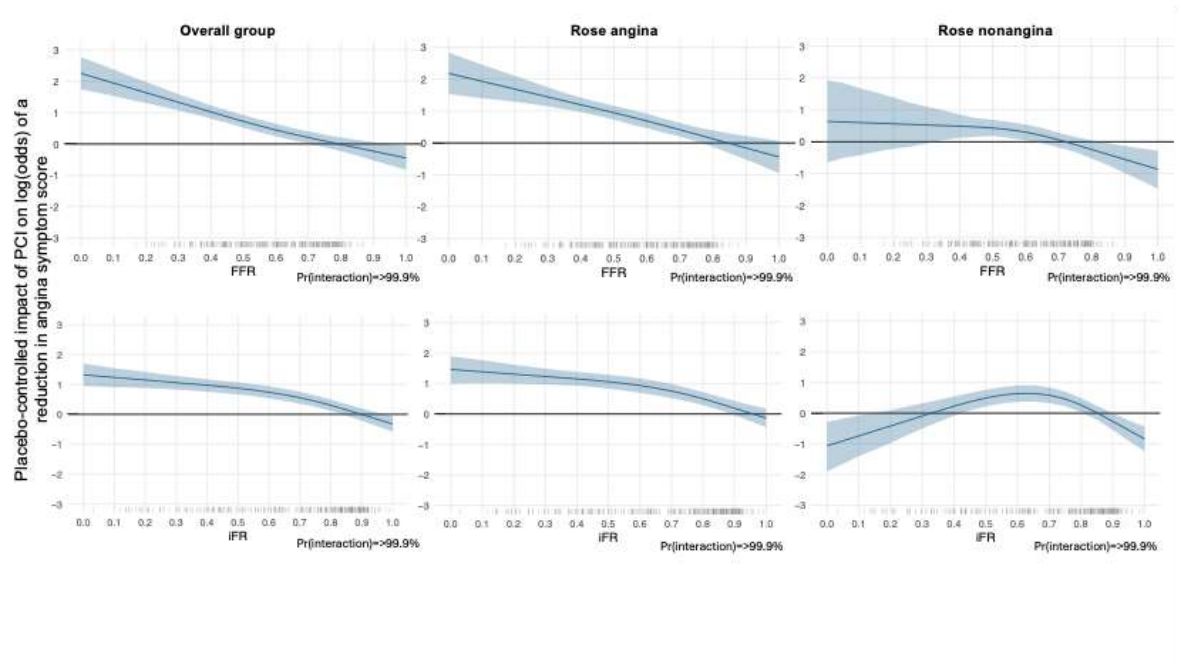
## Supplementary Results – FFR

Supplementary Table S6: FFR-stratified effect of PCI over placebo according to symptom characteristics

|  | FFR at the 25 <sup>th</sup> centile | FFR at the 75 <sup>th</sup> centile | Probability of greater benefit in a patient with a lower FFR (Pr) |
|--|-------------------------------------|-------------------------------------|---|
| FFR  | 0.46                                | 0.73                                |   |
| <b>Primary endpoint: angina symptom score at 12 weeks*</b> |                                     |                                     |   |
| <b>Rose angina</b>   |                                     |                                     |   |
| Odds of improvement  | 2.86<br>(2.29 to 3.57)              | 1.39<br>(1.11 to 1.73)              |   |
| Odds ratio   | 2.05<br>(1.74 to 2.41)              |                                     | >99.9%  |
| <b>Rose nonangina</b>                                      |                                     |                                     |   |
| Odds of improvement  | 1.58<br>(1.19 to 2.08)              | 0.97<br>(0.77 to 1.23)              |   |
| Odds ratio   | 1.63<br>(1.27 to 2.09)              |                                     | >99.9%  |
| <b>Daily angina episodes</b>                               |                                     |                                     |   |
| <b>Rose angina</b>   |                                     |                                     |   |
| Odds of improvement  | 3.42<br>(2.70 to 4.32)              | 1.65<br>(1.29 to 2.09)              |   |
| Odds ratio   | 2.07<br>(1.76 to 2.43)              |                                     | >99.9%  |

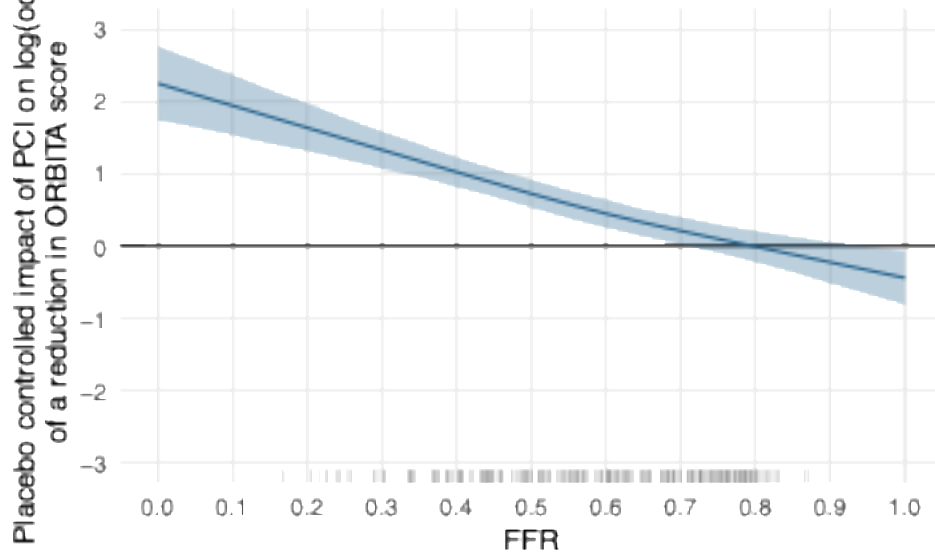
| <b>Rose nonangina</b> |                        |                        |        |
|-----------------------|------------------------|------------------------|--------|
| Odds of improvement   | 2.03<br>(1.52 to 2.75) | 1.03<br>(0.81 to 1.31) |        |
| Odds ratio            | 1.98<br>(1.55 to 2.57) |                        | >99.9% |

Supplementary results figure S3: FFR and iFR stratified effect of PCI on angina symptom score in the overall group, patients with Rose angina and patients with Rose nonangina

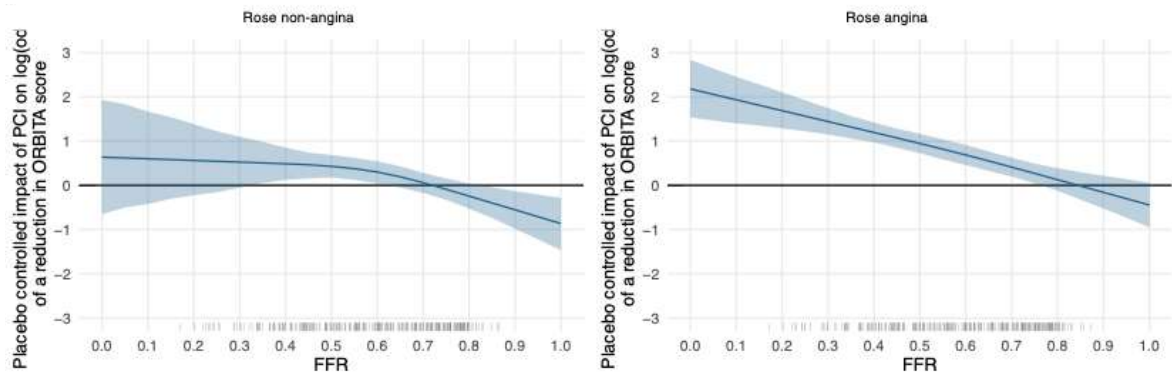


## Angina symptom score

Supplementary figure S4: result: angina symptom score

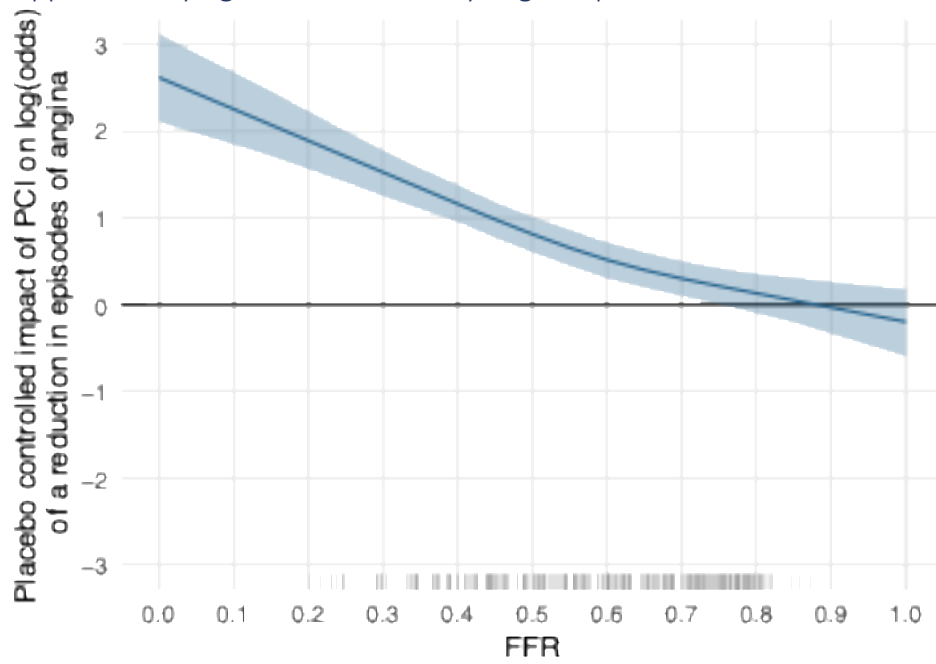


Supplementary figure S5: result: angina symptom score for Rose angina and Rose nonangina

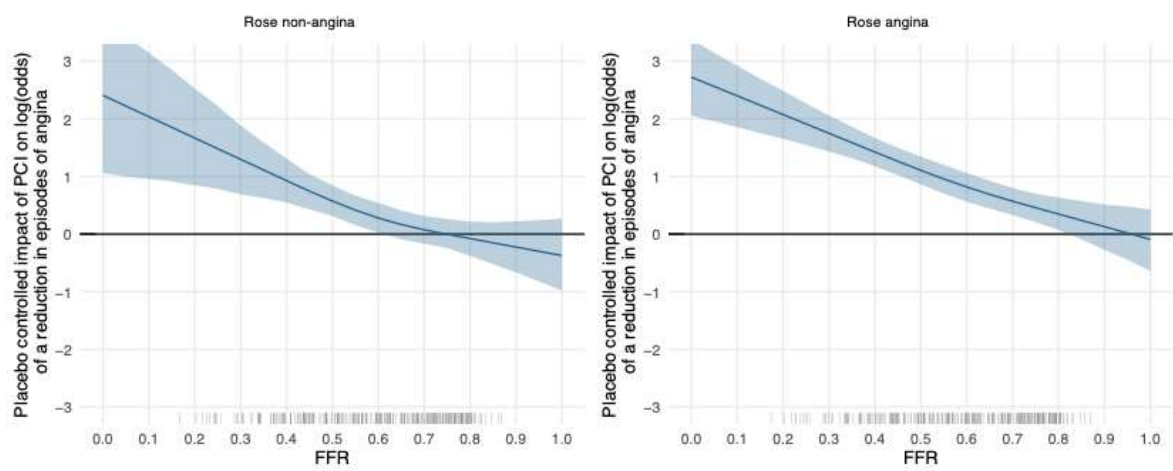


## Daily angina episodes

Supplementary figure S6: result: daily angina episodes

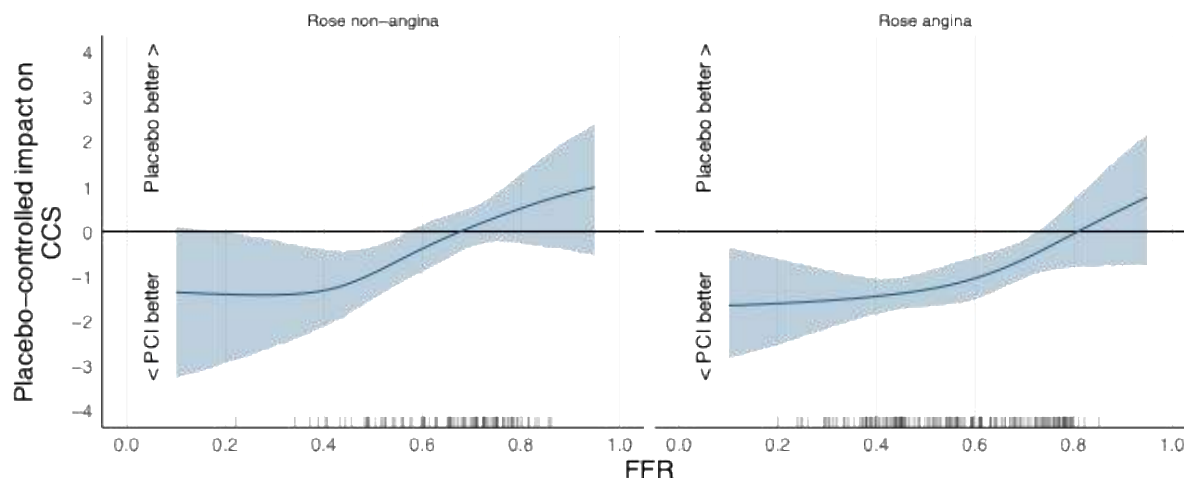


Supplementary figure S7: result: daily angina episodes for Rose angina and Rose nonangina



## CCS class

Supplementary figure S8: result: CCS class for Rose angina and Rose nonangina



Supplementary figure S9: Regression model and coefficients for CCS class

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
brm(formula = num_ccs_fu ~ num_ccs_rand + Treatment * rcs(angio_stenosis_ffr,
3), data = analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

```
0 1 2 3 4
76 59 83 47 7
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes         | Rank Discrim.<br>Indexes             |
|-------------|--|-----------------------------------|--------------------------------------|
| Obs 272     | B 0.2 [0.196, 0.206]                         | g 1.245 [0.976, 1.496]            | C 0.712 [0.699, 0.721]               |
| Draws 40000 |  | g <sub>p</sub> 0.25 [0.215, 0.29] | D <sub>xy</sub> 0.423 [0.399, 0.442] |
| Chains 4    |  | EV 0.196 [0.149, 0.259]           |                                      |
| Time 12.9s  |  | v 1.303 [0.75, 1.838]             |                                      |
| p 6         |  | vp 0.049 [0.036, 0.064]           |                                      |

|                                     | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|-------------------------------------|--------------|----------------|--------|----------|---------|-------------------|----------|
| y <sub>z</sub> 1                    | 1.2200       | 1.2229         | 1.3367 | -1.3621  | 3.8906  | 0.8213            | 1.00     |
| y <sub>z</sub> 2                    | 0.0544       | 0.0576         | 1.3381 | -2.6709  | 2.5865  | 0.5174            | 0.99     |
| y <sub>z</sub> 3                    | -1.6471      | -1.6419        | 1.3418 | -4.3411  | 0.9372  | 0.1078            | 0.99     |
| y <sub>z</sub> 4                    | -4.0932      | -4.0819        | 1.3769 | -6.8423  | -1.4359 | 0.0017            | 0.97     |
| num_ccs_rand                        | 0.9082       | 0.9070         | 0.2085 | 0.4993   | 1.3162  | 1.0000            | 1.02     |
| Treatment=PCI                       | -6.7721      | -6.7490        | 1.7370 | -10.1885 | -3.3984 | 0.0000            | 0.97     |
| angio_stenosis_ffr                  | -2.6721      | -2.6756        | 2.5157 | -7.7723  | 2.1337  | 0.1426            | 0.99     |
| angio_stenosis_ffr'                 | 0.6985       | 0.6951         | 2.8102 | -4.7404  | 6.2425  | 0.5996            | 0.99     |
| Treatment=PCI × angio_stenosis_ffr  | 9.7619       | 9.7211         | 3.6170 | 2.4893   | 16.6866 | 0.9971            | 1.03     |
| Treatment=PCI × angio_stenosis_ffr' | -2.0897      | -2.0879        | 3.9301 | -9.7726  | 5.6466  | 0.2977            | 0.99     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```



Supplementary figure S10: Regression model and coefficients for CCS class for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
blrm(formula = num_ccs_fu ~ num_ccs_rand + Treatment * rcs(angio_stenosis_ffr,
3) * rose_is_angina_random, data = rose_analysis_d, pcontrast = pcon,
iter = 20000, chains = 4, refresh = 100, progress = file.path(output_dir,
"interact_res2.progress.txt"), loo = FALSE, ppairs = NULL,
method = "sampling", file = file.path(output_dir, "interact_res2.blrm.rds"))
```

Frequencies of Responses

```
0 1 2 3 4
69 53 72 44 5
```

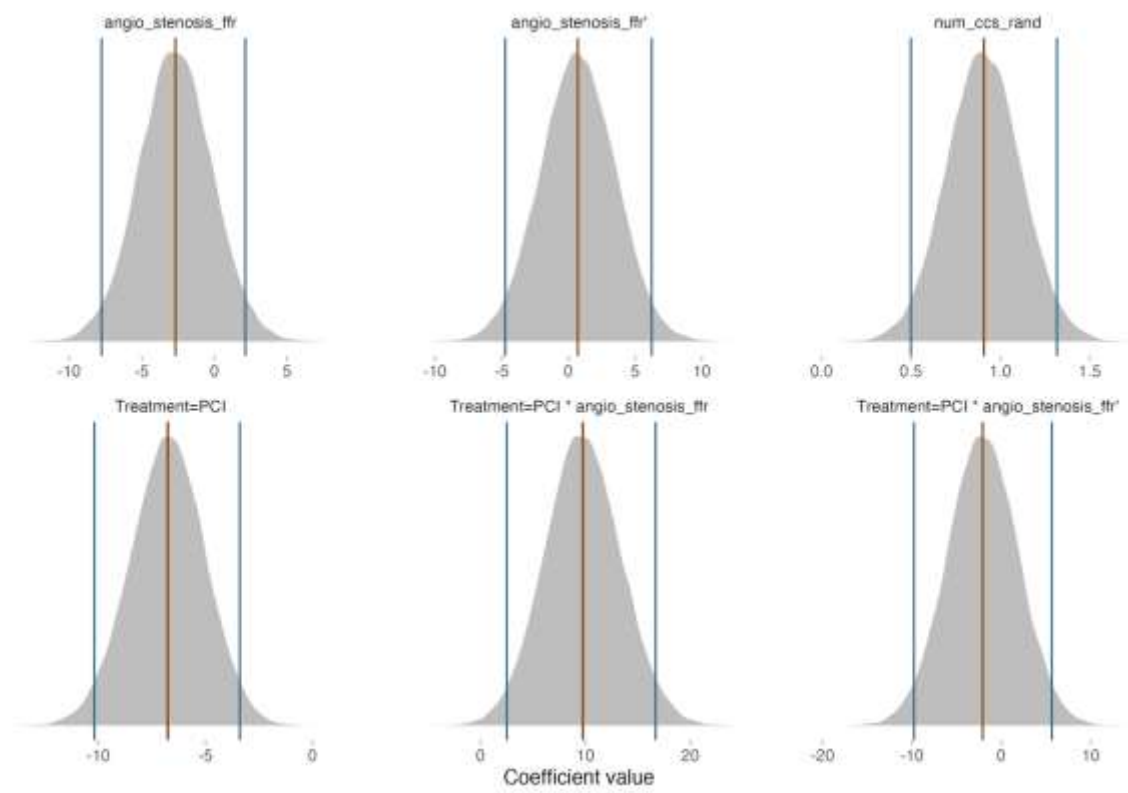
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes    | Rank Discrim.<br>Indexes     |
|-------------|--|------------------------------|------------------------------|
| Obs 243     | B 0.174 [0.169, 0.179]                       | $\beta$ 1.435 [1.156, 1.761] | C 0.725 [0.713, 0.737]       |
| Draws 40000 |  | $\beta_p$ 0.239 [0.2, 0.284] | $D_{xy}$ 0.45 [0.426, 0.474] |
| Chains 4    |  | EV 0.247 [0.169, 0.329]      |                              |
| Time 12.9s  |  | v 1.643 [1.007, 2.402]       |                              |
| p 12        |  | vp 0.049 [0.033, 0.068]      |                              |

|   | Mean $\beta$ | Median $\beta$ | S.E.    | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|---------|----------|---------|-------------------|----------|
| yz1   | -0.9427      | -0.9771        | 2.4703  | -5.9584  | 3.7931  | 0.3462            | 1.03     |
| yz2   | -2.1672      | -2.1993        | 2.4742  | -7.1287  | 2.6548  | 0.1867            | 1.03     |
| yz3   | -3.9136      | -3.9418        | 2.4860  | -8.8740  | 0.9510  | 0.0583            | 1.02     |
| yz4   | -6.6665      | -6.6877        | 2.5277  | -11.5852 | -1.6579 | 0.0051            | 1.03     |
| num_ccs_rand  | 1.0885       | 1.0871         | 0.2314  | 0.6438   | 1.5498  | 1.0000            | 1.02     |
| Treatment=PCI   | -7.7618      | -7.6533        | 4.8161  | -17.1647 | 1.7241  | 0.0494            | 0.94     |
| angio_stenosis_ffr  | 1.1978       | 1.2725         | 4.6555  | -8.2042  | 10.1526 | 0.6086            | 0.97     |
| angio_stenosis_ffr'   | -4.6281      | -4.6666        | 4.8608  | -14.4195 | 4.7228  | 0.1684            | 1.02     |
| rose_is_angina_random   | 0.7608       | 0.7976         | 2.7961  | -4.5753  | 6.3935  | 0.6114            | 0.98     |
| Treatment=PCI $\times$ angio_stenosis_ffr                                 | 12.0813      | 11.9129        | 9.2072  | -6.5109  | 29.5868 | 0.9083            | 1.06     |
| Treatment=PCI $\times$ angio_stenosis_ffr'                                | -2.6413      | -2.5372        | 8.3046  | -19.1270 | 13.3679 | 0.3789            | 0.96     |
| Treatment=PCI $\times$ rose_is_angina_random                              | 3.1026       | 3.0171         | 5.2852  | -7.3013  | 13.4598 | 0.7209            | 1.05     |
| angio_stenosis_ffr $\times$ rose_is_angina_random                         | -1.4429      | -1.5108        | 5.7880  | -12.7231 | 9.9934  | 0.3973            | 1.02     |
| angio_stenosis_ffr' $\times$ rose_is_angina_random                        | 3.5957       | 3.6245         | 6.4116  | -8.8003  | 16.2706 | 0.7153            | 0.99     |
| Treatment=PCI $\times$ angio_stenosis_ffr $\times$ rose_is_angina_random  | -8.0344      | -7.8876        | 10.3759 | -28.0727 | 12.6094 | 0.2210            | 0.96     |
| Treatment=PCI $\times$ angio_stenosis_ffr' $\times$ rose_is_angina_random | 6.2963       | 6.1984         | 10.0523 | -13.1588 | 26.2143 | 0.7339            | 1.02     |

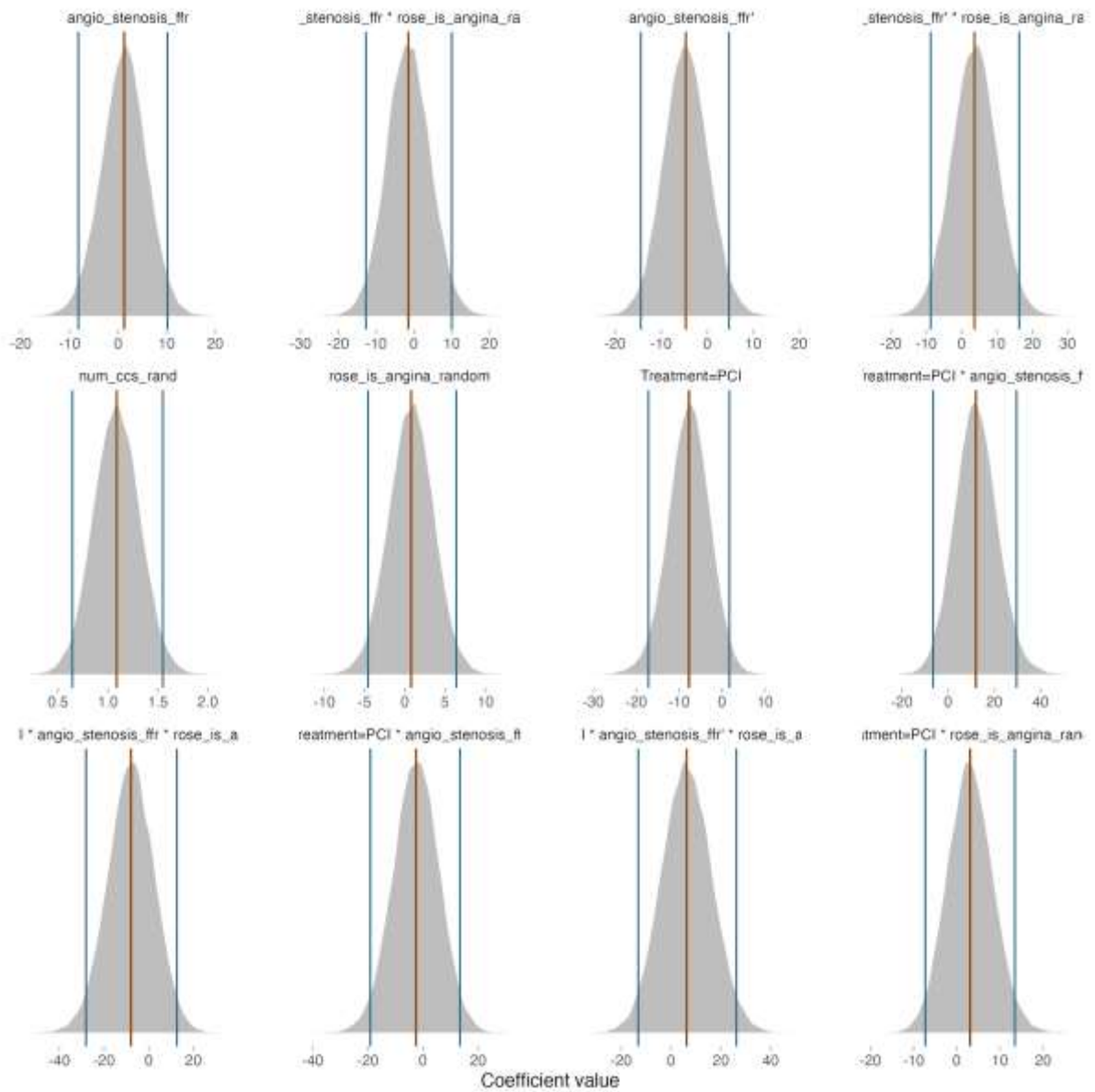
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

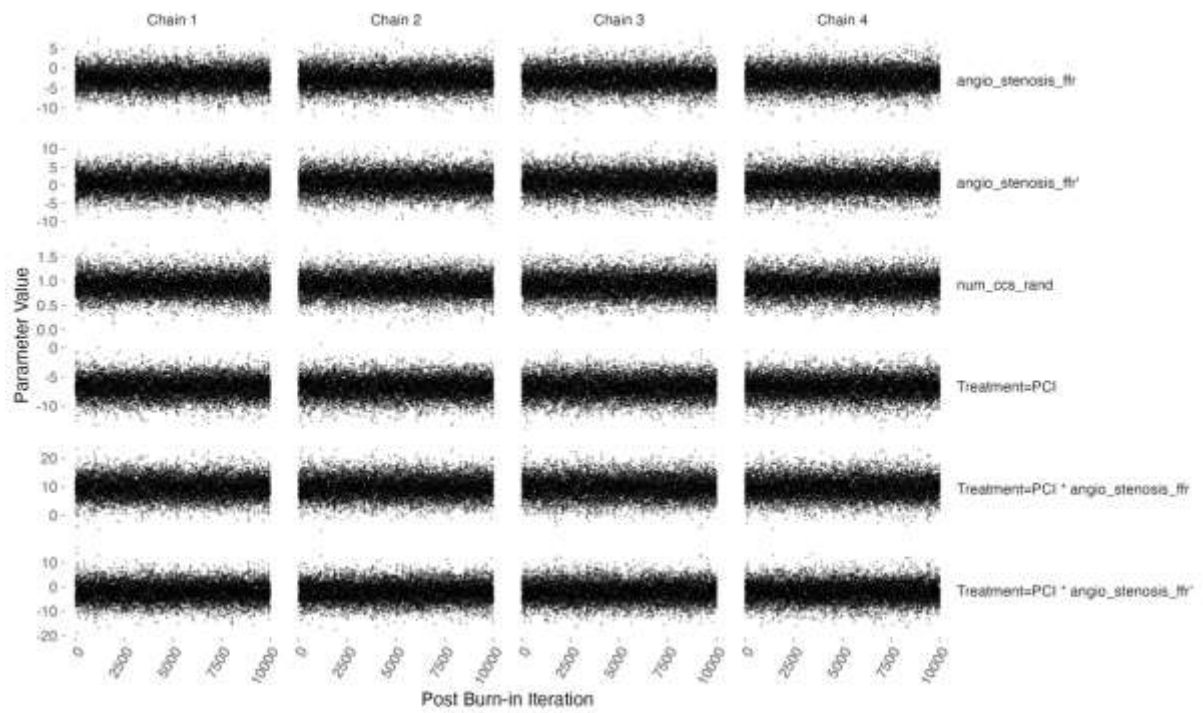
Supplementary figure S11: coefficient density plots: CCS class



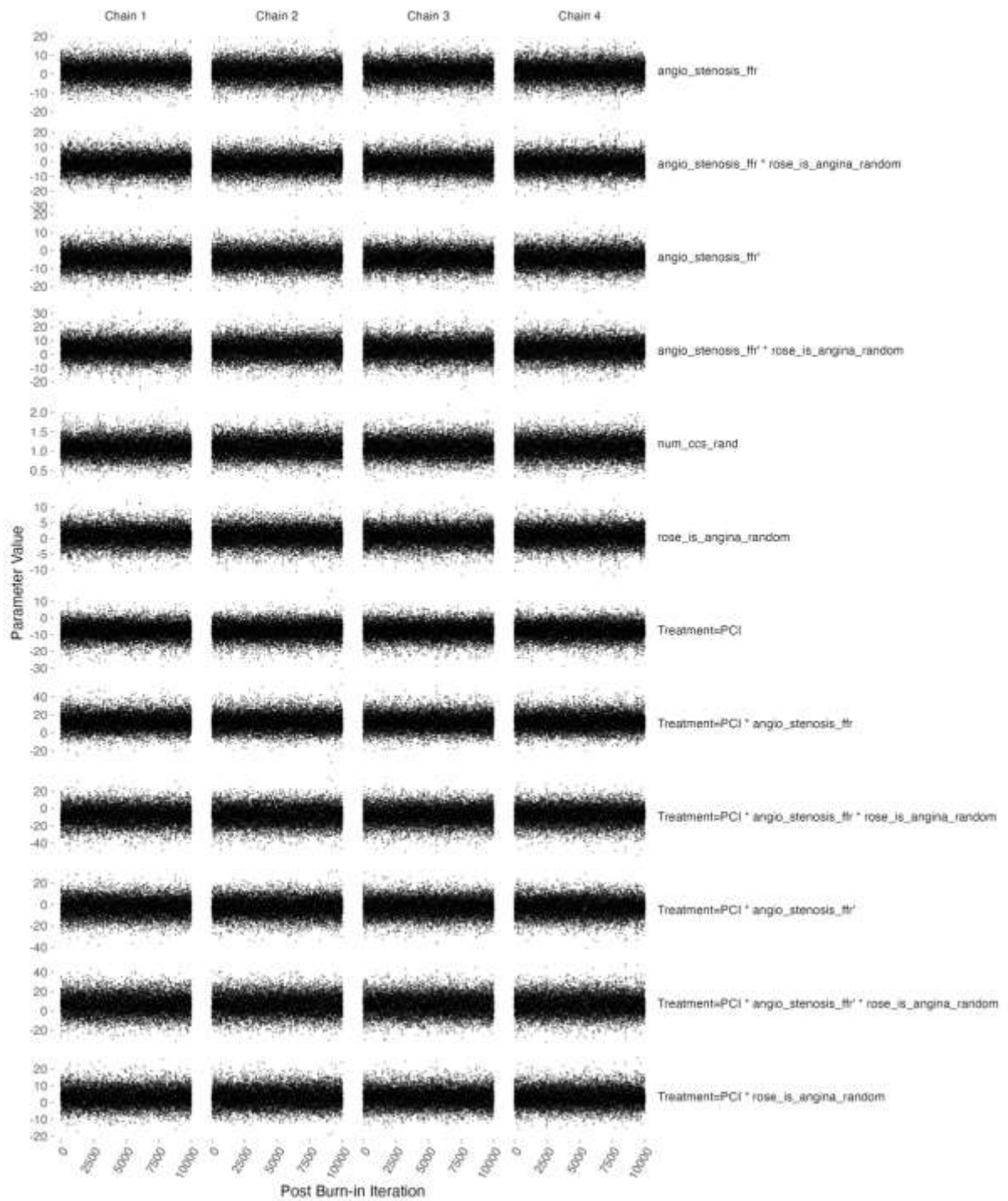
Supplementary figure S12: coefficient density plots: CCS class for Rose angina and Rose nonangina



Supplementary figure S13: chain plot of MCMC draws for CCS class

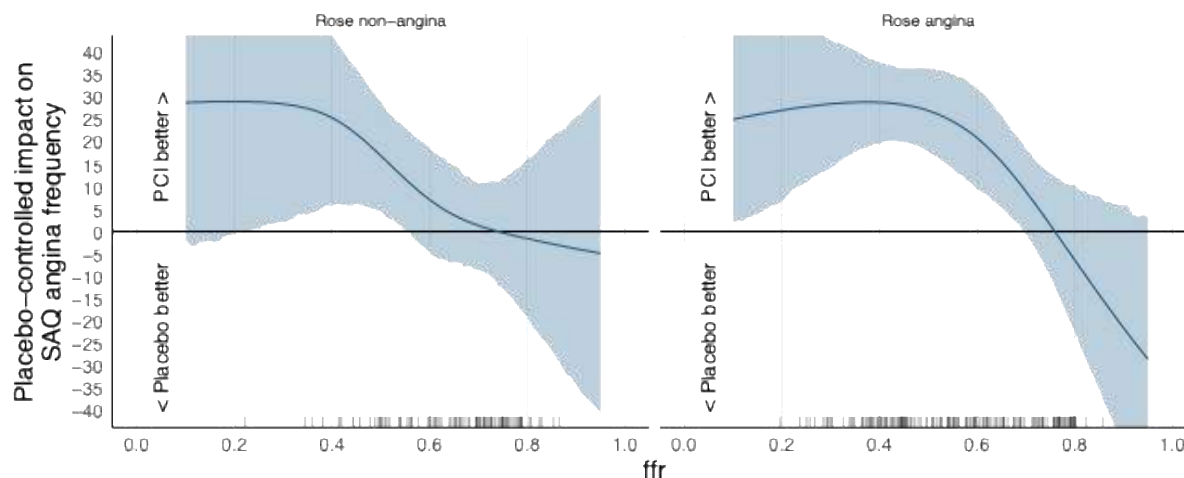


Supplementary figure S14: chain plot of MCMC draws for CCS class for Rose angina and Rose nonangina



## SAQ angina frequency

Supplementary figure S15: result: SAQ angina frequency for Rose angina and Rose nonangina



Supplementary figure S16: Regression model and coefficients for SAQ angina frequency

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.233 for Intercepts

```
blrm(formula = outcome_saq_angina_freq_post ~ rcs(outcome_saq_angina_freq_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_resl.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_resl.blrm.rds"))
```

### Frequencies of Responses

```
0 20 30 40 50 60 70 80 90 100
1 14 8 20 9 34 35 39 33 77
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes          | Rank Discrim.<br>Indexes             |
|-------------|--|------------------------------------|--------------------------------------|
| Obs 270     | B 0.185 [0.18, 0.192]                        | g 1.502 [1.174, 1.767]             | C 0.729 [0.716, 0.74]                |
| Draws 40000 |  | g <sub>p</sub> 0.286 [0.247, 0.32] | D <sub>xy</sub> 0.459 [0.431, 0.481] |
| Chains 4    |  | EV 0.248 [0.186, 0.309]            |                                      |
| Time 17.8s  |  | v 1.819 [1.106, 2.549]             |                                      |
| p 7         |  | vp 0.062 [0.046, 0.077]            |                                      |

|   | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|--------|----------|---------|-------------------|----------|
| y $\geq$ 20                                 | 3.6816       | 3.6118         | 1.6688 | 0.4156   | 6.9522  | 0.9915            | 1.14     |
| y $\geq$ 30                                 | 0.5374       | 0.5553         | 1.2980 | -2.0626  | 3.0079  | 0.6627            | 0.99     |
| y $\geq$ 40                                 | -0.0099      | 0.0030         | 1.2938 | -2.6077  | 2.4349  | 0.5008            | 0.98     |
| y $\geq$ 50                                 | -0.8563      | -0.8442        | 1.2964 | -3.4148  | 1.6323  | 0.2543            | 0.98     |
| y $\geq$ 60                                 | -1.1345      | -1.1233        | 1.2953 | -3.6789  | 1.3702  | 0.1903            | 0.99     |
| y $\geq$ 70                                 | -1.9598      | -1.9511        | 1.2995 | -4.5644  | 0.5172  | 0.0638            | 0.98     |
| y $\geq$ 80                                 | -2.6846      | -2.6695        | 1.3039 | -5.2739  | -0.1805 | 0.0187            | 0.99     |
| y $\geq$ 90                                 | -3.4638      | -3.4538        | 1.3103 | -6.0139  | -0.8940 | 0.0035            | 0.98     |
| y $\geq$ 100                                | -4.1595      | -4.1488        | 1.3128 | -6.7143  | -1.5847 | 0.0008            | 0.98     |
| outcome_saq_angina_freq_pre                 | 0.0236       | 0.0235         | 0.0132 | -0.0023  | 0.0491  | 0.9648            | 1.02     |
| outcome_saq_angina_freq_pre'                | 0.0211       | 0.0210         | 0.0132 | -0.0048  | 0.0468  | 0.9444            | 1.01     |
| Treatment=PCI                               | 6.1615       | 6.1390         | 1.6964 | 2.8306   | 9.4673  | 0.9999            | 1.04     |
| angio_stenosis_ffr                          | 0.4294       | 0.4144         | 2.5354 | -4.5244  | 5.4449  | 0.5674            | 1.02     |
| angio_stenosis_ffr'                         | 1.3117       | 1.3049         | 2.8131 | -4.3359  | 6.7012  | 0.6803            | 1.01     |
| Treatment=PCI $\times$ cardio_stenosis_ffr  | -8.6188      | -8.5806        | 3.5477 | -15.7066 | -1.7898 | 0.0064            | 0.97     |
| Treatment=PCI $\times$ cardio_stenosis_ffr' | 1.0496       | 1.0334         | 3.8613 | -6.5470  | 8.6034  | 0.6052            | 1.01     |

### Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S17: Regression model and coefficients for SAQ angina frequency for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.253 for Intercepts

```
blrm(formula = outcome_saq_angina_freq_post ~ rcs(outcome_saq_angina_freq_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

20 30 40 50 60 70 80 90 100  
14 8 18 7 28 31 36 29 70

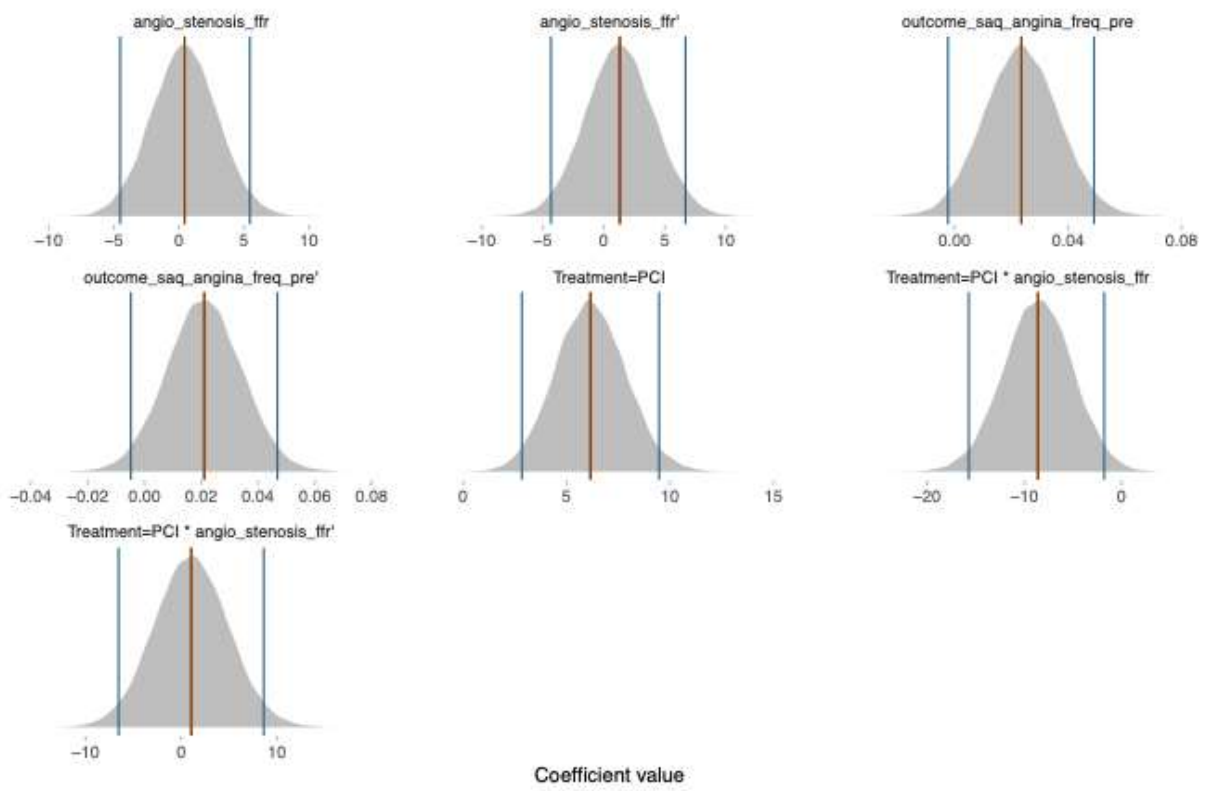
|        |       | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes      | Rank Discrim.<br>Indexes      |
|--------|-------|--|--------------------------------|-------------------------------|
| Obs    | 241   | B 0.188 [0.179, 0.199]                       | R 1.604 [1.28, 1.917]          | C 0.729 [0.713, 0.741]        |
| Draws  | 40000 |  | $\beta_p$ 0.297 [0.255, 0.333] | $D_{xy}$ 0.458 [0.427, 0.482] |
| Chains | 4     |  | EV 0.269 [0.199, 0.332]        |                               |
| Time   | 14.6s |  | v 2.063 [1.258, 2.923]         |                               |
| p      | 13    |  | vp 0.067 [0.048, 0.083]        |                               |

|  | Mean $\beta$ | Median $\beta$ | S.E.    | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|--|--------------|----------------|---------|----------|---------|-------------------|----------|
| yz<30  | 0.9782       | 1.0022         | 2.1023  | -3.3063  | 4.9641  | 0.6853            | 0.95     |
| yz=40  | 0.3760       | 0.4022         | 2.0940  | -3.7792  | 4.4449  | 0.5770            | 0.95     |
| yz=50  | -0.4687      | -0.4453        | 2.0931  | -4.6806  | 3.5667  | 0.4164            | 0.95     |
| yz=60  | -0.7186      | -0.6937        | 2.0935  | -4.9522  | 3.2847  | 0.3712            | 0.95     |
| yz=70  | -1.5062      | -1.4796        | 2.0957  | -5.6570  | 2.6079  | 0.2366            | 0.95     |
| yz=80  | -2.2395      | -2.2131        | 2.1007  | -6.5205  | 1.7612  | 0.1404            | 0.95     |
| yz=90  | -3.0545      | -3.0247        | 2.1049  | -7.2257  | 1.0679  | 0.0685            | 0.94     |
| yz=100   | -3.7469      | -3.7165        | 2.1076  | -7.9309  | 0.3775  | 0.0347            | 0.95     |
| outcome_saq_angina_freq_pre  | 0.0292       | 0.0291         | 0.0141  | 0.0007   | 0.0561  | 0.9817            | 1.02     |
| outcome_saq_angina_freq_pre'   | 0.0147       | 0.0147         | 0.0142  | -0.0135  | 0.0423  | 0.8520            | 1.00     |
| Treatment=PCI  | 7.5055       | 7.4661         | 4.6529  | -1.3770  | 16.9015 | 0.9480            | 1.03     |
| angio_stenosis_ffr   | -0.5555      | -0.6268        | 4.1935  | -8.6881  | 7.7998  | 0.4401            | 1.04     |
| angio_stenosis_ffr'  | 2.0618       | 2.0785         | 4.5127  | -6.7957  | 10.8302 | 0.6786            | 0.99     |
| rose_is_angina_random  | 0.5872       | 0.5574         | 2.5512  | -4.3707  | 5.6568  | 0.5876            | 1.03     |
| Treatment=PCI $\times$ cardio_stenosis_ffr                                 | -12.1947     | -12.1238       | 8.9799  | -29.9073 | 5.3715  | 0.0866            | 0.97     |
| Treatment=PCI $\times$ cardio_stenosis_ffr'                                | 5.8536       | 5.8337         | 8.3183  | -10.4893 | 22.0678 | 0.7593            | 1.02     |
| Treatment=PCI $\times$ rose_is_angina_random                               | -3.1540      | -3.1224        | 5.0983  | -13.2596 | 6.7100  | 0.2661            | 0.98     |
| angio_stenosis_ffr $\times$ rose_is_angina_random                          | -1.9429      | -1.8816        | 5.3269  | -12.3159 | 8.5256  | 0.3586            | 0.97     |
| angio_stenosis_ffr' $\times$ rose_is_angina_random                         | 2.6404       | 2.6191         | 6.0881  | -9.2490  | 14.5379 | 0.6655            | 1.01     |
| Treatment=PCI $\times$ cardio_stenosis_ffr $\times$ rose_is_angina_random  | 8.4656       | 8.3928         | 10.0877 | -11.2245 | 28.3741 | 0.8004            | 1.02     |
| Treatment=PCI $\times$ cardio_stenosis_ffr' $\times$ rose_is_angina_random | -11.0657     | -10.9861       | 9.9883  | -30.6529 | 8.5791  | 0.1324            | 0.98     |

Contrasts Given Priors

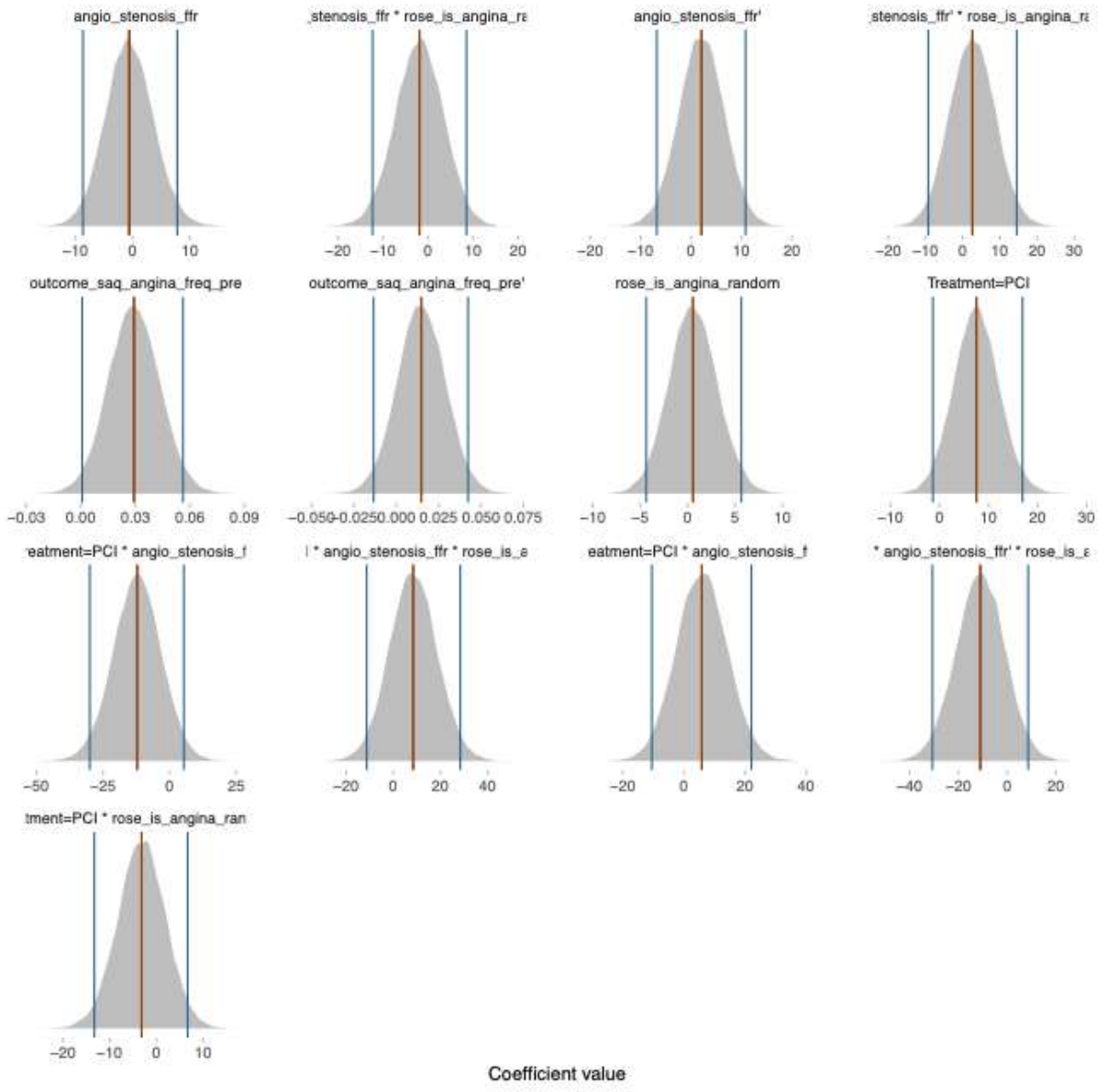
```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S18: coefficient density plots: SAQ angina frequency

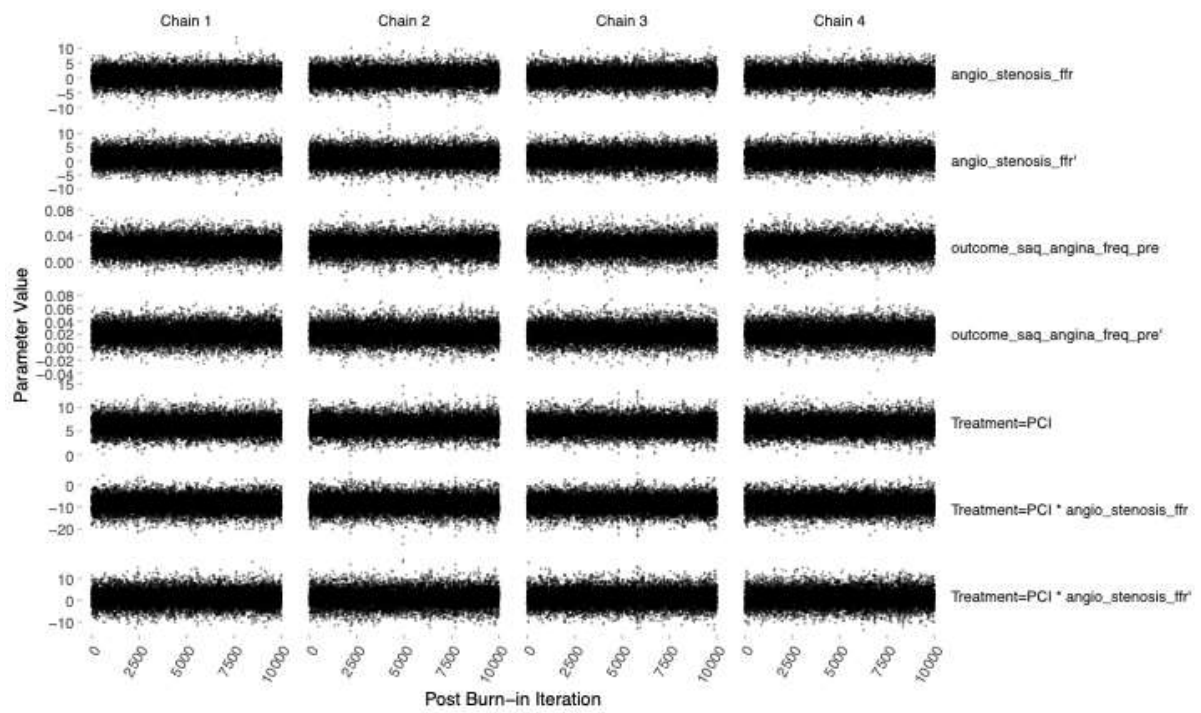




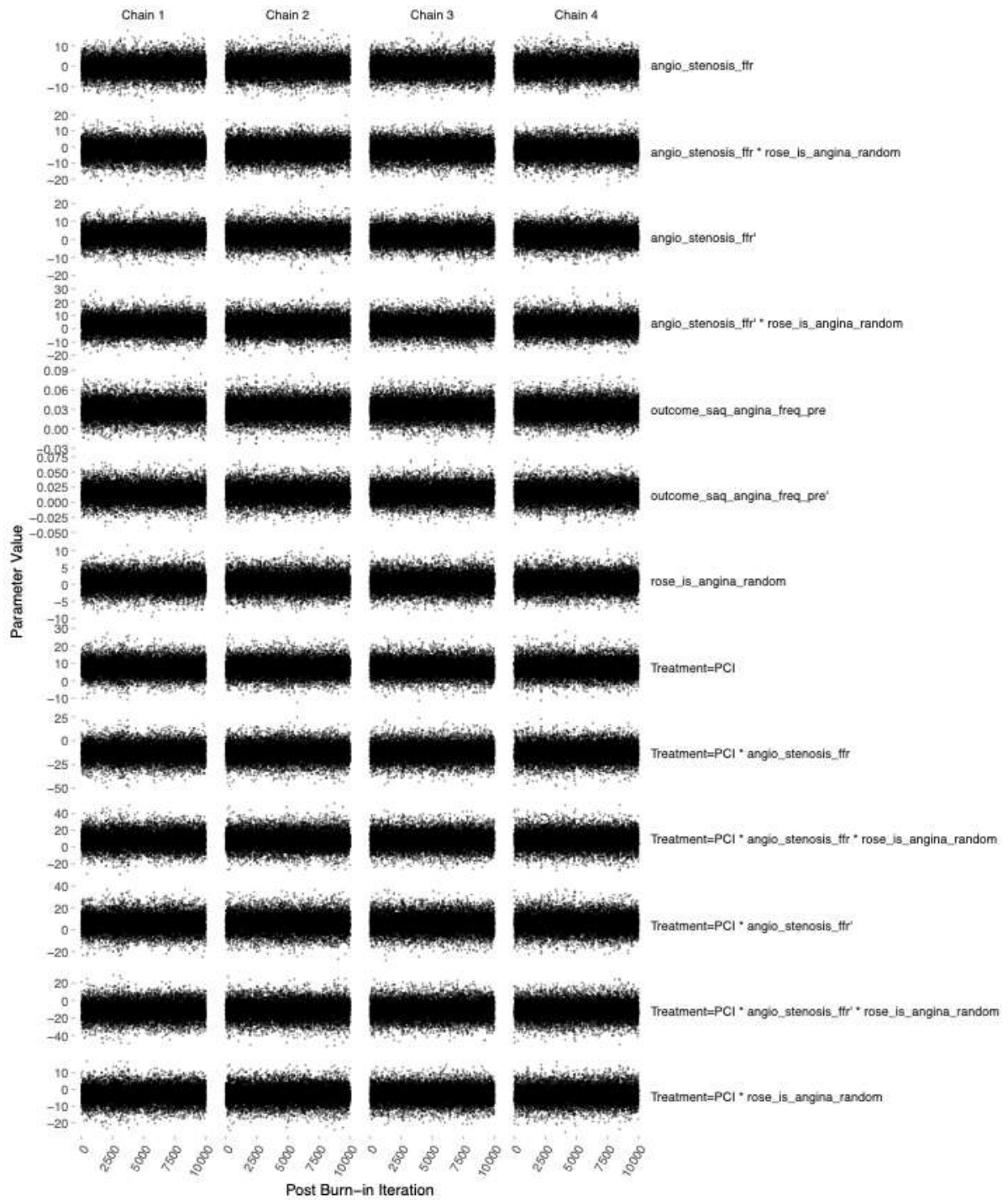
Supplementary figure S19: coefficient density plots: SAQ angina frequency for Rose angina and Rose nonangina



Supplementary figure S20: chain plot of MCMC draws for SAQ angina frequency

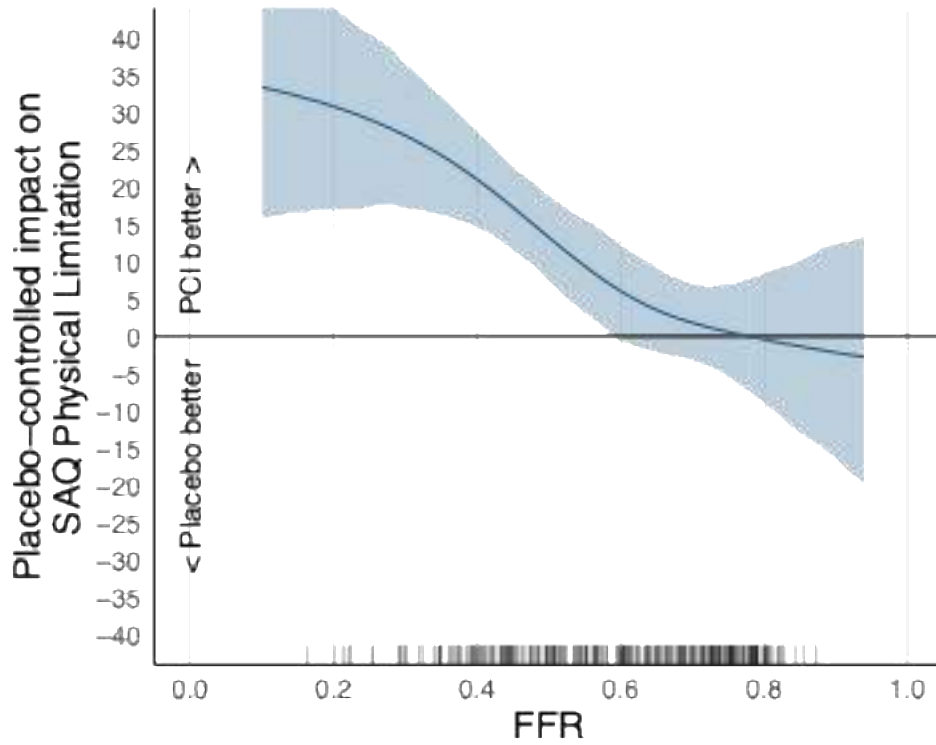


Supplementary figure S21: chain plot of MCMC draws for SAQ angina frequency for Rose angina and Rose nonangina

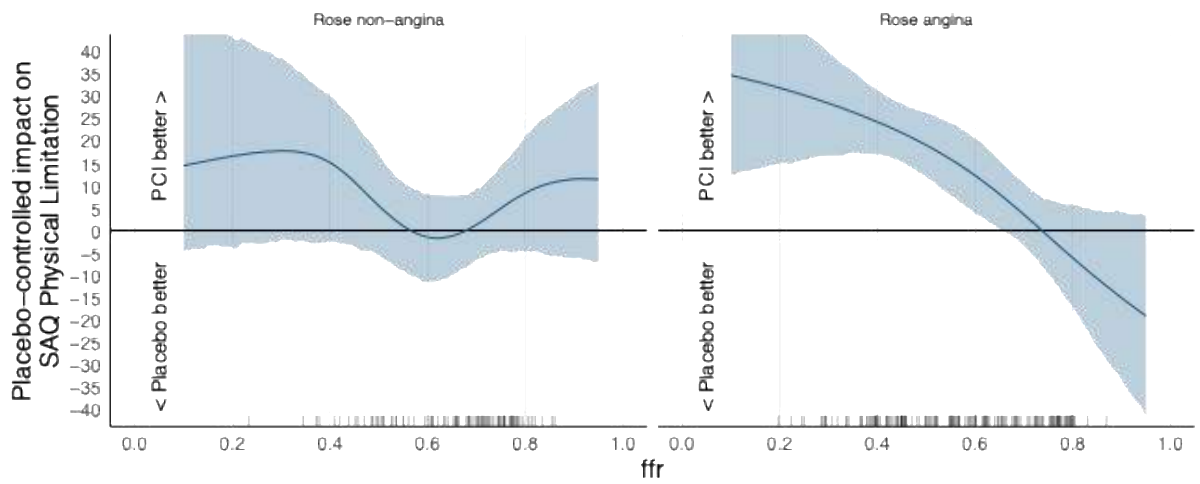


SAQ physical limitation

Supplementary figure S22: result: SAQ physical limitation



Supplementary figure S23: result: SAQ physical limitation for Rose angina and Rose nonangina



## Supplementary figure S24: Regression model and coefficients for SAQ physical limitation

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.062 for Intercepts

```
blrm(formula = outcome_saq_pl_post ~ rcs(outcome_saq_pl_pre,
3) + Treatment * rcs(angio_stenosis_ffr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

```
2.778 5.556 19.444 22.222 25 27.778 30.556 33.333 36.111 38.889 40.278 41.667 44.444
1 1 1 3 7 5 4 6 1 1 1 2 3
47.222 50 51.389 52.778 54.167 55.556 56.944 58.333 59.722 61.111 62.5 63.889 66.667
4 10 2 6 2 10 1 4 1 7 2 4 15
68.056 69.444 72.222 75 77.778 79.167 80.556 83.333 84.722 86.111 88.889 90.278 91.667
1 9 9 7 11 1 5 10 1 11 7 2 7
93.056 94.444 95.833 97.222 100
2 11 2 16 46
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes | Rank Discrim.<br>Indexes      |
|-------------|--|---------------------------|-------------------------------|
| Obs 262     | B 0.168 [0.163, 0.175]                       | $g$ 2.135 [1.813, 2.427]  | C 0.759 [0.751, 0.763]        |
| Draws 40000 |  | $g_p$ 0.344 [0.318, 0.37] | $D_{xy}$ 0.517 [0.503, 0.526] |
| Chains 4    |  | EV 0.36 [0.306, 0.42]     |                               |
| Time 23s    |  | $v$ 3.752 [2.689, 4.756]  |                               |
| $p$ 7       |  | $vp$ 0.09 [0.076, 0.105]  |                               |

|  | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|--|--------------|----------------|--------|----------|---------|-------------------|----------|
| outcome_saq_pl_pre                         | 0.0994       | 0.0992         | 0.0137 | 0.0728   | 0.1264  | 1.0000            | 1.04     |
| outcome_saq_pl_pre'                        | -0.0340      | -0.0340        | 0.0149 | -0.0638  | -0.0057 | 0.0102            | 0.98     |
| Treatment=PCI                              | 6.3689       | 6.3692         | 1.5723 | 3.1912   | 9.3459  | 1.0000            | 1.01     |
| angio_stenosis_ffr                         | 1.1657       | 1.1642         | 2.2592 | -3.1706  | 5.6603  | 0.6974            | 1.00     |
| angio_stenosis_ffr'                        | 1.5778       | 1.5776         | 2.5810 | -3.5022  | 6.7014  | 0.7298            | 1.00     |
| Treatment=PCI $\times$ angio_stenosis_ffr  | -10.1239     | -10.1287       | 3.3023 | -16.4695 | -3.5551 | 0.0010            | 1.00     |
| Treatment=PCI $\times$ angio_stenosis_ffr' | 4.5982       | 4.5963         | 3.7712 | -2.7924  | 12.0045 | 0.8872            | 1.00     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S25: Regression model and coefficients for SAQ physical limitation for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.065 for Intercepts

```
blrm(formula = outcome_saq_pl_post ~ rcs(outcome_saq_pl_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|        |        |        |        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2,778  | 19,444 | 22,222 | 25     | 27,778 | 30,556 | 33,333 | 36,111 | 38,889 | 41,667 | 44,444 | 47,222 | 50     |
| 1      | 1      | 3      | 5      | 5      | 4      | 5      | 1      | 1      | 2      | 2      | 3      | 8      |
| 51,389 | 52,778 | 54,167 | 55,556 | 56,944 | 58,333 | 59,722 | 61,111 | 62,5   | 63,889 | 66,667 | 68,056 | 69,444 |
| 2      | 5      | 1      | 10     | 1      | 4      | 1      | 7      | 2      | 4      | 15     | 1      | 8      |
| 72,222 | 75     | 77,778 | 79,167 | 80,556 | 83,333 | 84,722 | 86,111 | 88,889 | 90,278 | 91,667 | 93,056 | 94,444 |
| 3      | 7      | 9      | 1      | 5      | 10     | 1      | 7      | 7      | 1      | 7      | 2      | 10     |
| 95,833 | 97,222 | 100    |        |        |        |        |        |        |        |        |        |        |
| 2      | 14     | 40     |        |        |        |        |        |        |        |        |        |        |

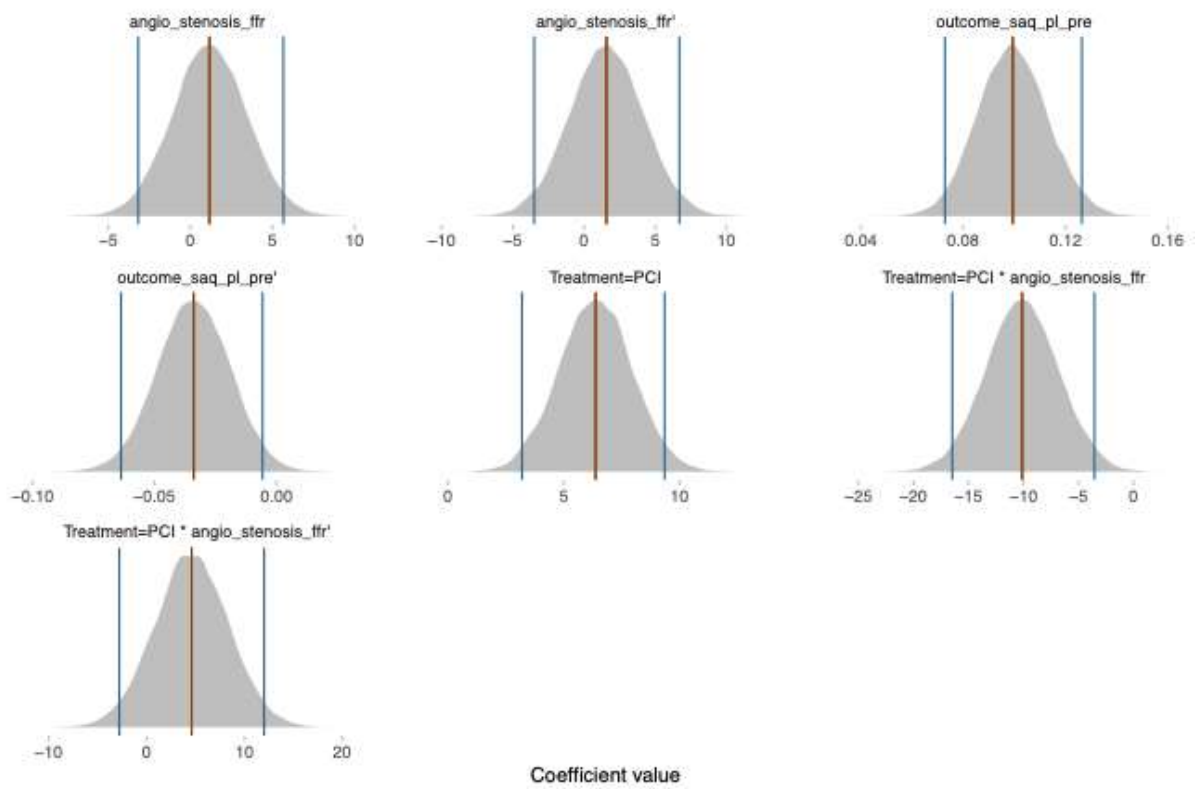
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 233     | B 0.173 [0.166, 0.18]                        | g 2.255 [1.917, 2.574]              | C 0.756 [0.746, 0.764]               |
| Draws 40000 |  | h <sub>p</sub> 0.356 [0.329, 0.381] | D <sub>xy</sub> 0.512 [0.493, 0.529] |
| Chains 4    |  | EV 0.389 [0.336, 0.45]              |                                      |
| Time 22.4s  |  | v 4.114 [2.924, 5.327]              |                                      |
| p 13        |  | vp 0.097 [0.083, 0.111]             |                                      |

|   | Mean β   | Median β | S.E.    | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|----------|----------|---------|----------|---------|---------|----------|
| outcome_saq_pl_pre  | 0.1033   | 0.1031   | 0.0148  | 0.0742   | 0.1319  | 1.0000  | 1.04     |
| outcome_saq_pl_pre'   | -0.0391  | -0.0389  | 0.0171  | -0.0727  | -0.0060 | 0.0106  | 0.99     |
| Treatment=PCI   | 7.9148   | 7.7847   | 4.8973  | -1.5750  | 17.7462 | 0.9524  | 1.08     |
| angio_stenosis_ffr  | -3.2937  | -3.2754  | 4.2293  | -11.6006 | 5.0273  | 0.2130  | 1.00     |
| angio_stenosis_ffr'   | 4.5279   | 4.5339   | 4.5195  | -4.2800  | 13.4681 | 0.8442  | 1.00     |
| rose_is_angina_random                                       | -2.7871  | -2.7928  | 2.5351  | -7.8187  | 2.0846  | 0.1342  | 1.00     |
| Treatment=PCI × angio_stenosis_ffr                          | -14.9676 | -14.7411 | 9.4055  | -33.8644 | 3.3113  | 0.0512  | 0.94     |
| Treatment=PCI × angio_stenosis_ffr'                         | 14.0150  | 13.8805  | 8.7103  | -2.6257  | 31.9728 | 0.9482  | 1.04     |
| Treatment=PCI × rose_is_angina_random                       | -2.3532  | -2.2541  | 5.2701  | -12.7873 | 8.0069  | 0.3303  | 0.93     |
| angio_stenosis_ffr × rose_is_angina_random                  | 5.1384   | 5.1425   | 5.2680  | -5.1205  | 15.5296 | 0.8362  | 0.99     |
| angio_stenosis_ffr' × rose_is_angina_random                 | -2.1683  | -2.1639  | 5.9498  | -14.0126 | 9.3957  | 0.3589  | 1.01     |
| Treatment=PCI × angio_stenosis_ffr × rose_is_angina_random  | 8.1825   | 8.0138   | 10.3263 | -11.3640 | 29.3767 | 0.7884  | 1.05     |
| Treatment=PCI × angio_stenosis_ffr' × rose_is_angina_random | -16.2608 | -16.2290 | 10.1614 | -36.6986 | 3.2864  | 0.0539  | 0.98     |

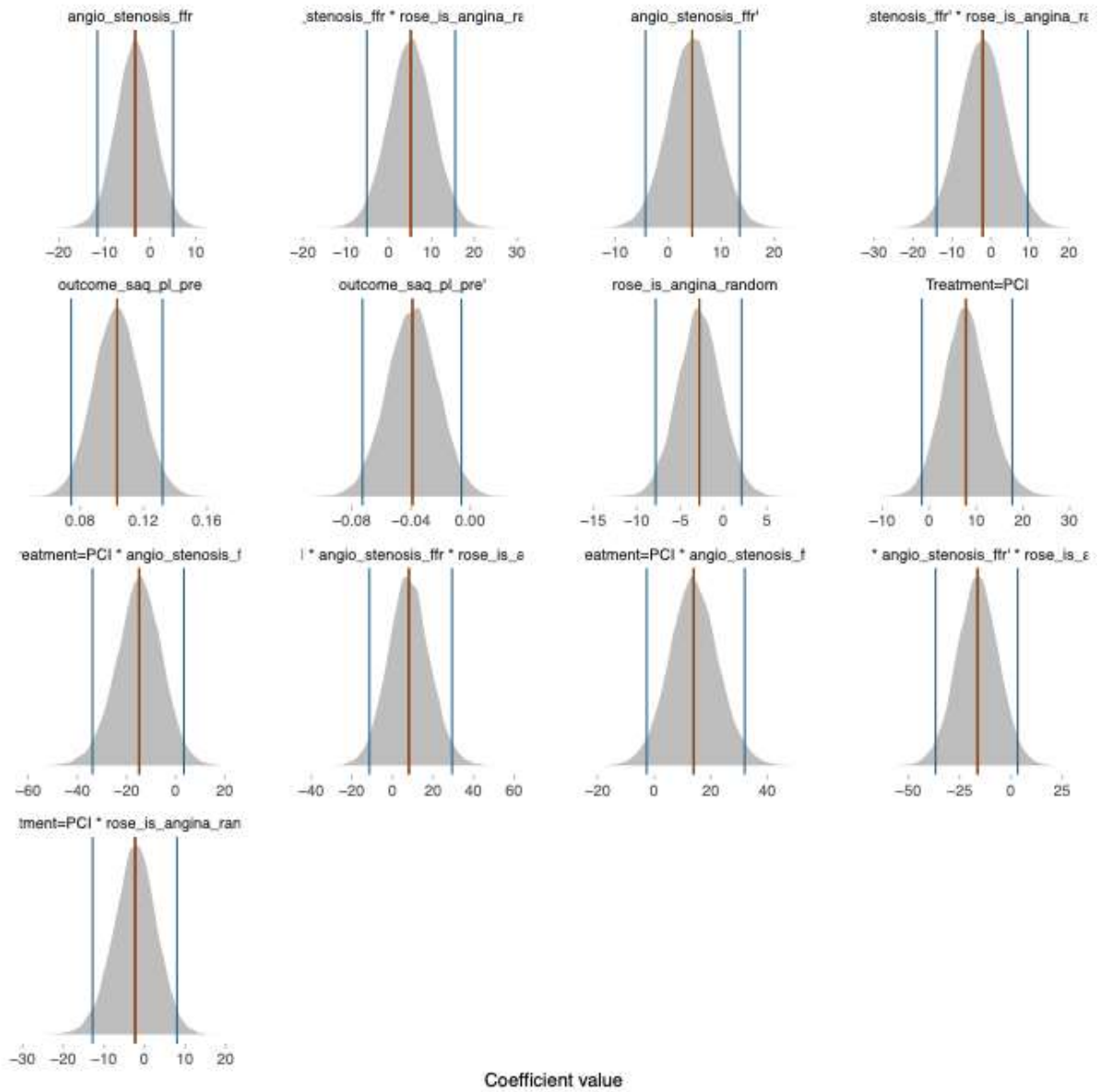
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S26: coefficient density plots: SAQ physical limitation

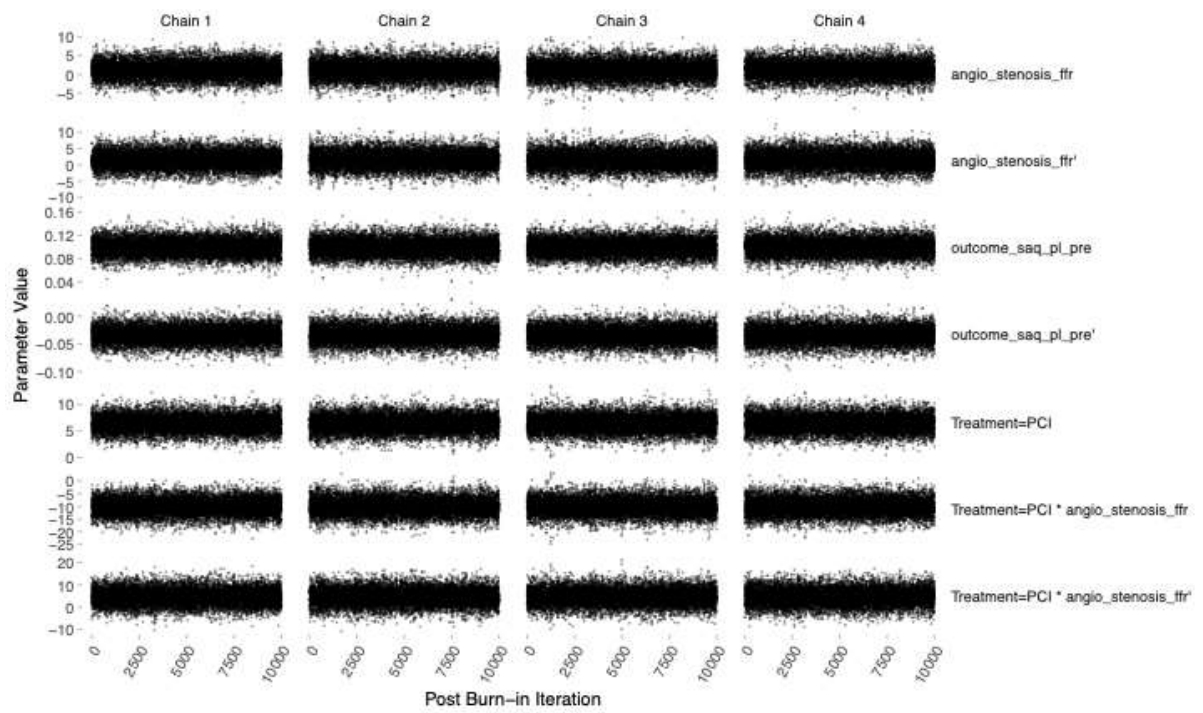


Supplementary figure S27: coefficient density plots: SAQ physical limitation for Rose angina and Rose nonangina

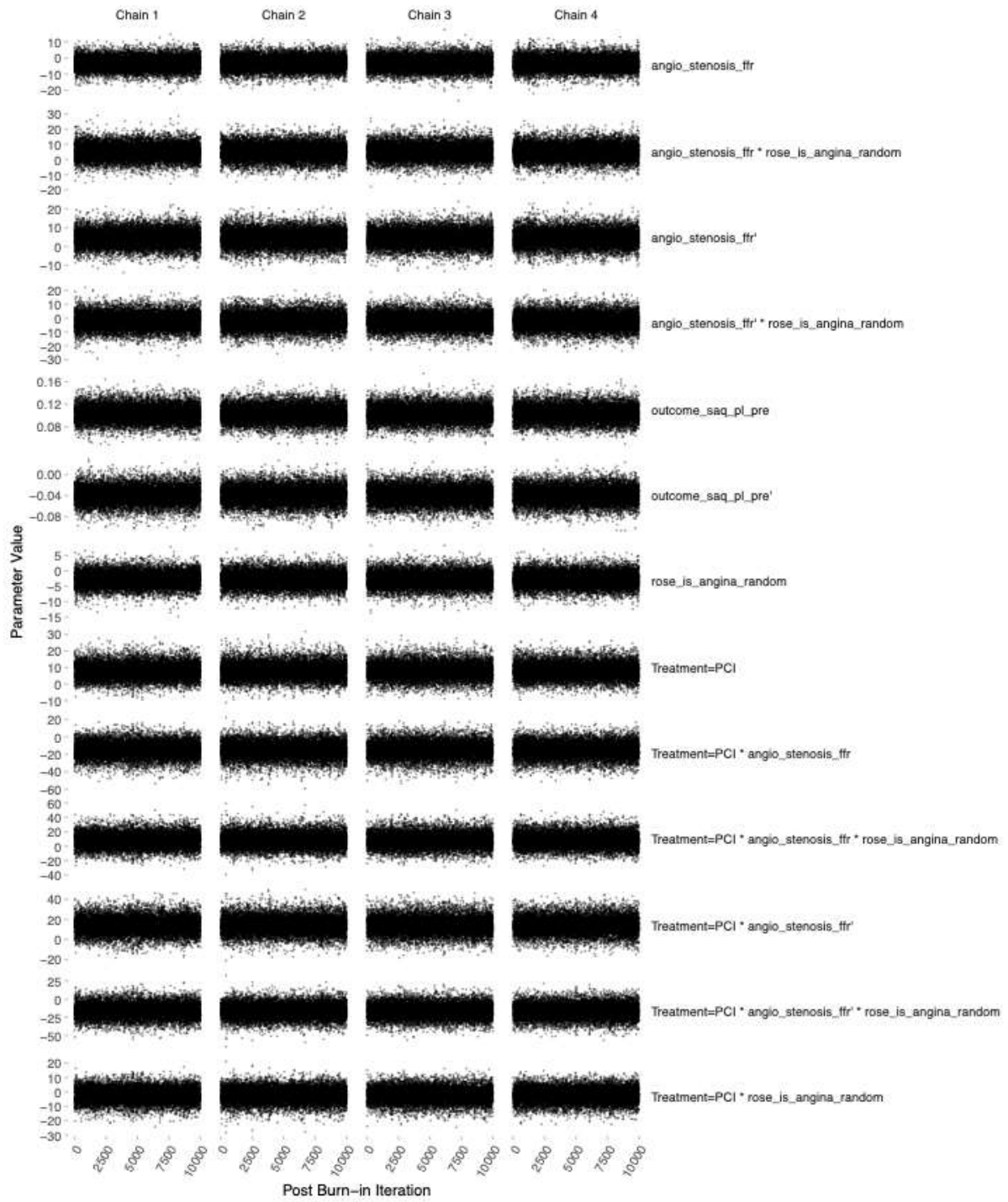




Supplementary figure S28: chain plot of MCMC draws for SAQ physical limitation

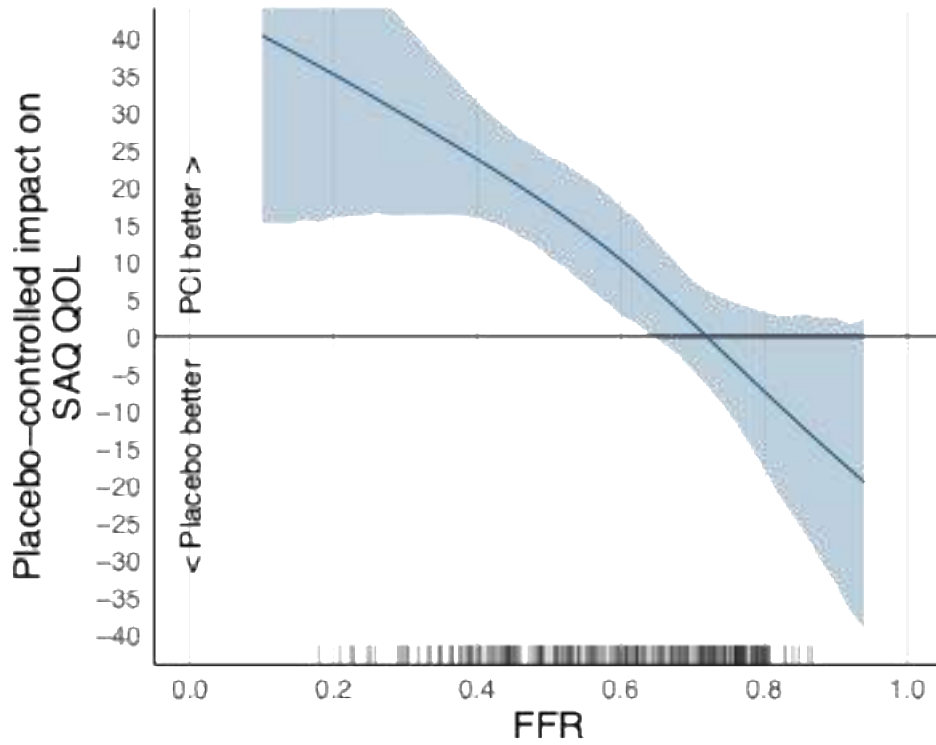


Supplementary figure S29: chain plot of MCMC draws for SAQ physical limitation for Rose angina and Rose nonangina

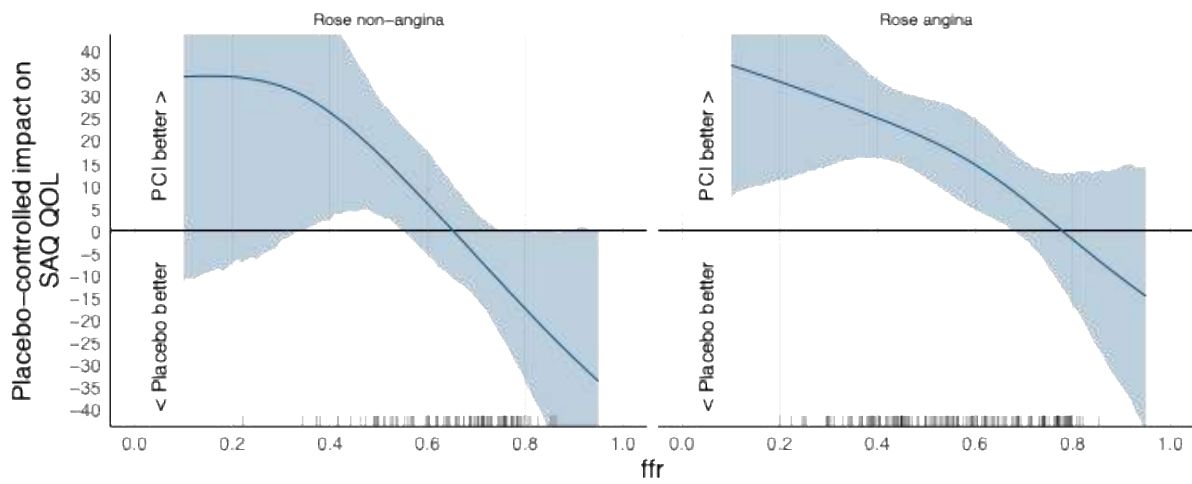


SAQ quality of life

Supplementary figure S30: result: SAQ quality of life



Supplementary figure S31: result: SAQ quality of life for Rose angina and Rose nonangina



Supplementary figure S32: Regression model and coefficients for SAQ quality of life

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_qol_post ~ rcs(outcome_saq_qol_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

|     |       |        |    |        |        |    |        |      |        |    |        |        |
|-----|-------|--------|----|--------|--------|----|--------|------|--------|----|--------|--------|
| 0   | 8.333 | 16.667 | 25 | 33.333 | 41.667 | 50 | 58.333 | 62.5 | 66.667 | 75 | 83.333 | 91.667 |
| 3   | 7     | 9      | 25 | 17     | 28     | 37 | 30     | 1    | 26     | 19 | 31     | 18     |
| 100 |       |        |    |        |        |    |        |      |        |    |        |        |
| 18  |       |        |    |        |        |    |        |      |        |    |        |        |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes            |
|-------------|--|-------------------------------------|-------------------------------------|
| Obs 269     | B 0.201 [0.198, 0.205]                       | g 1.499 [1.227, 1.8]                | C 0.717 [0.71, 0.724]               |
| Draws 40000 |  | g <sub>p</sub> 0.291 [0.256, 0.328] | D <sub>xy</sub> 0.434 [0.42, 0.448] |
| Chains 4    |  | EV 0.257 [0.192, 0.319]             |                                     |
| Time 18.2s  |  | v 1.76 [1.176, 2.514]               |                                     |
| p 7         |  | vp 0.064 [0.048, 0.08]              |                                     |

|                                     | Mean β  | Median β | S.E.   | Lower    | Upper  | Pr(β>0) | Symmetry |
|-------------------------------------|---------|----------|--------|----------|--------|---------|----------|
| outcome_saq_qol_pre                 | 0.0522  | 0.0521   | 0.0143 | 0.0246   | 0.0804 | 0.9999  | 1.03     |
| outcome_saq_qol_pre'                | -0.0005 | -0.0005  | 0.0160 | -0.0317  | 0.0310 | 0.4868  | 0.99     |
| Treatment=PCI                       | 4.0916  | 4.0878   | 1.5081 | 1.1218   | 7.0134 | 0.9968  | 1.00     |
| angio_stenosis_ffr                  | 2.3455  | 2.3253   | 2.3961 | -2.4156  | 6.9783 | 0.8371  | 1.02     |
| angio_stenosis_ffr'                 | -0.9552 | -0.9486  | 2.6496 | -6.1872  | 4.1936 | 0.3588  | 0.99     |
| Treatment=PCI × angio_stenosis_ffr  | -5.2101 | -5.1988  | 3.1999 | -11.4329 | 1.1286 | 0.0520  | 1.00     |
| Treatment=PCI × angio_stenosis_ffr' | -1.4603 | -1.4779  | 3.6260 | -8.6922  | 5.6206 | 0.3422  | 1.01     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S33: Regression model and coefficients for SAQ quality of life for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_qol_post ~ rcs(outcome_saq_qol_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|     |       |        |    |        |        |    |        |      |        |    |        |        |
|-----|-------|--------|----|--------|--------|----|--------|------|--------|----|--------|--------|
| 0   | 0.333 | 16.667 | 25 | 33.333 | 41.667 | 50 | 58.333 | 62.5 | 66.667 | 75 | 83.333 | 91.667 |
| 2   | 7     | 9      | 22 | 16     | 24     | 31 | 25     | 1    | 23     | 17 | 31     | 15     |
| 100 |       |        |    |        |        |    |        |      |        |    |        |        |
| 17  |       |        |    |        |        |    |        |      |        |    |        |        |

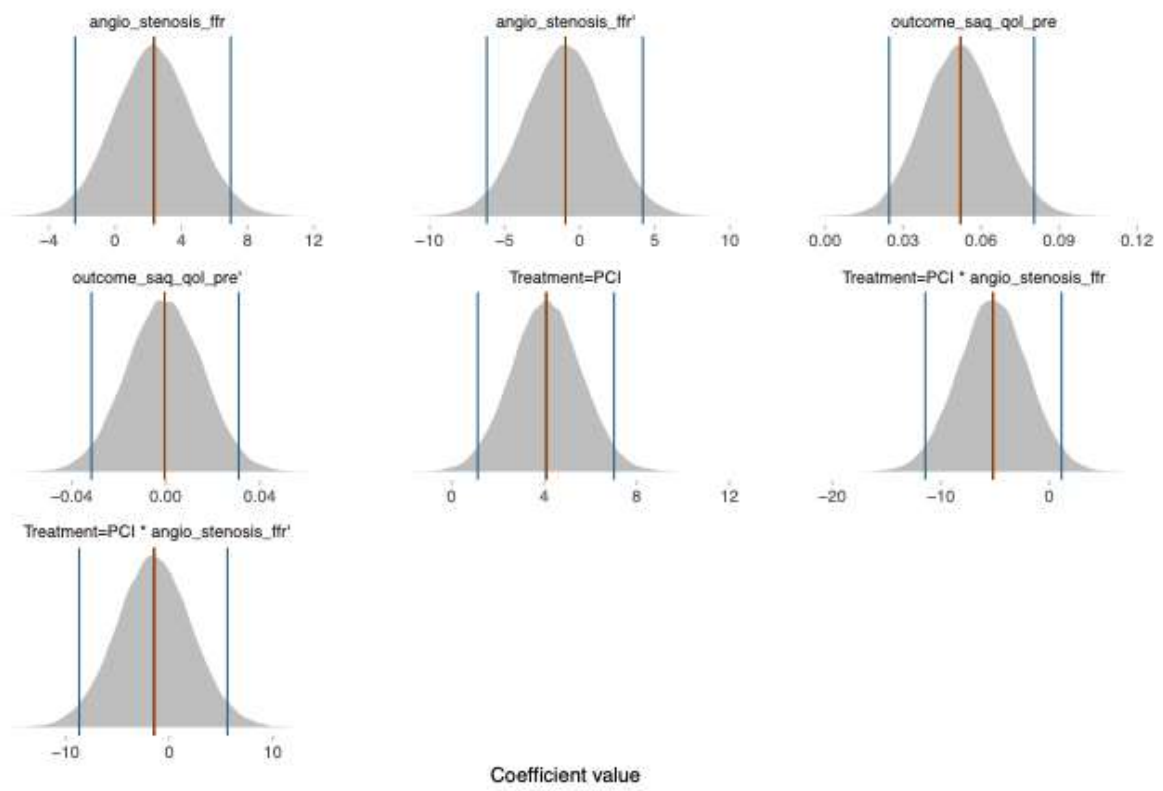
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes            |
|-------------|--|-------------------------------------|-------------------------------------|
| Obs 240     | B 0.198 [0.191, 0.204]                       | g 1.621 [1.349, 1.98]               | C 0.72 [0.709, 0.729]               |
| Draws 40000 |  | g <sub>p</sub> 0.304 [0.271, 0.343] | D <sub>xy</sub> 0.44 [0.418, 0.459] |
| Chains 4    |  | EV 0.281 [0.221, 0.353]             |                                     |
| Time 18.4s  |  | v 2.059 [1.35, 2.952]               |                                     |
| p 13        |  | vp 0.07 [0.054, 0.087]              |                                     |

|   | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|---------|----------|--------|----------|---------|---------|----------|
| outcome_saq_qol_pre   | 0.0589  | 0.0588   | 0.0154 | 0.0295   | 0.0892  | 1.0000  | 1.02     |
| outcome_saq_qol_pre'  | -0.0081 | -0.0080  | 0.0171 | -0.0417  | 0.0249  | 0.3195  | 0.99     |
| Treatment=PCI   | 6.0283  | 6.0210   | 4.4340 | -2.8531  | 14.5867 | 0.9149  | 1.00     |
| angio_stenosis_ffr  | -1.4560 | -1.5040  | 4.3008 | -9.9846  | 6.9107  | 0.3631  | 1.03     |
| angio_stenosis_ffr'   | 3.4522  | 3.4811   | 4.4101 | -5.2943  | 12.0156 | 0.7844  | 0.99     |
| rose_is_angina_random                                       | -1.7772 | -1.7854  | 2.5297 | -6.6525  | 3.2726  | 0.2382  | 1.01     |
| Treatment=PCI × angio_stenosis_ffr                          | -9.1496 | -9.1186  | 8.5176 | -26.0172 | 7.5274  | 0.1388  | 1.00     |
| Treatment=PCI × angio_stenosis_ffr'                         | -0.5632 | -0.5525  | 7.7761 | -16.0406 | 14.5546 | 0.4702  | 1.00     |
| Treatment=PCI × rose_is_angina_random                       | -2.3376 | -2.3481  | 4.7553 | -11.8302 | 6.9716  | 0.3101  | 1.01     |
| angio_stenosis_ffr × rose_is_angina_random                  | 3.5156  | 3.5272   | 5.2256 | -6.3683  | 14.1263 | 0.7514  | 0.99     |
| angio_stenosis_ffr' × rose_is_angina_random                 | -4.7275 | -4.7403  | 5.7276 | -15.7816 | 6.6832  | 0.2032  | 1.00     |
| Treatment=PCI × angio_stenosis_ffr × rose_is_angina_random  | 5.3188  | 5.3511   | 9.3648 | -13.7428 | 23.2490 | 0.7166  | 0.99     |
| Treatment=PCI × angio_stenosis_ffr' × rose_is_angina_random | -1.6363 | -1.6927  | 9.2042 | -19.3209 | 16.9587 | 0.4279  | 1.01     |

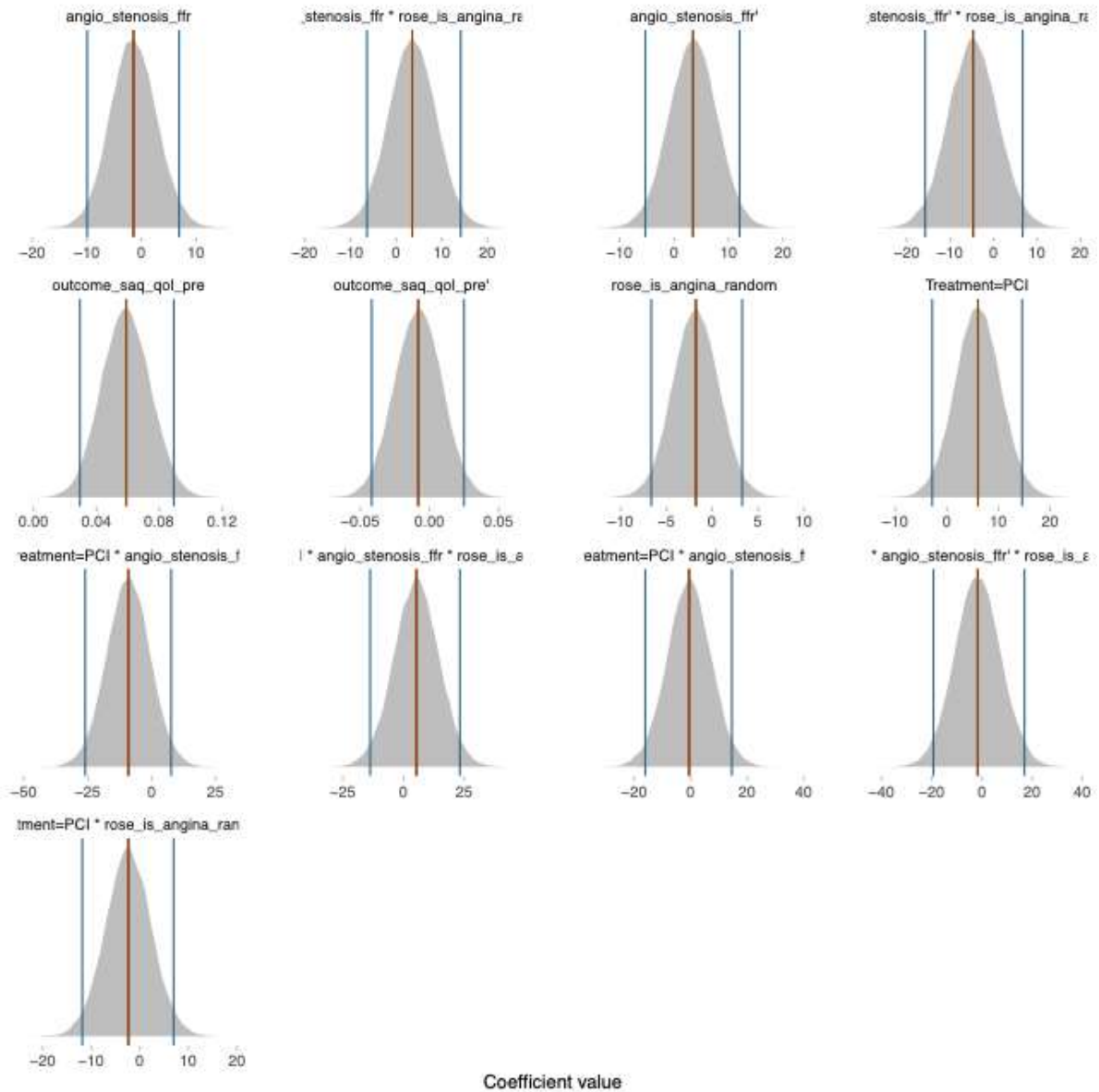
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

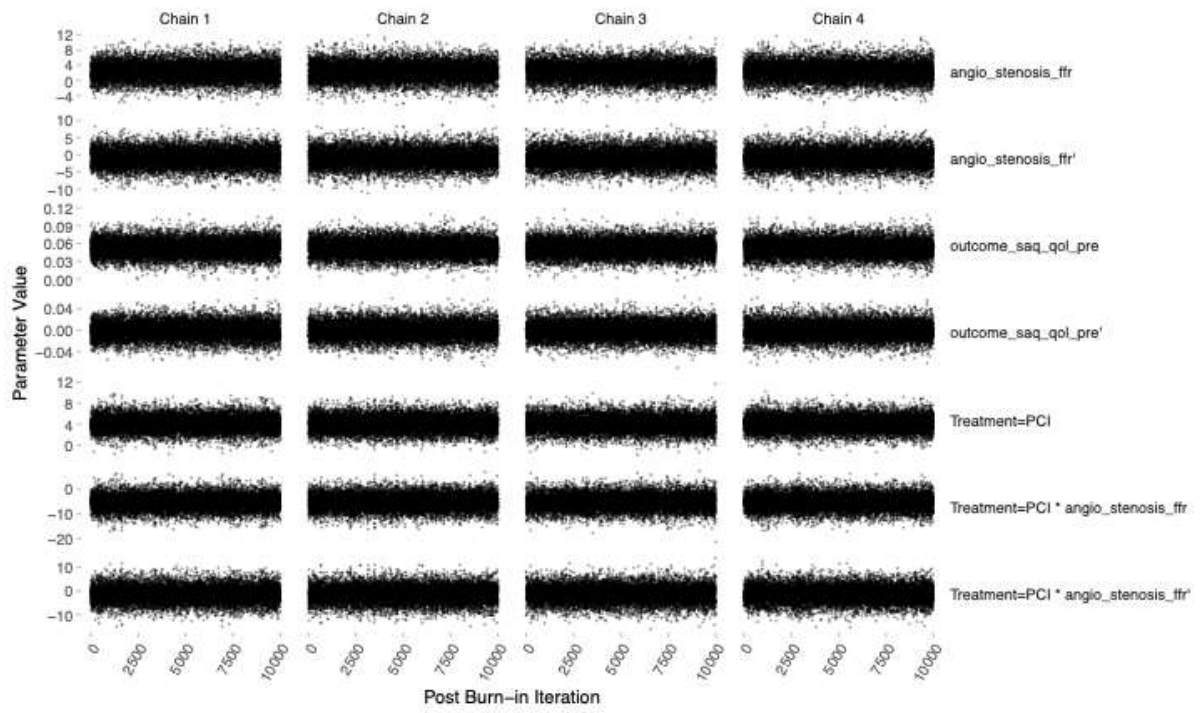
Supplementary figure S34: coefficient density plots: SAQ quality of life



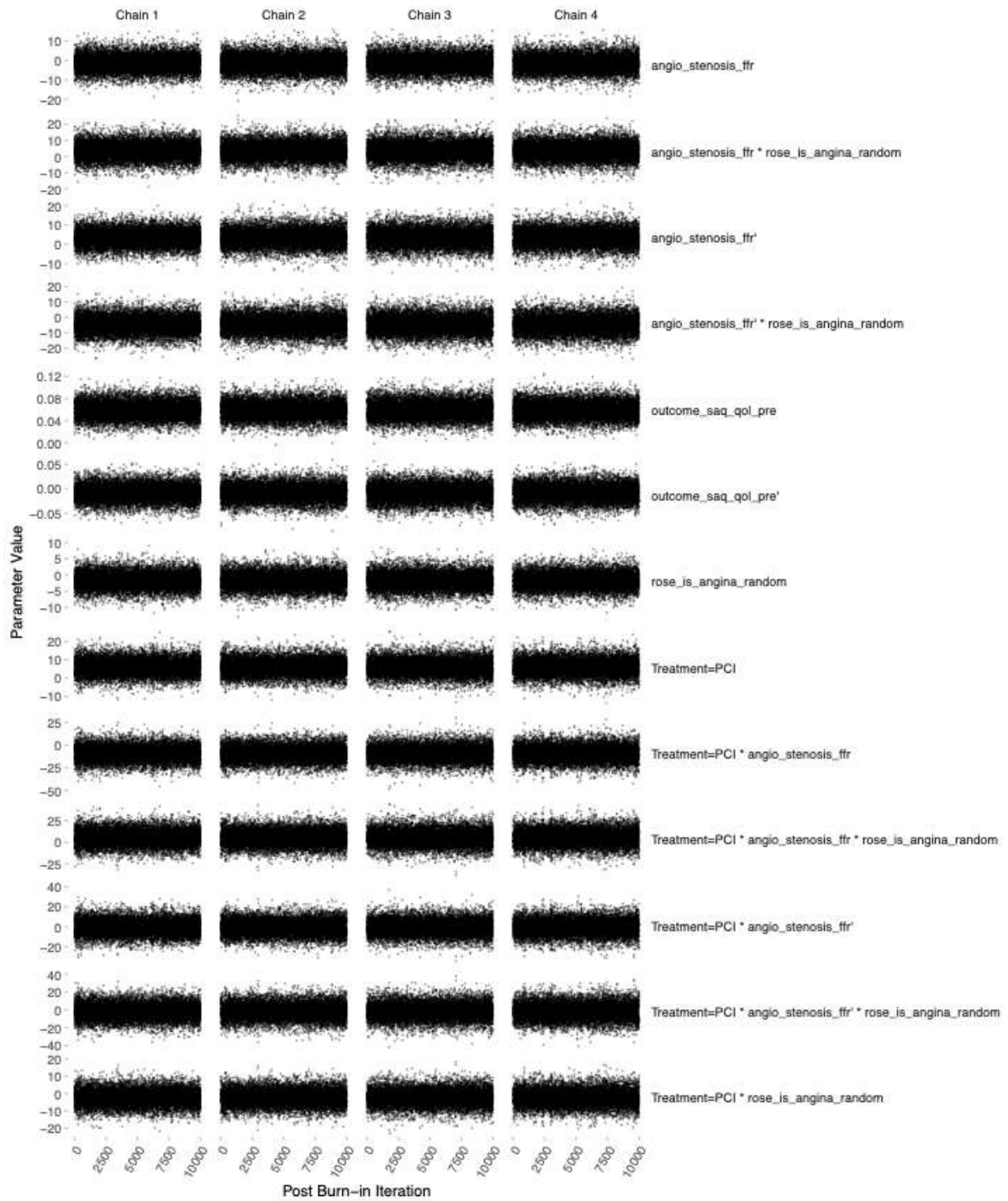
Supplementary figure S35: coefficient density plots: SAQ quality of life for Rose angina and Rose nonangina



Supplementary figure S36: chain plot of MCMC draws for SAQ quality of life



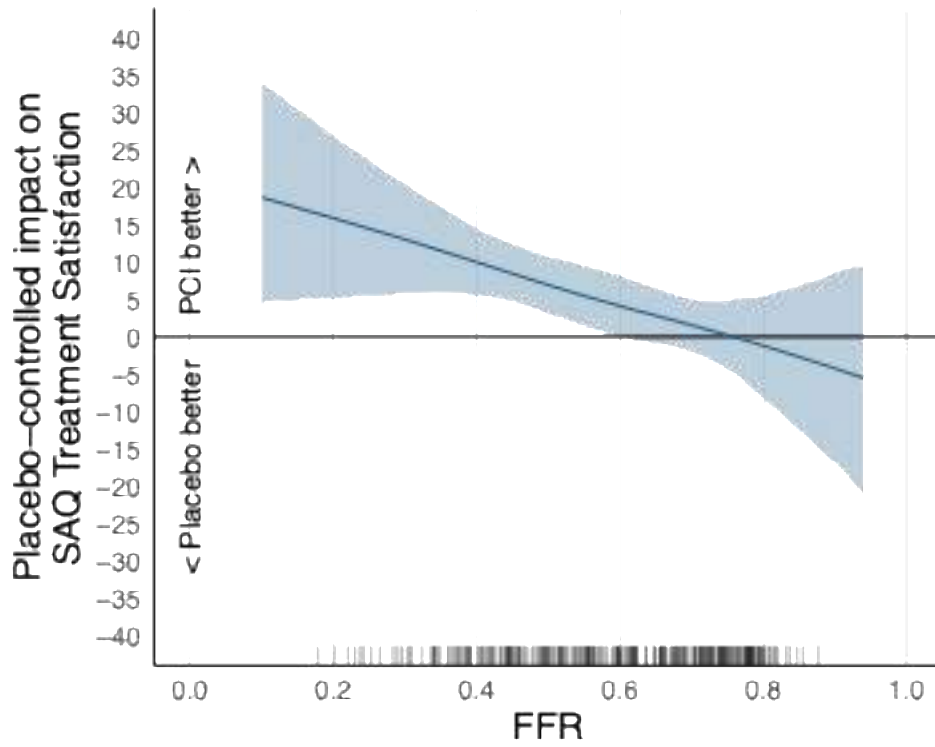
Supplementary figure S37: chain plot of MCMC draws for SAQ quality of life for Rose angina and Rose nonangina



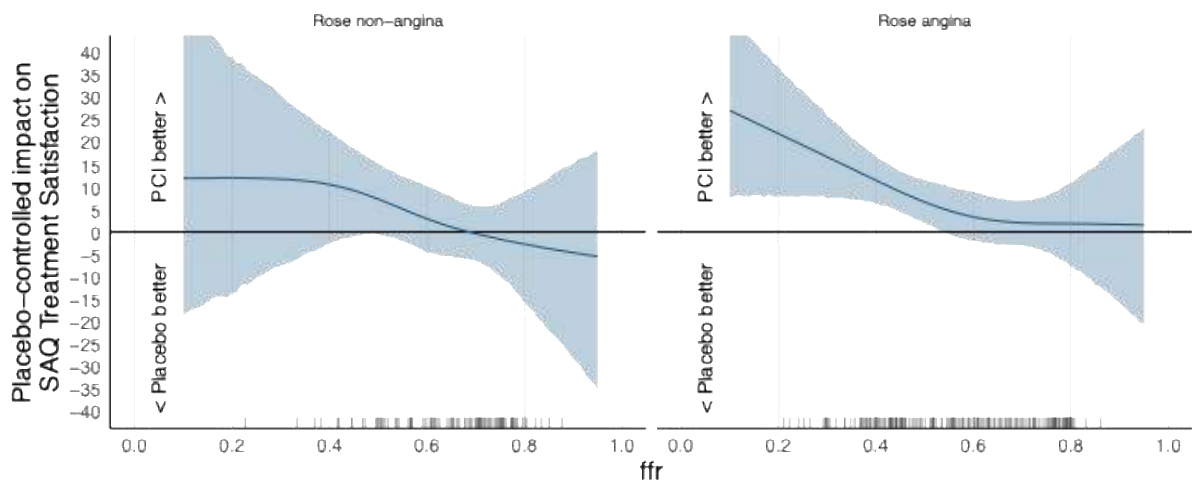


SAQ treatment satisfaction

Supplementary figure S38: result: SAQ treatment satisfaction



Supplementary figure S39: result: SAQ treatment satisfaction for Rose angina and Rose nonangina



Supplementary figure S40: Regression model and coefficients for SAQ treatment satisfaction

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_ts_post ~ rcs(outcome_saq_ts_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

|      |    |      |       |    |       |      |        |       |    |       |      |       |
|------|----|------|-------|----|-------|------|--------|-------|----|-------|------|-------|
| 6.25 | 25 | 37.5 | 43.75 | 50 | 56.25 | 62.5 | 66.667 | 68.75 | 75 | 81.25 | 87.5 | 93.75 |
| 1    | 2  | 1    | 3     | 2  | 8     | 22   | 1      | 12    | 16 | 44    | 23   | 36    |
| 100  |    |      |       |    |       |      |        |       |    |       |      |       |
| 98   |    |      |       |    |       |      |        |       |    |       |      |       |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 269     | B 0.193 [0.188, 0.199]                       | g 1.366 [1.078, 1.631]              | C 0.719 [0.708, 0.728]               |
| Draws 40000 |  | g <sub>p</sub> 0.268 [0.229, 0.307] | D <sub>xy</sub> 0.439 [0.416, 0.455] |
| Chains 4    |  | EV 0.233 [0.166, 0.294]             |                                      |
| Time 18.6s  |  | v 1.526 [0.945, 2.112]              |                                      |
| p 7         |  | vp 0.057 [0.042, 0.073]             |                                      |

|                                     | Mean β  | Median β | S.E.   | Lower    | Upper  | Pr(β>0) | Symmetry |
|-------------------------------------|---------|----------|--------|----------|--------|---------|----------|
| outcome_saq_ts_pre                  | 0.0456  | 0.0454   | 0.0129 | 0.0202   | 0.0710 | 0.9998  | 1.01     |
| outcome_saq_ts_pre'                 | 0.0213  | 0.0212   | 0.0138 | -0.0067  | 0.0477 | 0.9387  | 1.00     |
| Treatment=PCI                       | 3.8692  | 3.8654   | 1.5397 | 0.8661   | 6.8843 | 0.9945  | 1.02     |
| angio_stenosis_ffr                  | 2.6242  | 2.6292   | 2.2688 | -1.8541  | 7.0648 | 0.8777  | 1.00     |
| angio_stenosis_ffr'                 | -2.0637 | -2.0687  | 2.5922 | -7.1332  | 2.9755 | 0.2130  | 1.00     |
| Treatment=PCI × angio_stenosis_ffr  | -5.4722 | -5.4783  | 3.2645 | -11.8380 | 0.9643 | 0.0464  | 0.98     |
| Treatment=PCI × angio_stenosis_ffr' | 0.9243  | 0.9402   | 3.7582 | -6.3797  | 8.3527 | 0.5968  | 1.01     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S41: Regression model and coefficients for SAQ treatment satisfaction for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_ts_post ~ rcs(outcome_saq_ts_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|      |    |      |       |    |       |      |        |       |    |       |      |       |
|------|----|------|-------|----|-------|------|--------|-------|----|-------|------|-------|
| 6.25 | 25 | 37.5 | 43.75 | 50 | 56.25 | 62.5 | 66.667 | 68.75 | 75 | 81.25 | 87.5 | 93.75 |
| 1    | 2  | 1    | 3     | 2  | 8     | 18   | 1      | 11    | 15 | 39    | 21   | 30    |
| 100  |    |      |       |    |       |      |        |       |    |       |      |       |
| 88   |    |      |       |    |       |      |        |       |    |       |      |       |

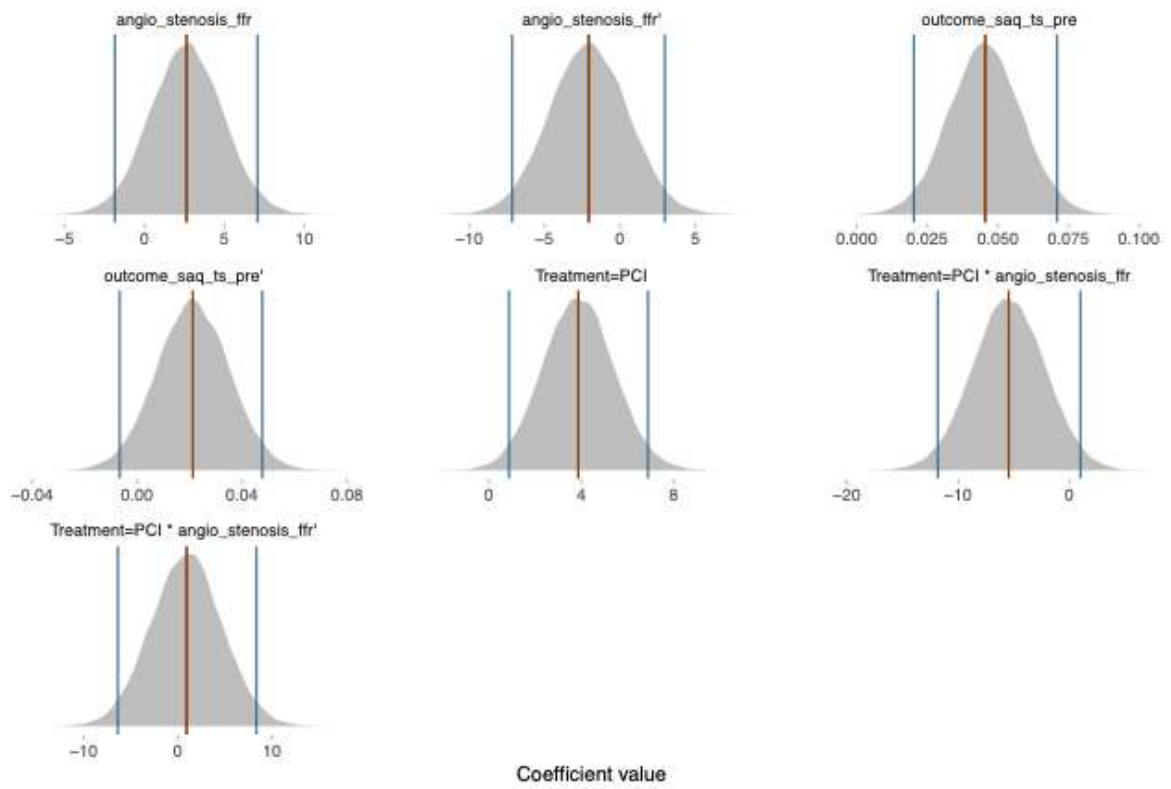
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 240     | B 0.191 [0.184, 0.199]                       | g 1.543 [1.259, 1.895]              | C 0.722 [0.708, 0.734]               |
| Draws 40000 |  | g <sub>p</sub> 0.286 [0.247, 0.327] | D <sub>xy</sub> 0.444 [0.417, 0.469] |
| Chains 4    |  | EV 0.26 [0.193, 0.323]              |                                      |
| Time 17.7s  |  | v 1.948 [1.203, 2.768]              |                                      |
| p 13        |  | vp 0.063 [0.048, 0.08]              |                                      |

|   | Mean β  | Median β | S.E.    | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|---------|----------|---------|----------|---------|---------|----------|
| outcome_saq_ts_pre  | 0.0547  | 0.0545   | 0.0137  | 0.0274   | 0.0812  | 1.0000  | 1.01     |
| outcome_saq_ts_pre'   | 0.0145  | 0.0145   | 0.0152  | -0.0151  | 0.0444  | 0.8305  | 1.00     |
| Treatment=PCI   | 5.5686  | 5.4289   | 5.2724  | -4.6363  | 15.9818 | 0.8569  | 1.09     |
| angio_stenosis_ffr  | -0.2271 | -0.1213  | 4.6941  | -9.3122  | 9.1855  | 0.4898  | 0.94     |
| angio_stenosis_ffr'   | 1.3920  | 1.3380   | 4.7840  | -7.9495  | 10.8063 | 0.6137  | 1.03     |
| rose_is_angina_random                                       | -2.2264 | -2.1790  | 2.7351  | -7.7181  | 3.0646  | 0.2054  | 0.95     |
| Treatment=PCI × angio_stenosis_ffr                          | -8.9813 | -8.7539  | 10.1480 | -29.2599 | 10.4942 | 0.1872  | 0.93     |
| Treatment=PCI × angio_stenosis_ffr'                         | 3.4160  | 3.2824   | 9.4422  | -14.5487 | 22.4294 | 0.6375  | 1.04     |
| Treatment=PCI × rose_is_angina_random                       | 0.1935  | 0.3347   | 5.5862  | -10.7623 | 11.0961 | 0.5235  | 0.93     |
| angio_stenosis_ffr × rose_is_angina_random                  | 5.5746  | 5.5015   | 5.6250  | -5.1752  | 16.9815 | 0.8422  | 1.04     |
| angio_stenosis_ffr' × rose_is_angina_random                 | -7.1326 | -7.0982  | 6.0653  | -18.7338 | 5.1296  | 0.1183  | 0.99     |
| Treatment=PCI × angio_stenosis_ffr × rose_is_angina_random  | -0.2247 | -0.4231  | 10.9563 | -21.8806 | 20.8723 | 0.4837  | 1.06     |
| Treatment=PCI × angio_stenosis_ffr' × rose_is_angina_random | 1.6739  | 1.7507   | 10.7491 | -19.4693 | 22.6115 | 0.5655  | 0.97     |

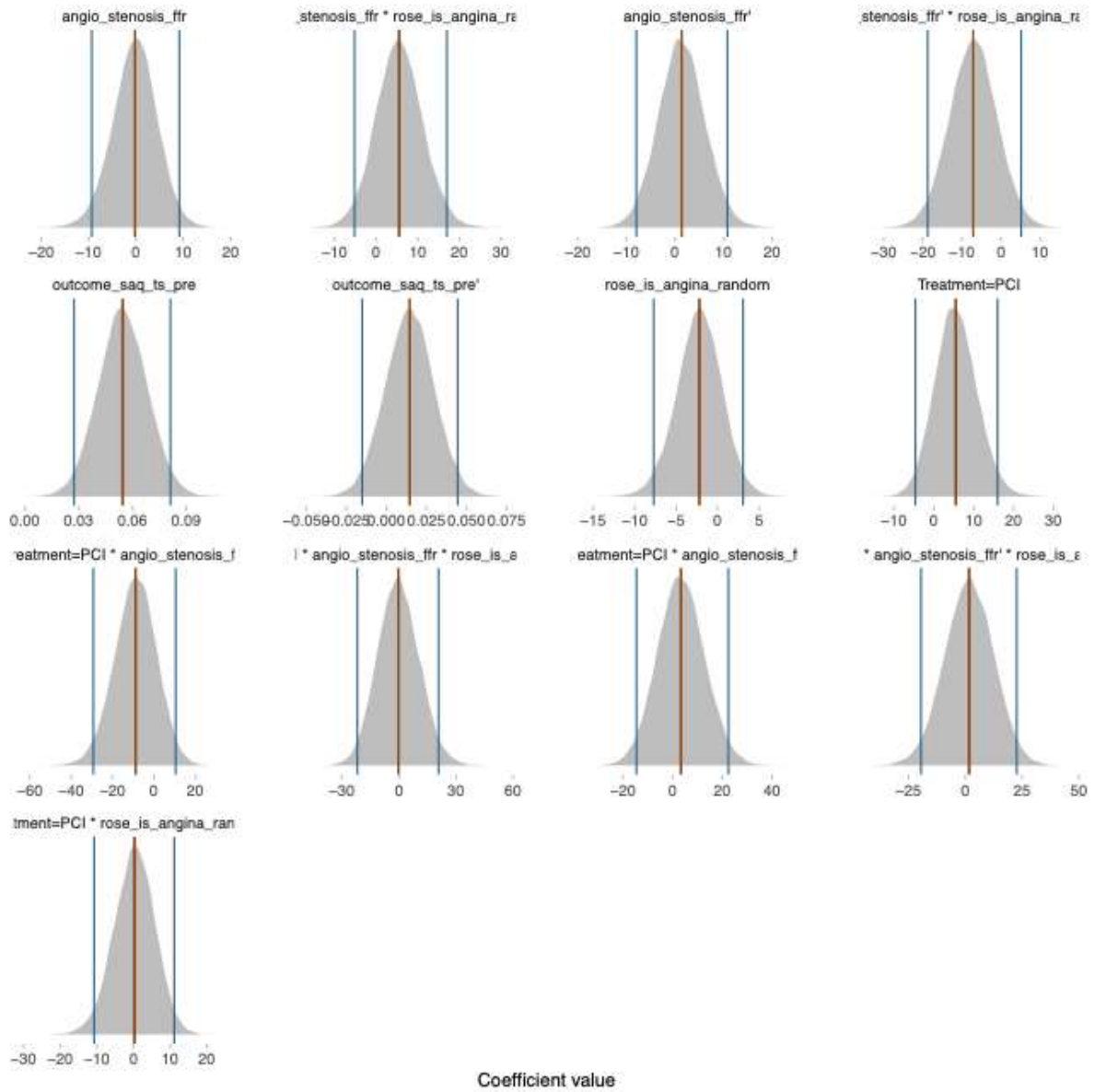
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

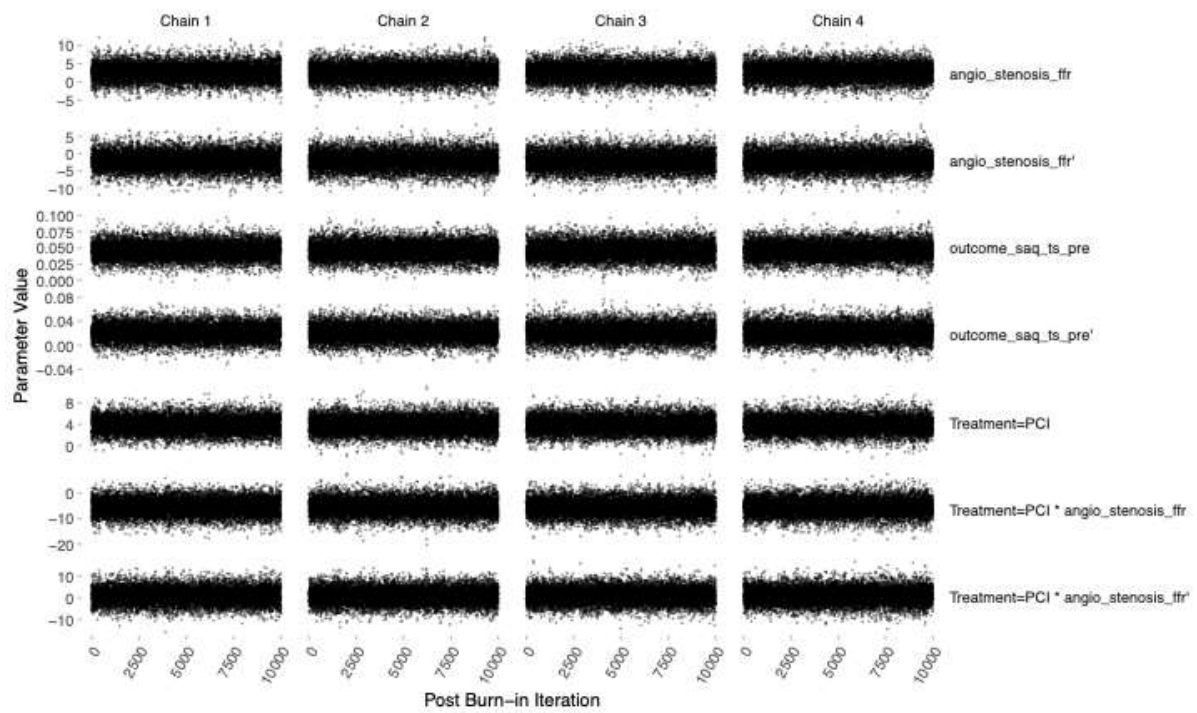
Supplementary figure S42: coefficient density plots: SAQ treatment satisfaction



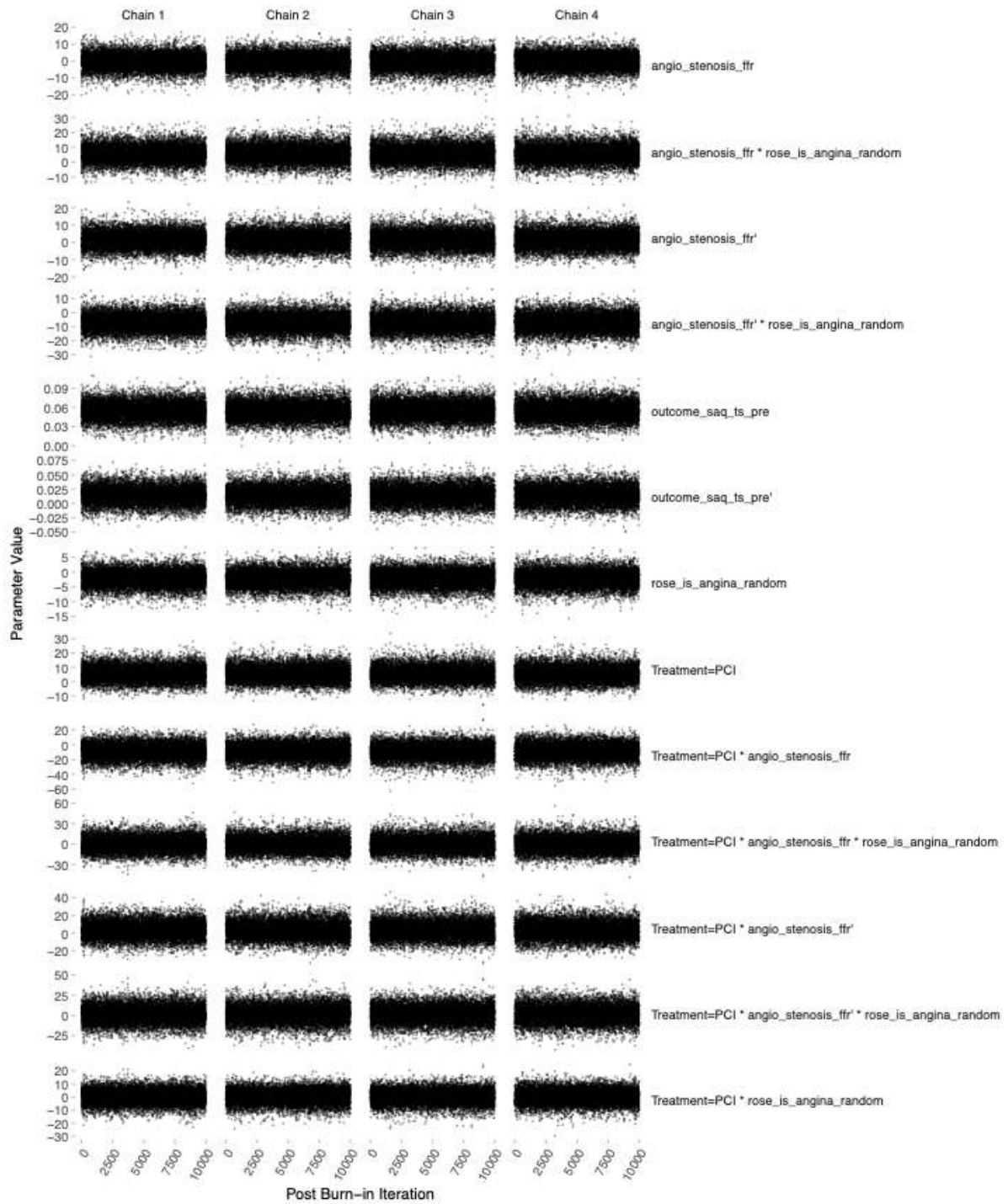
Supplementary figure S43: coefficient density plots: SAQ treatment satisfaction for Rose angina and Rose nonangina



Supplementary figure S44: chain plot of MCMC draws for SAQ treatment satisfaction

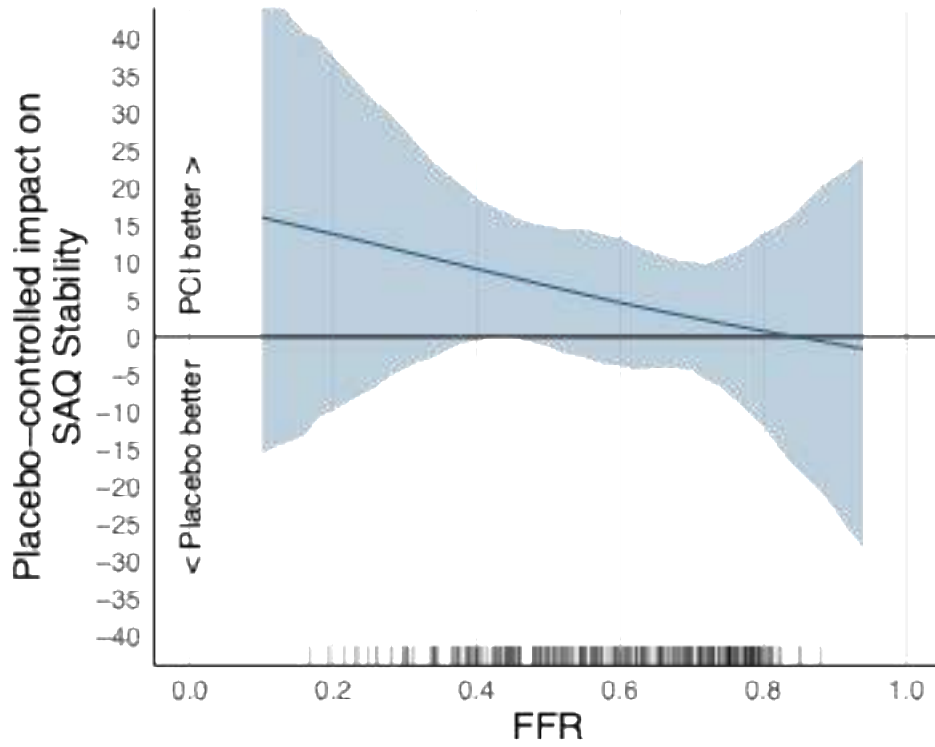


Supplementary figure S45: chain plot of MCMC draws for SAQ treatment satisfaction for Rose angina and Rose nonangina

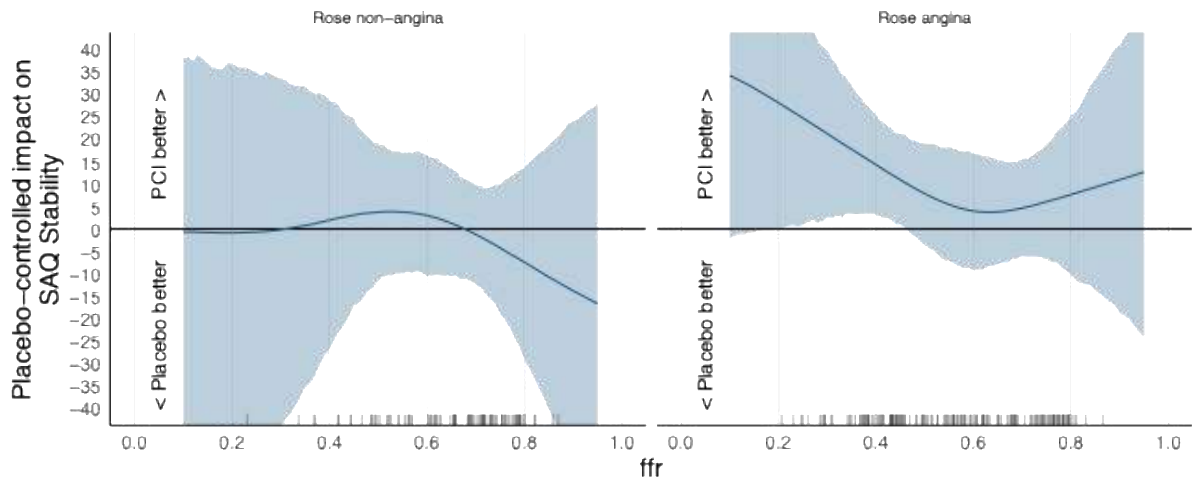


SAQ angina stability

Supplementary figure S46: result: SAQ angina stability



Supplementary figure S47: result: SAQ angina stability for Rose angina and Rose non-angina



Supplementary figure S48: Regression model and coefficients for SAQ angina stability

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
blrm(formula = outcome_saq_stab_post ~ rcs(outcome_saq_stab_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

```
0 25 50 75 100
11 29 135 44 50
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 269     | B 0.124 [0.119, 0.128]                       | g 0.446 [0.223, 0.644]              | C 0.551 [0.523, 0.577]               |
| Draws 40000 |  | g <sub>p</sub> 0.057 [0.026, 0.087] | D <sub>xy</sub> 0.103 [0.047, 0.155] |
| Chains 4    |  | EV 0.024 [0.004, 0.047]             |                                      |
| Time 14s    |  | v 0.173 [0.021, 0.31]               |                                      |
| p 7         |  | vp 0.003 [0, 0.007]                 |                                      |

|                                     | Mean β  | Median β | S.E.   | Lower   | Upper   | Pr(β>0) | Symmetry |
|-------------------------------------|---------|----------|--------|---------|---------|---------|----------|
| y≥25                                | 1.8524  | 1.8473   | 1.2631 | -0.6463 | 4.2926  | 0.9295  | 1.03     |
| y≥50                                | 0.3989  | 0.3917   | 1.2425 | -2.0548 | 2.8204  | 0.6222  | 1.02     |
| y≥75                                | -2.0350 | -2.0340  | 1.2560 | -4.4386 | 0.5014  | 0.0522  | 1.01     |
| y≥100                               | -2.9031 | -2.8986  | 1.2618 | -5.3973 | -0.4371 | 0.0109  | 1.00     |
| outcome_saq_stab_pre                | 0.0034  | 0.0034   | 0.0094 | -0.0148 | 0.0218  | 0.6400  | 1.02     |
| outcome_saq_stab_pre'               | 0.0008  | 0.0008   | 0.0106 | -0.0199 | 0.0218  | 0.5298  | 0.98     |
| Treatment=PCI                       | 1.4002  | 1.4027   | 1.5840 | -1.7012 | 4.5010  | 0.8112  | 1.00     |
| angio_stenosis_ffr                  | 2.1947  | 2.2041   | 2.5767 | -2.8832 | 7.1925  | 0.8028  | 0.99     |
| angio_stenosis_ffr'                 | -2.1403 | -2.1452  | 2.8844 | -7.8886 | 3.3906  | 0.2293  | 1.01     |
| Treatment=PCI × angio_stenosis_ffr  | -1.7978 | -1.8014  | 3.3824 | -8.3988 | 4.7986  | 0.2960  | 1.00     |
| Treatment=PCI × angio_stenosis_ffr' | 0.2554  | 0.2678   | 3.8898 | -7.4591 | 7.7364  | 0.5271  | 1.01     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S49: Regression model and coefficients for SAQ angina stability for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
blrm(formula = outcome_saq_stab_post ~ rcs(outcome_saq_stab_pre,
3) + Treatment + rcs(angio_stenosis_ffr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

```
0 25 50 75 100
18 27 118 38 47
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 240     | B 0.123 [0.116, 0.129]                       | g 0.725 [0.489, 0.954]              | C 0.584 [0.557, 0.608]               |
| Draws 40000 |  | g <sub>p</sub> 0.093 [0.051, 0.128] | D <sub>xy</sub> 0.169 [0.114, 0.217] |
| Chains 4    |  | EV 0.062 [0.021, 0.107]             |                                      |
| Time 13.5s  |  | v 0.455 [0.195, 0.711]              |                                      |
| p 13        |  | vp 0.008 [0.002, 0.016]             |                                      |

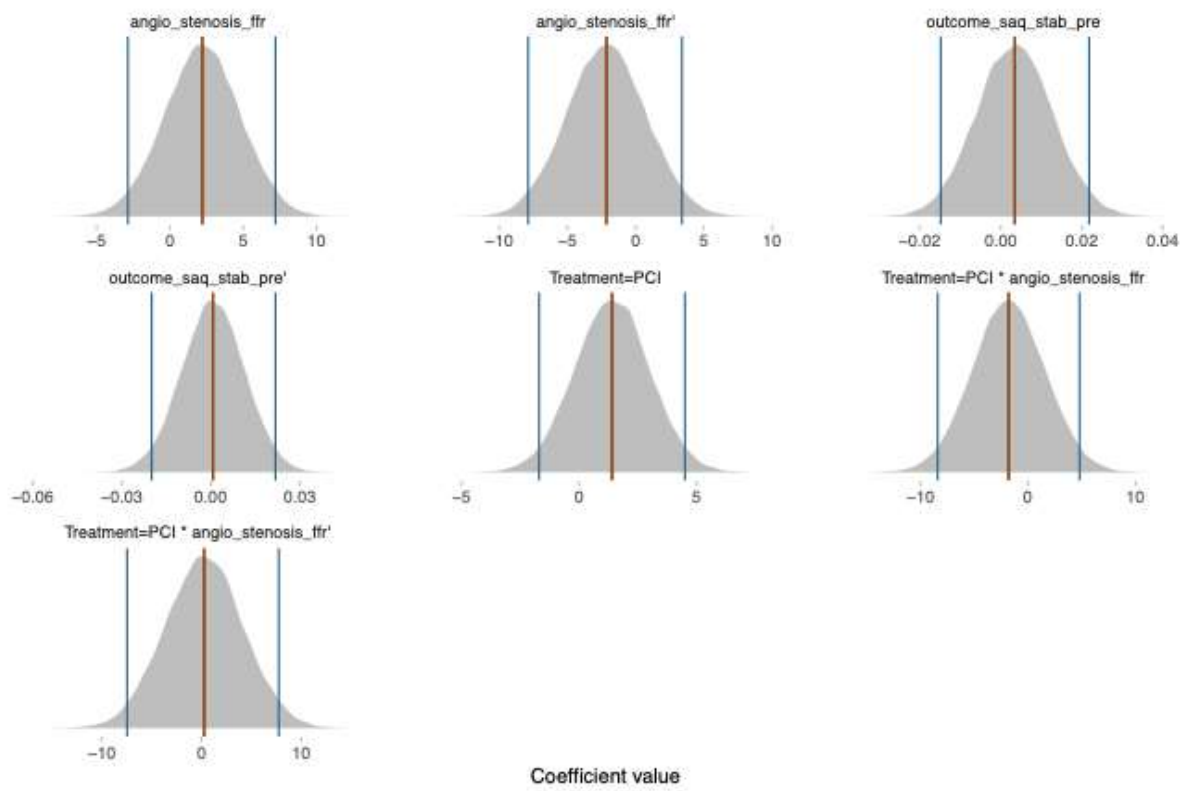
|   | Mean β   | Median β | S.E.    | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|----------|----------|---------|----------|---------|---------|----------|
| y≥25  | 7.4512   | 7.3926   | 2.5201  | 2.5138   | 12.4203 | 0.9986  | 1.06     |
| y≥50  | 5.9255   | 5.8689   | 2.5075  | 1.0921   | 10.9725 | 0.9922  | 1.06     |
| y≥75  | 3.4405   | 3.3848   | 2.4943  | -1.4980  | 8.3326  | 0.9206  | 1.06     |
| y≥100   | 2.5942   | 2.5357   | 2.4909  | -2.2599  | 7.5498  | 0.8564  | 1.06     |
| outcome_saq_stab_pre  | 0.0079   | 0.0079   | 0.0102  | -0.0124  | 0.0277  | 0.7798  | 1.00     |
| outcome_saq_stab_pre'                                       | -0.0018  | -0.0017  | 0.0116  | -0.0244  | 0.0209  | 0.4392  | 1.00     |
| Treatment=PCI   | -0.4731  | -0.5213  | 4.7558  | -10.0147 | 8.7377  | 0.4543  | 1.03     |
| angio_stenosis_ffr  | -8.8361  | -8.7188  | 5.0069  | -18.6825 | 0.9056  | 0.0359  | 0.95     |
| angio_stenosis_ffr'   | 7.6304   | 7.5250   | 5.1134  | -2.4351  | 17.5331 | 0.9355  | 1.04     |
| rose_is_angina_random                                       | -8.1870  | -8.1463  | 2.9356  | -13.9496 | -2.4223 | 0.0025  | 0.95     |
| Treatment=PCI × angio_stenosis_ffr                          | 1.5979   | 1.6745   | 9.2443  | -16.8362 | 19.5334 | 0.5760  | 0.97     |
| Treatment=PCI × angio_stenosis_ffr'                         | -3.8068  | -3.8185  | 8.7554  | -21.0269 | 13.2974 | 0.3298  | 1.01     |
| Treatment=PCI × rose_is_angina_random                       | 3.8515   | 3.8925   | 5.1149  | -6.1378  | 14.0544 | 0.7782  | 0.99     |
| angio_stenosis_ffr × rose_is_angina_random                  | 16.3458  | 16.2617  | 6.0798  | 4.5082   | 28.2484 | 0.9970  | 1.04     |
| angio_stenosis_ffr' × rose_is_angina_random                 | -15.8519 | -15.8049 | 6.5651  | -28.5679 | -2.9670 | 0.0070  | 0.98     |
| Treatment=PCI × angio_stenosis_ffr × rose_is_angina_random  | -7.2830  | -7.3242  | 10.1641 | -27.8207 | 12.2709 | 0.2340  | 1.01     |
| Treatment=PCI × angio_stenosis_ffr' × rose_is_angina_random | 8.6861   | 8.6464   | 10.2491 | -11.3342 | 28.9225 | 0.8019  | 1.00     |

Contrasts Given Priors

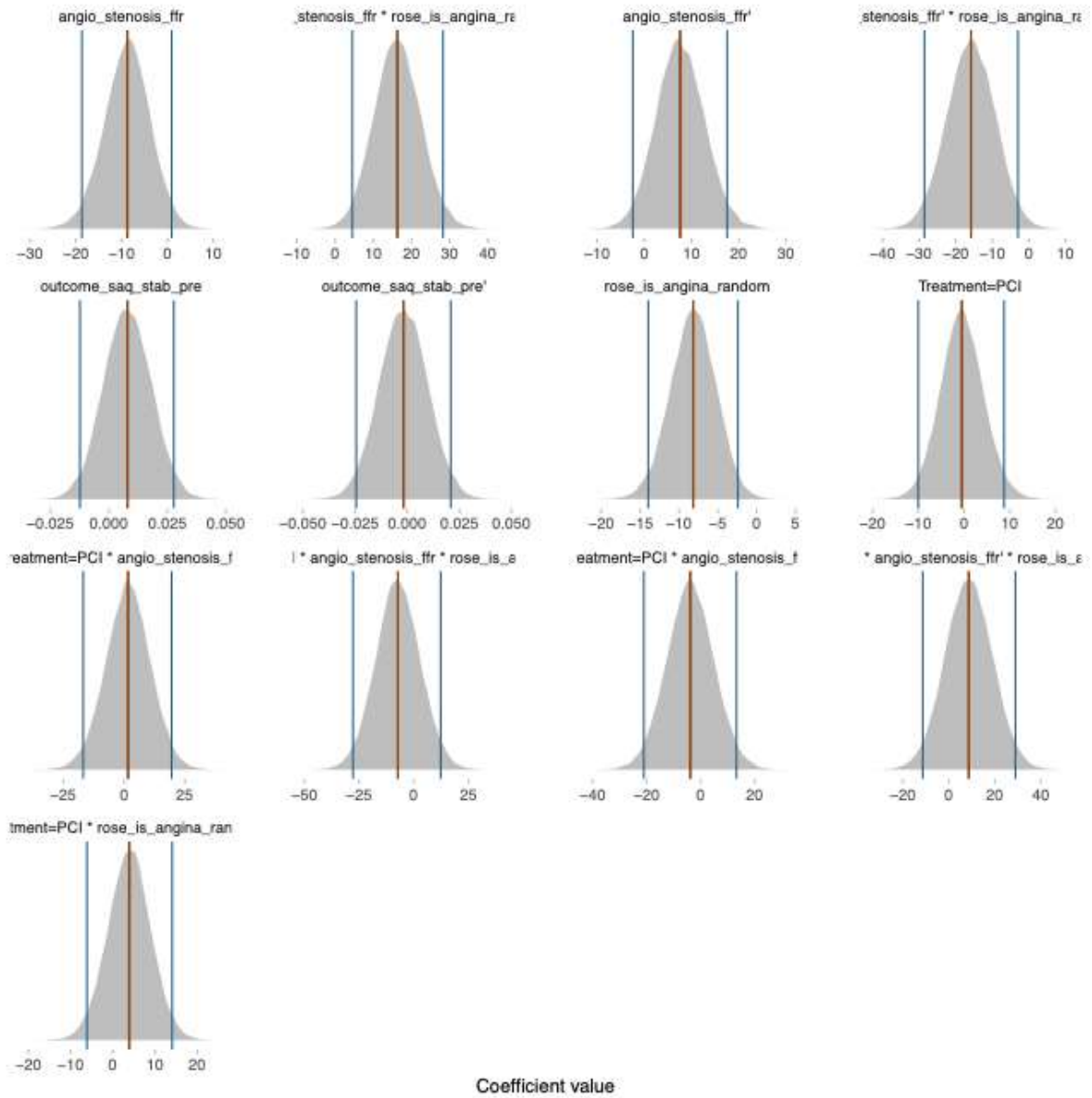
```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```



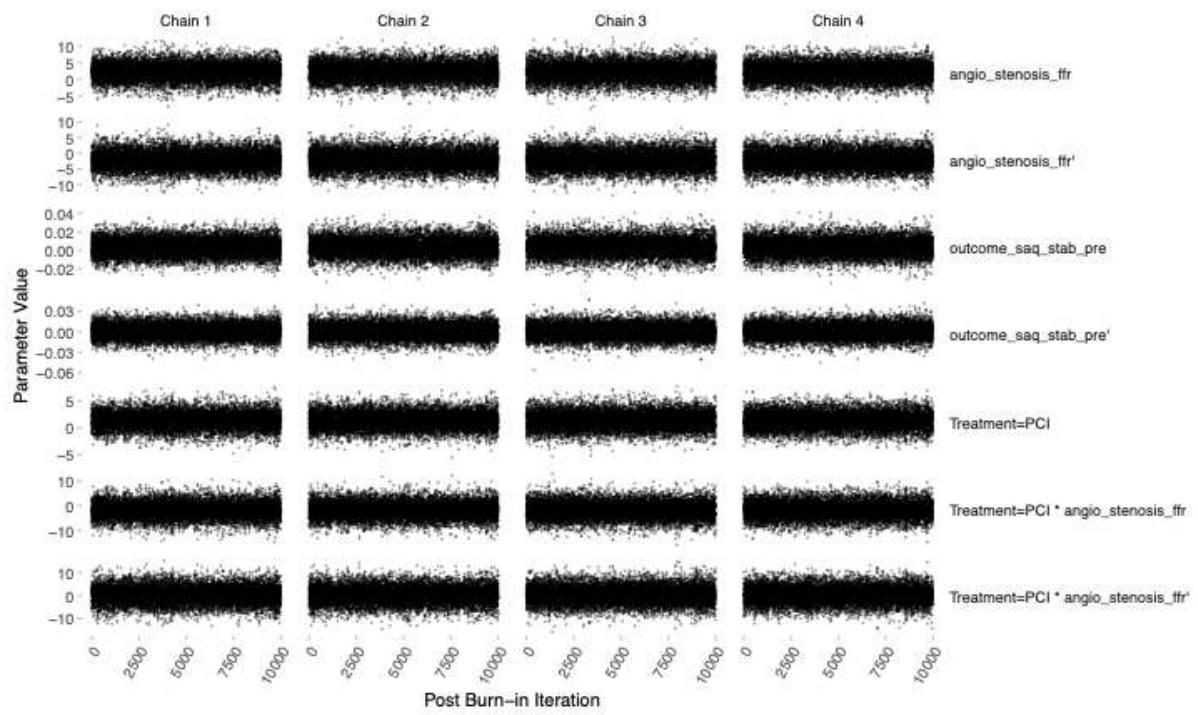
Supplementary figure S50: coefficient density plots: SAQ angina stability



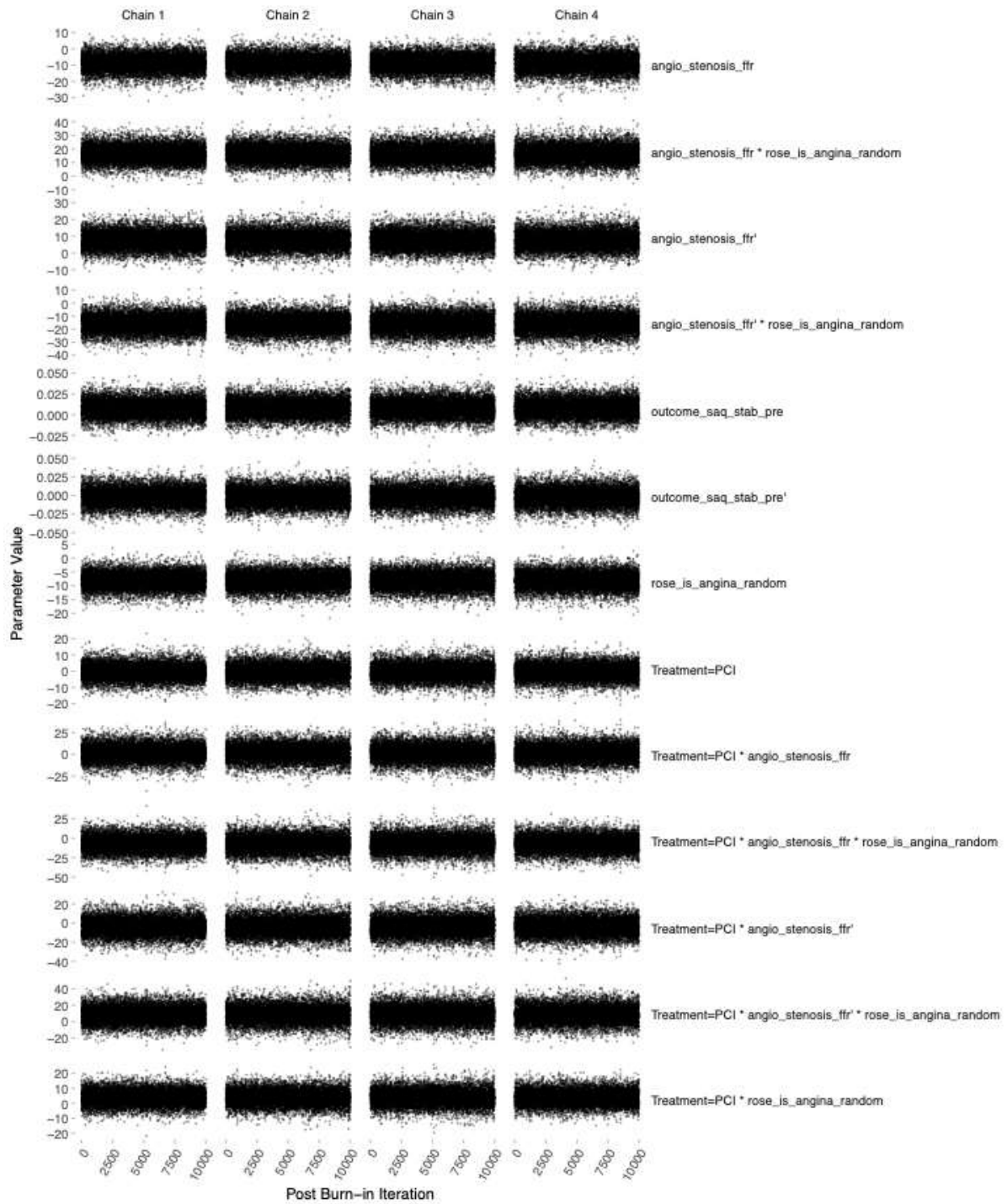
Supplementary figure S51: coefficient density plots: SAQ angina stability for Rose angina and Rose nonangina



Supplementary figure S52: chain plot of MCMC draws for SAQ angina stability

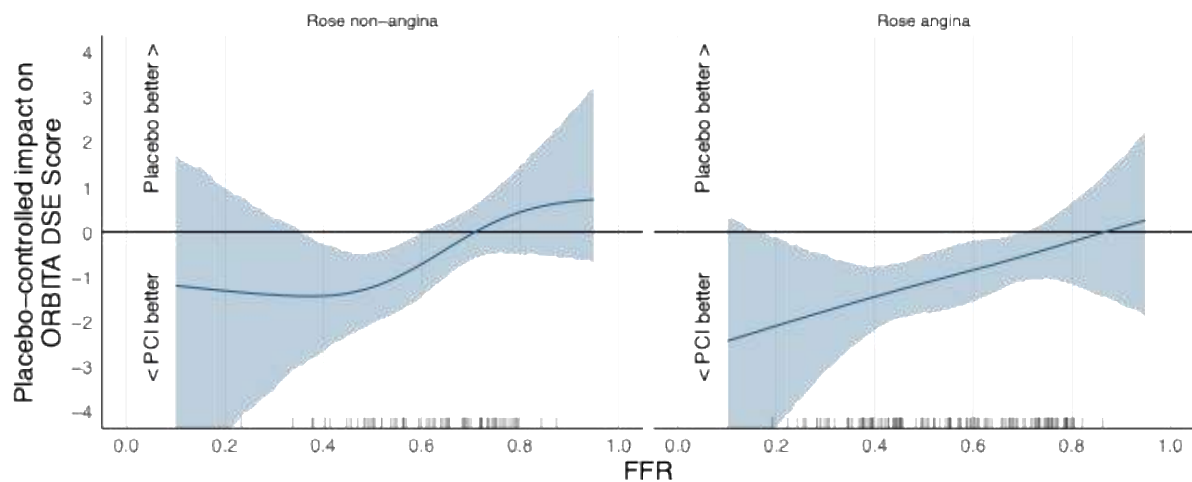


Supplementary figure S53: chain plot of MCMC draws for SAQ angina stability for Rose angina and Rose nonangina



## Dobutamine stress echocardiography (DSE) score

Supplementary figure S54: result: DSE score for Rose angina and Rose nonangina



Supplementary figure S55: Regression model and coefficients for DSE score

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.079 for Intercepts

```
blrm(formula = orbita_dse_score_fu ~ rcs(orbita_dse_score_rand,
3) + Treatment * rcs(angio_stenosis_ffr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

#### Frequencies of Responses

|       |       |       |       |       |       |       |        |       |       |       |       |       |   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|---|
|       | 0     | 0.167 | 0.333 | 0.5   | 0.667 | 0.833 | 1      | 1.167 | 1.333 | 1.5   | 1.667 | 1.833 | 2 |
| 53    | 11    | 17    | 18    | 13    | 11    | 11    | 7      | 10    | 7     | 8     | 1     | 4     | 4 |
| 2.167 | 2.333 | 2.5   | 2.667 | 2.833 | 3     | 3.167 | 3.333  | 3.5   | 3.667 | 4.333 | 4.667 | 5     | 5 |
| 5     | 3     | 2     | 2     | 5     | 2     | 2     | 3      | 1     | 1     | 1     | 3     | 3     | 3 |
| 5.167 | 5.667 | 5.833 | 6.167 | 6.333 | 7.667 | 9.833 | 11.333 |       |       |       |       |       |   |
| 1     | 1     | 2     | 1     | 1     | 1     | 1     | 1      |       |       |       |       |       |   |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes                | Rank Discrim.<br>Indexes                   |
|-------------|--|--|--|
| Obs 213     | B 0.221 [0.216, 0.228]                       | <i>g</i> 1.284 [0.987, 1.55]             | <i>C</i> 0.669 [0.658, 0.677]              |
| Draws 40000 |  | <i>g<sub>p</sub></i> 0.25 [0.205, 0.286] | <i>D<sub>xy</sub></i> 0.339 [0.315, 0.355] |
| Chains 4    |  | EV 0.194 [0.139, 0.255]                  |  |
| Time 34.5s  |  | <i>v</i> 1.403 [0.833, 2.042]            |  |
| <i>p</i> 7  |  | <i>vp</i> 0.048 [0.035, 0.064]           |  |

|                                     | Mean $\beta$ | Median $\beta$ | S.E.   | Lower   | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|-------------------------------------|--------------|----------------|--------|---------|---------|-------------------|----------|
| orbita_dse_score_rand               | 0.4621       | 0.4619         | 0.2255 | 0.0142  | 0.8993  | 0.9798            | 1.01     |
| orbita_dse_score_rand'              | -0.2021      | -0.2070        | 0.4961 | -1.1621 | 0.7772  | 0.3397            | 1.01     |
| Treatment=PCI                       | -3.6711      | -3.6671        | 1.6551 | -6.9447 | -0.4450 | 0.0133            | 1.00     |
| angio_stenosis_ffr                  | -1.7101      | -1.7182        | 2.8414 | -7.2052 | 3.9667  | 0.2716            | 1.00     |
| angio_stenosis_ffr'                 | -3.1794      | -3.1641        | 3.3882 | -9.8169 | 3.4976  | 0.1739            | 0.99     |
| Treatment=PCI x angio_stenosis_ffr  | 3.7392       | 3.7385         | 3.5348 | -3.3577 | 10.4681 | 0.8566            | 1.01     |
| Treatment=PCI x angio_stenosis_ffr' | 3.2813       | 3.2998         | 4.2636 | -4.9904 | 11.6070 | 0.7792            | 1.00     |

#### Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S56: Regression model and coefficients for DSE score for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.079 for Intercepts

```
blrm(formula = orbita_dse_score_fu ~ rcs(orbita_dse_score_rand,
3) + Treatment * rcs(angio_stenosis_ffr, 3) * rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|       |       |       |       |       |       |       |        |       |       |       |       |   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|---|
| 0     | 0.167 | 0.333 | 0.5   | 0.667 | 0.833 | 1     | 1.167  | 1.333 | 1.5   | 1.667 | 1.833 | 2 |
| 44    | 7     | 16    | 16    | 12    | 18    | 10    | 6      | 9     | 6     | 6     | 1     | 4 |
| 2.167 | 2.333 | 2.5   | 2.667 | 2.833 | 3     | 3.167 | 3.333  | 3.5   | 3.667 | 4.333 | 4.667 | 5 |
| 5     | 3     | 2     | 2     | 5     | 2     | 2     | 2      | 1     | 1     | 1     | 3     | 3 |
| 5.167 | 5.667 | 5.833 | 6.167 | 6.333 | 7.667 | 9.833 | 11.333 |       |       |       |       |   |
| 1     | 1     | 2     | 1     | 1     | 1     | 1     | 1      |       |       |       |       |   |

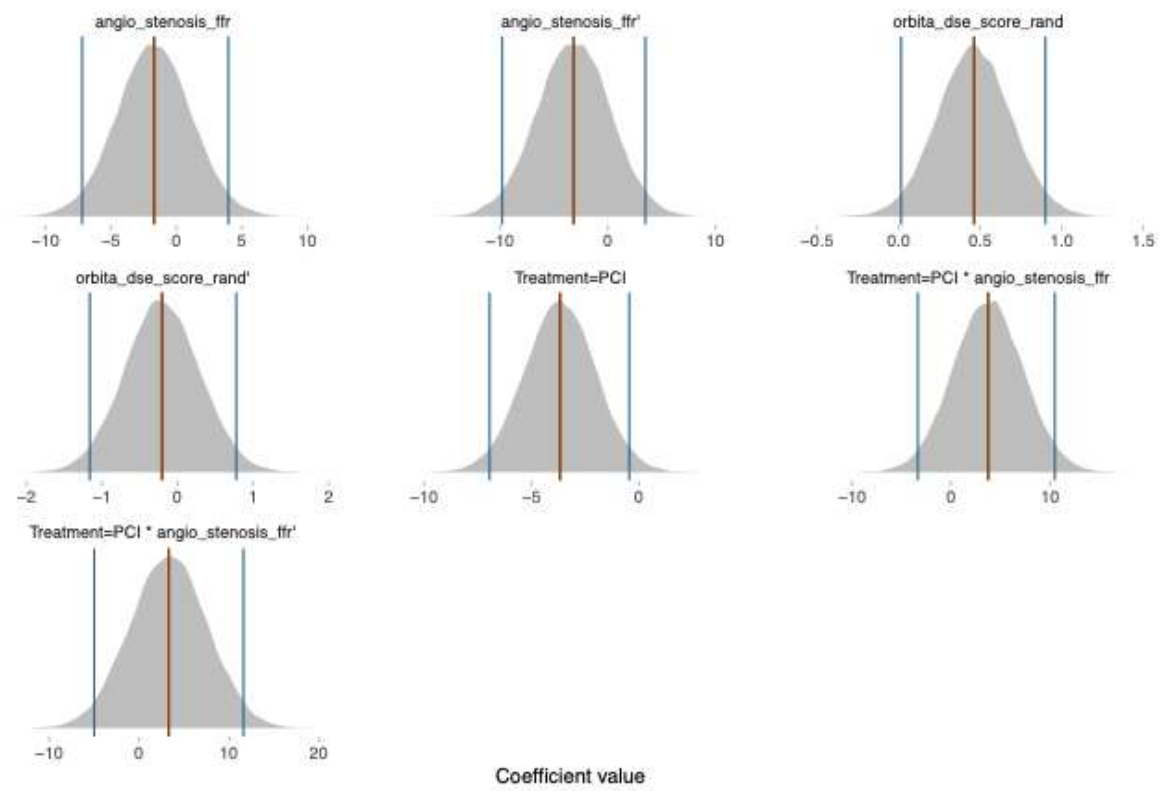
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes          | Rank Discrim.<br>Indexes             |
|-------------|--|------------------------------------|--------------------------------------|
| Obs 188     | B 0.22 [0.21, 0.229]                         | g 1.379 [1.068, 1.662]             | C 0.669 [0.653, 0.683]               |
| Draws 40000 |  | g <sub>p</sub> 0.26 [0.219, 0.299] | D <sub>xy</sub> 0.337 [0.305, 0.367] |
| Chains 4    |  | EV 0.211 [0.152, 0.272]            |                                      |
| Time 39s    |  | v 1.594 [0.91, 2.251]              |                                      |
| p 13        |  | vp 0.052 [0.036, 0.066]            |                                      |

|   | Mean β  | Median β | S.E.    | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|---------|----------|---------|----------|---------|---------|----------|
| orbita_dse_score_rand                                       | 0.4534  | 0.4529   | 0.2373  | -0.0045  | 0.9257  | 0.9724  | 1.01     |
| orbita_dse_score_rand'                                      | -0.2319 | -0.2338  | 0.5751  | -1.3859  | 0.8711  | 0.3411  | 1.00     |
| Treatment=PCI   | -5.5205 | -5.4611  | 4.9397  | -15.1753 | 4.1878  | 0.1258  | 0.95     |
| angio_stenosis_ffr  | 1.5010  | 1.5073   | 4.5060  | -7.3915  | 10.3601 | 0.6354  | 0.98     |
| angio_stenosis_ffr'   | -7.4467 | -7.4054  | 5.2258  | -18.2409 | 2.4187  | 0.0755  | 0.98     |
| rose_is_angina_random                                       | 2.1466  | 2.1524   | 2.8180  | -3.3775  | 7.7011  | 0.7802  | 0.98     |
| Treatment=PCI × angio_stenosis_ffr                          | 7.2057  | 7.1188   | 9.6749  | -11.7518 | 26.2195 | 0.7727  | 1.04     |
| Treatment=PCI × angio_stenosis_ffr'                         | 1.9435  | 1.9822   | 9.2778  | -16.3151 | 19.9634 | 0.5859  | 0.99     |
| Treatment=PCI × rose_is_angina_random                       | 1.9679  | 1.8885   | 5.3862  | -8.5918  | 12.5334 | 0.6400  | 1.05     |
| angio_stenosis_ffr × rose_is_angina_random                  | -4.8643 | -4.8916  | 5.9645  | -16.5745 | 6.7869  | 0.2044  | 1.01     |
| angio_stenosis_ffr' × rose_is_angina_random                 | 7.9413  | 7.9801   | 7.0732  | -6.1479  | 21.4957 | 0.8682  | 0.99     |
| Treatment=PCI × angio_stenosis_ffr × rose_is_angina_random  | -3.8483 | -3.7040  | 10.8224 | -24.5829 | 17.4524 | 0.3649  | 0.97     |
| Treatment=PCI × angio_stenosis_ffr' × rose_is_angina_random | -0.5812 | -0.6357  | 11.1125 | -22.1371 | 21.2846 | 0.4777  | 1.02     |

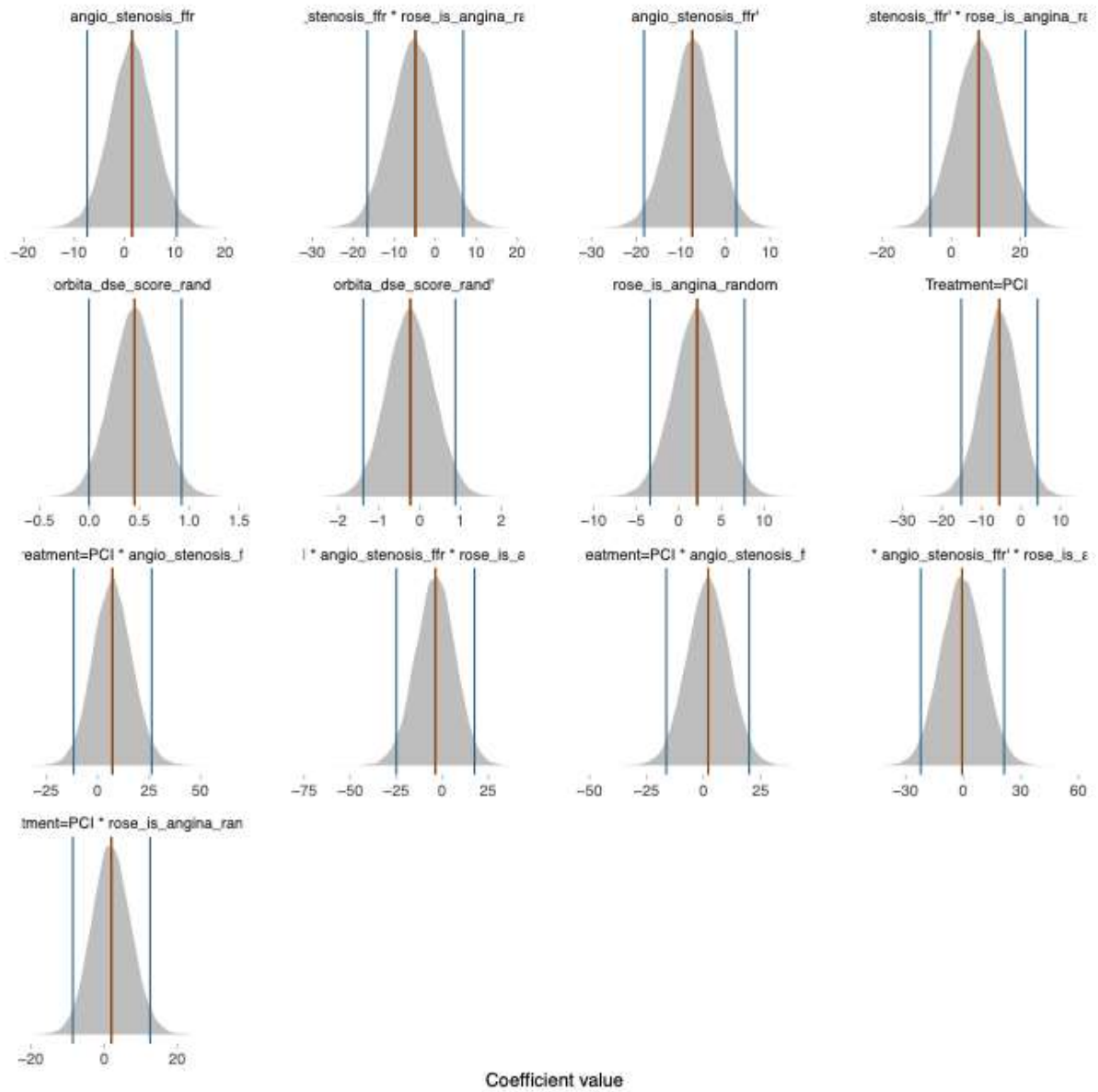
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127683599)
```

Supplementary figure S57: coefficient density plots: DSE score

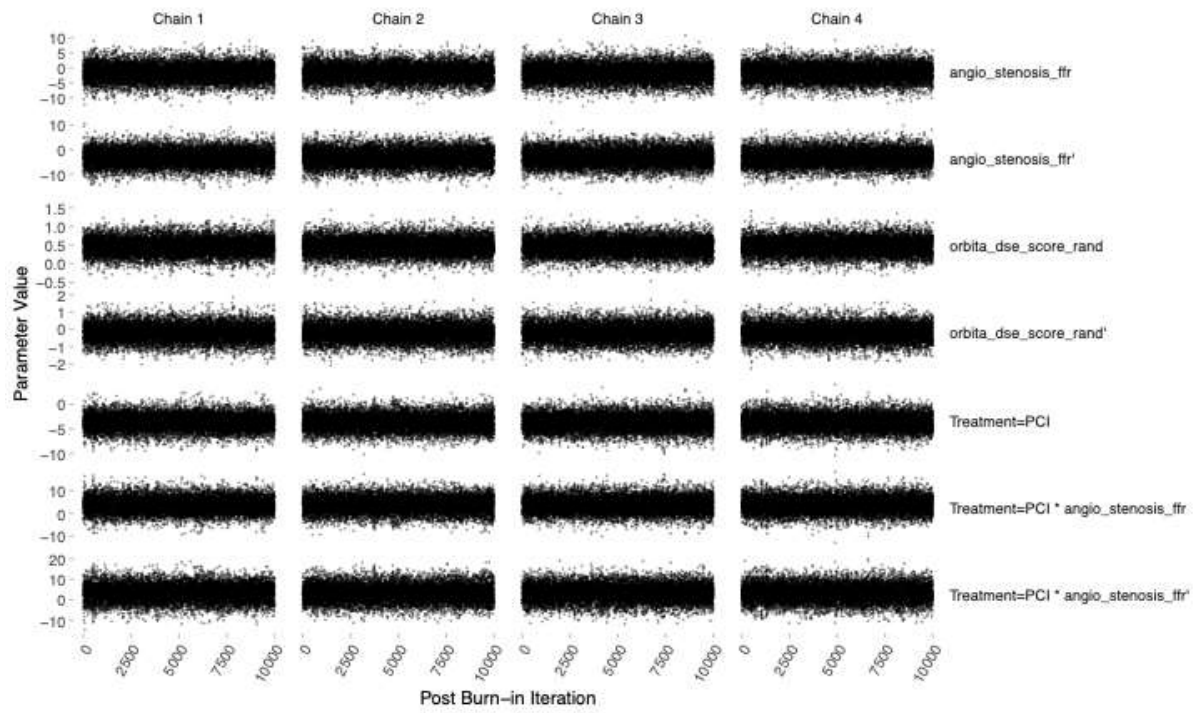


Supplementary figure S58: coefficient density plots: DSE score for Rose angina and Rose nonangina

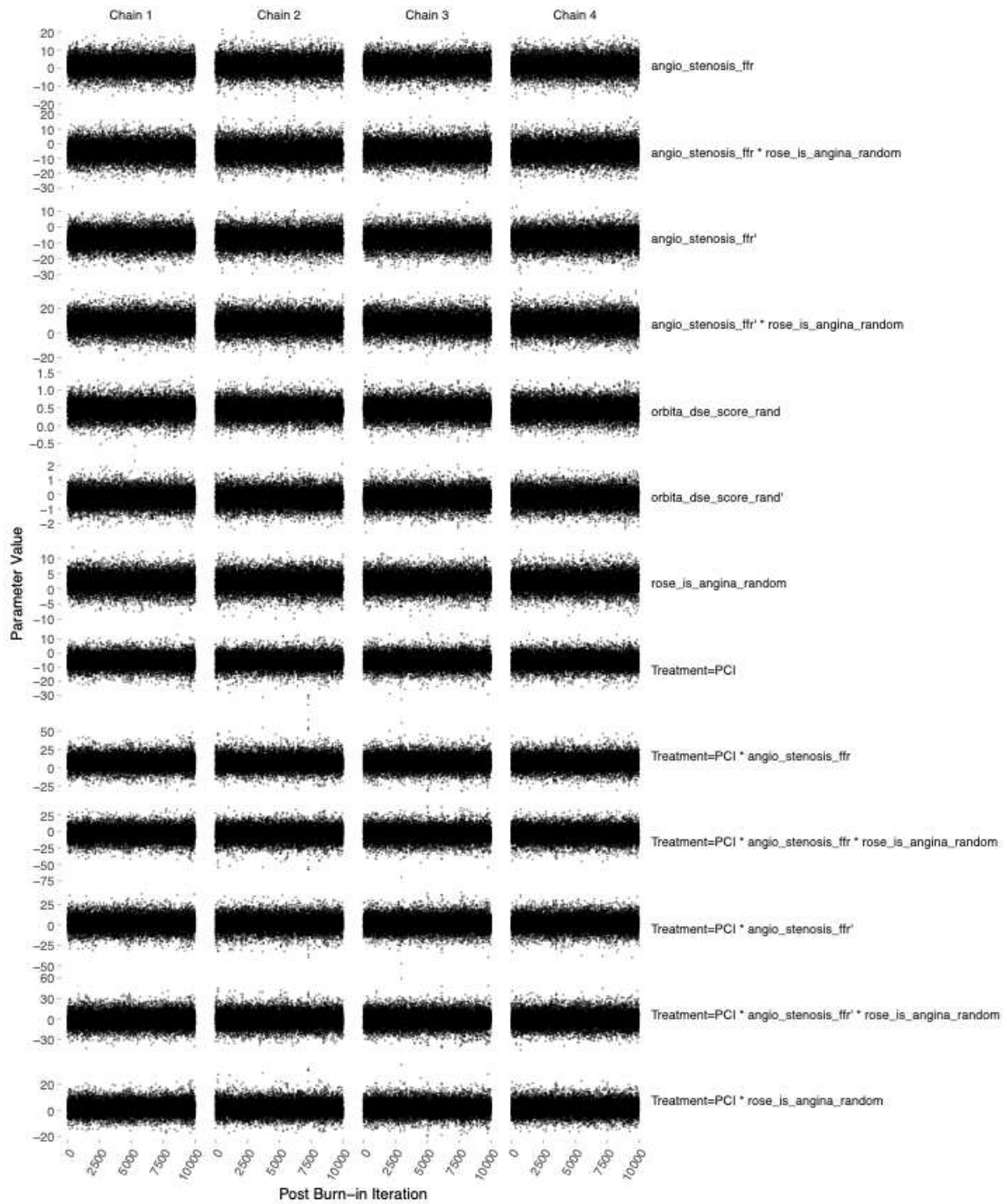




Supplementary figure: chain plot of MCMC draws for DSE score

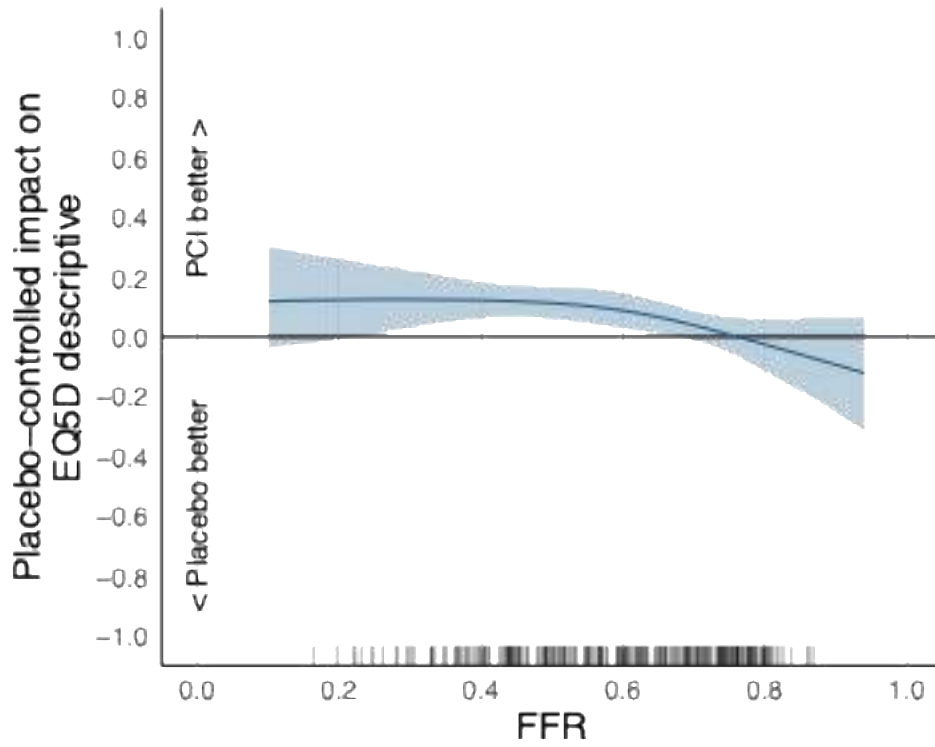


Supplementary figure S59: chain plot of MCMC draws for DSE score for Rose angina and Rose nonangina

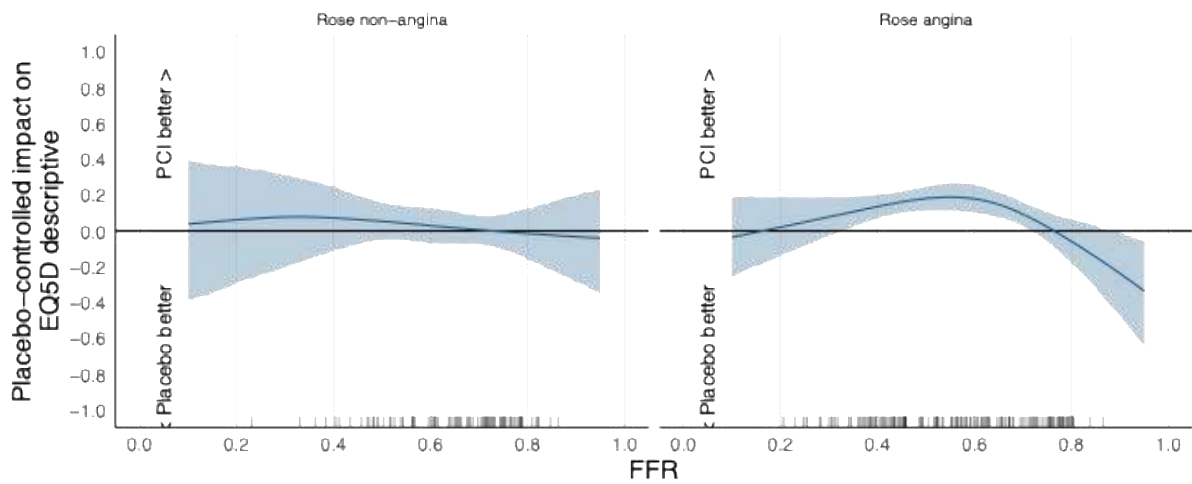


EQ-5D-5L index value

Supplementary figure S60: result: EQ-5D-5L index value



Supplementary figure S61: result: EQ-5D-5L index value for Rose angina and Rose nonangina



Supplementary figure S62: Regression model and coefficients for EQ-5D-5L index value

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.029 for Intercepts

```
blrm(formula = eq5d_value_fu ~ rcs(eq5d_value_random, 3) + Treatment *
      rcs(angio_stenosis_ffr, 3), data = analysis_d, pcontrast = pcon,
      iter = 20000, chains = 4, refresh = 100, progress = file.path(output_dir,
        "interact_res1.progress.txt"), loo = FALSE, ppairs = NULL,
      method = "sampling", file = file.path(output_dir, "interact_res1.blrm.rds"))
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes       | Rank Discrim.<br>Indexes            |
|-------------|--|---------------------------------|-------------------------------------|
| Obs 268     | B 0.004 [0.004, 0.005]                       | g 1.724 [1.412, 2.065]          | C 0.739 [0.731, 0.745]              |
| Draws 40000 |  | g <sub>p</sub> 0.005 [0, 0.016] | D <sub>xy</sub> 0.479 [0.462, 0.49] |
| Chains 4    |  | EV 0.043 [0, 0.125]             |                                     |
| Time 37.4s  |  | v 2.46 [1.662, 3.47]            |                                     |
| p 7         |  | vp 0 [0, 0.001]                 |                                     |

|                                      | Mean β  | Median β | S.E.   | Lower    | Upper  | Pr(β>0) | Symmetry |
|--------------------------------------|---------|----------|--------|----------|--------|---------|----------|
| eq5d_value_random                    | -4.7289 | -4.7195  | 0.8982 | 3.0059   | 6.5436 | 1.0000  | 1.02     |
| eq5d_value_random'                   | 2.8108  | 2.8111   | 1.3404 | 0.1316   | 5.3759 | 0.9840  | 1.03     |
| Treatment=PCI                        | 1.9633  | 1.9469   | 1.5462 | -1.1094  | 4.9715 | 0.9002  | 1.02     |
| angio_stenosis_ffr                   | -2.6694 | -2.6884  | 2.4583 | -7.4623  | 2.1385 | 0.1392  | 1.03     |
| angio_stenosis_ffr'                  | 2.7139  | 2.7280   | 2.7474 | -2.5935  | 8.1235 | 0.8356  | 1.00     |
| Treatment=PCI × cardio_stenosis_ffr  | -1.3276 | -1.3071  | 3.3029 | -7.8806  | 5.0797 | 0.3454  | 0.99     |
| Treatment=PCI × cardio_stenosis_ffr' | -3.1190 | -3.1104  | 3.7342 | -10.2763 | 4.3911 | 0.2010  | 1.01     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S63: Regression model and coefficients for EQ-5D-5L index value for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.031 for Intercepts

```
blrm(formula = eq5d_value_fu ~ rcs(eq5d_value_random, 3) + Treatment *
      rcs(angio_stenosis_ffr, 3) * rose_is_angina_random, data = rose_analysis_d,
      pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
      progress = file.path(output_dir, "interact_res2.progress.txt"),
      loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
        "interact_res2.blrm.rds"))
```

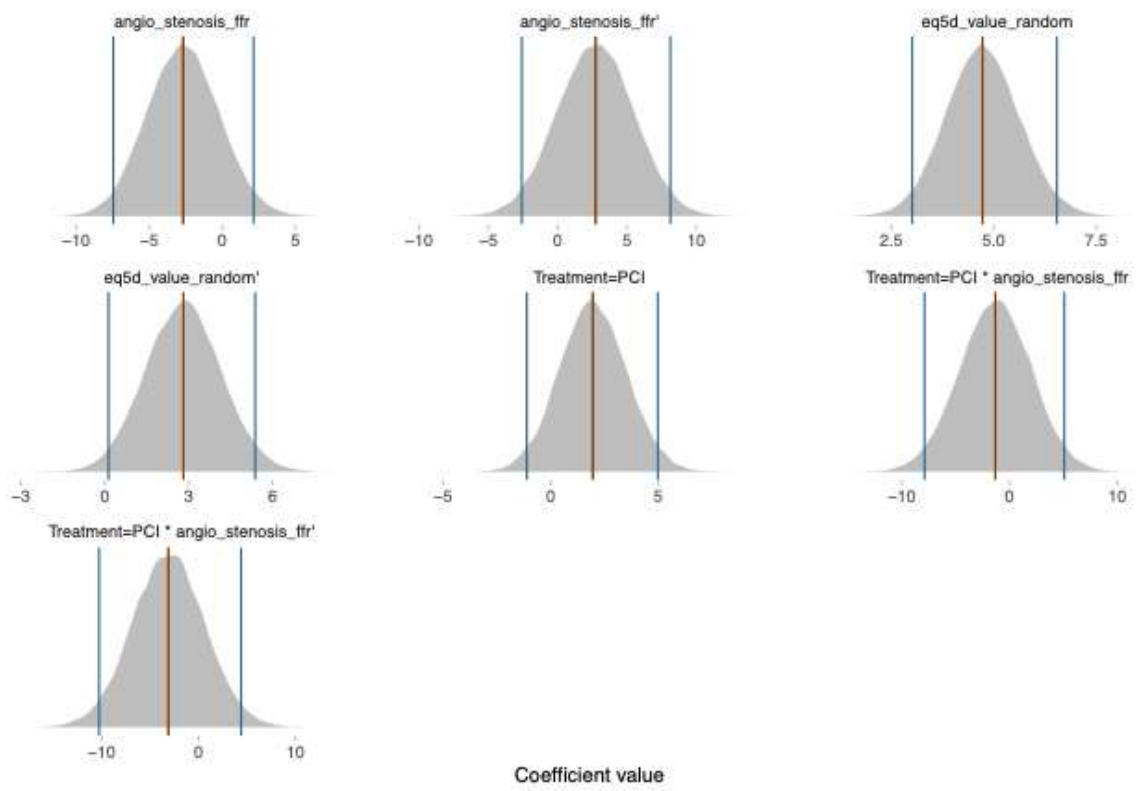
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 239     | B 0.168 [0.16, 0.177]                        | g 1.994 [1.667, 2.379]              | C 0.751 [0.743, 0.759]               |
| Draws 40000 |  | g <sub>p</sub> 0.336 [0.302, 0.367] | D <sub>xy</sub> 0.502 [0.485, 0.517] |
| Chains 4    |  | EV 0.342 [0.274, 0.408]             |                                      |
| Time 30.8s  |  | v 3.219 [2.041, 4.31]               |                                      |
| p 13        |  | vp 0.085 [0.069, 0.102]             |                                      |

|  | Mean β   | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|--|----------|----------|--------|----------|---------|---------|----------|
| eq5d_value_random  | -4.5761  | -4.5706  | 0.9715 | 2.6599   | 6.4656  | 1.0000  | 1.03     |
| eq5d_value_random'   | 3.6524   | 3.6342   | 1.4549 | 0.8098   | 6.4477  | 0.9951  | 1.01     |
| Treatment=PCI  | 2.0827   | 2.0409   | 4.4812 | -6.5168  | 10.9174 | 0.6778  | 1.02     |
| angio_stenosis_ffr   | -6.7099  | -6.8058  | 4.6632 | -15.6928 | 2.7166  | 0.0756  | 1.04     |
| angio_stenosis_ffr'  | 6.7331   | 6.7698   | 4.7547 | -2.4633  | 16.2833 | 0.9213  | 0.98     |
| rose_is_angina_random  | -1.1538  | -1.1874  | 2.7063 | -6.4371  | 4.0884  | 0.3301  | 1.03     |
| Treatment=PCI × cardio_stenosis_ffr                          | -3.0424  | -2.9890  | 8.6815 | -20.0521 | 13.9081 | 0.3646  | 0.98     |
| Treatment=PCI × cardio_stenosis_ffr'                         | 0.5420   | 0.4565   | 8.0403 | -15.0501 | 16.4462 | 0.5226  | 1.00     |
| Treatment=PCI × rose_is_angina_random                        | -3.2552  | -3.2136  | 4.8602 | -12.5995 | 6.3794  | 0.2528  | 0.98     |
| angio_stenosis_ffr × rose_is_angina_random                   | 2.9369   | 3.0048   | 5.6126 | -8.1509  | 13.7563 | 0.7013  | 0.97     |
| angio_stenosis_ffr' × rose_is_angina_random                  | -2.2177  | -2.2316  | 6.1111 | -14.0193 | 9.7264  | 0.3598  | 1.00     |
| Treatment=PCI × cardio_stenosis_ffr × rose_is_angina_random  | 10.2799  | 10.2328  | 9.6714 | -8.9466  | 28.8084 | 0.8580  | 1.02     |
| Treatment=PCI × cardio_stenosis_ffr' × rose_is_angina_random | -14.9385 | -14.9384 | 9.6789 | -33.7893 | 4.0302  | 0.0591  | 1.00     |

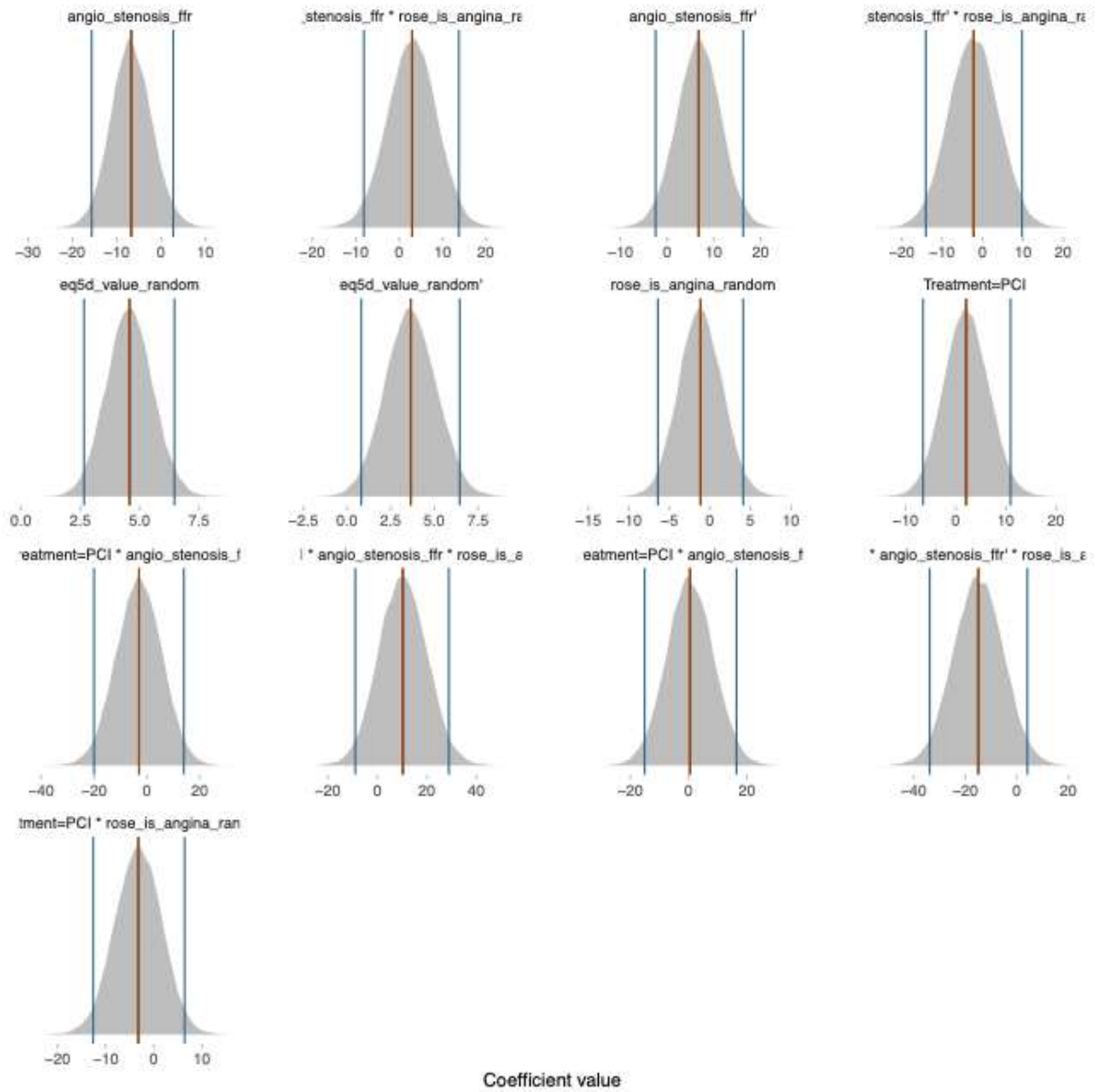
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

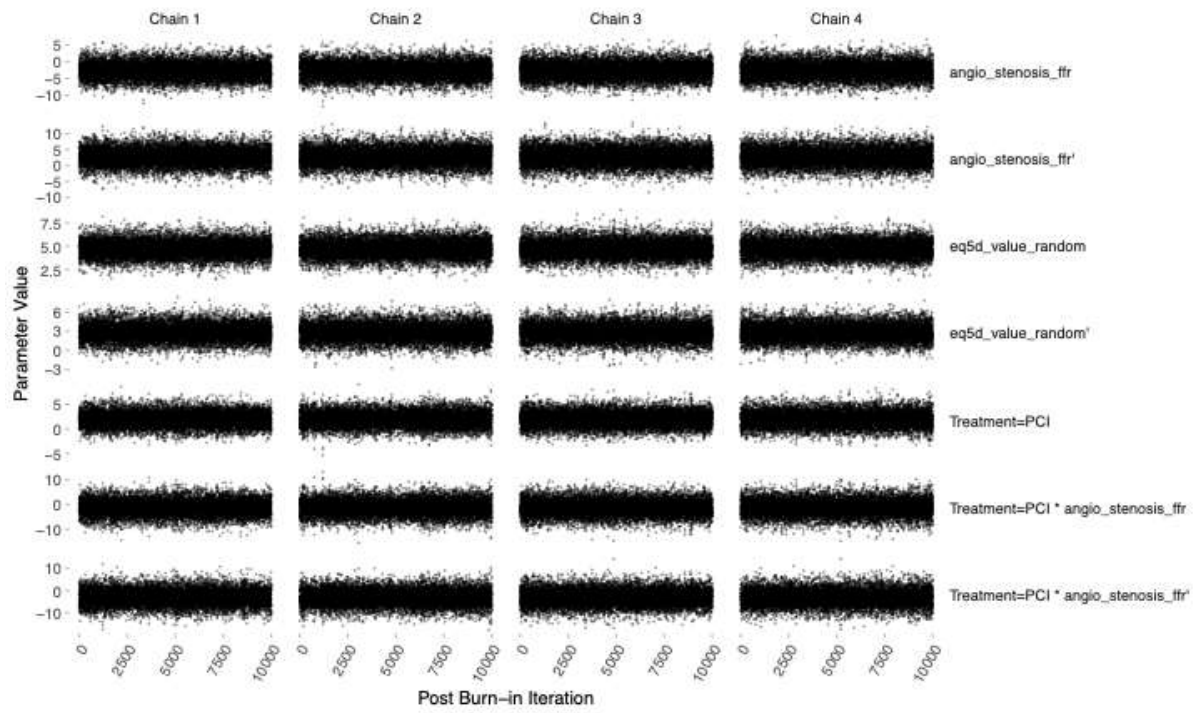
Supplementary figure S64: coefficient density plots: EQ-5D-5L index value



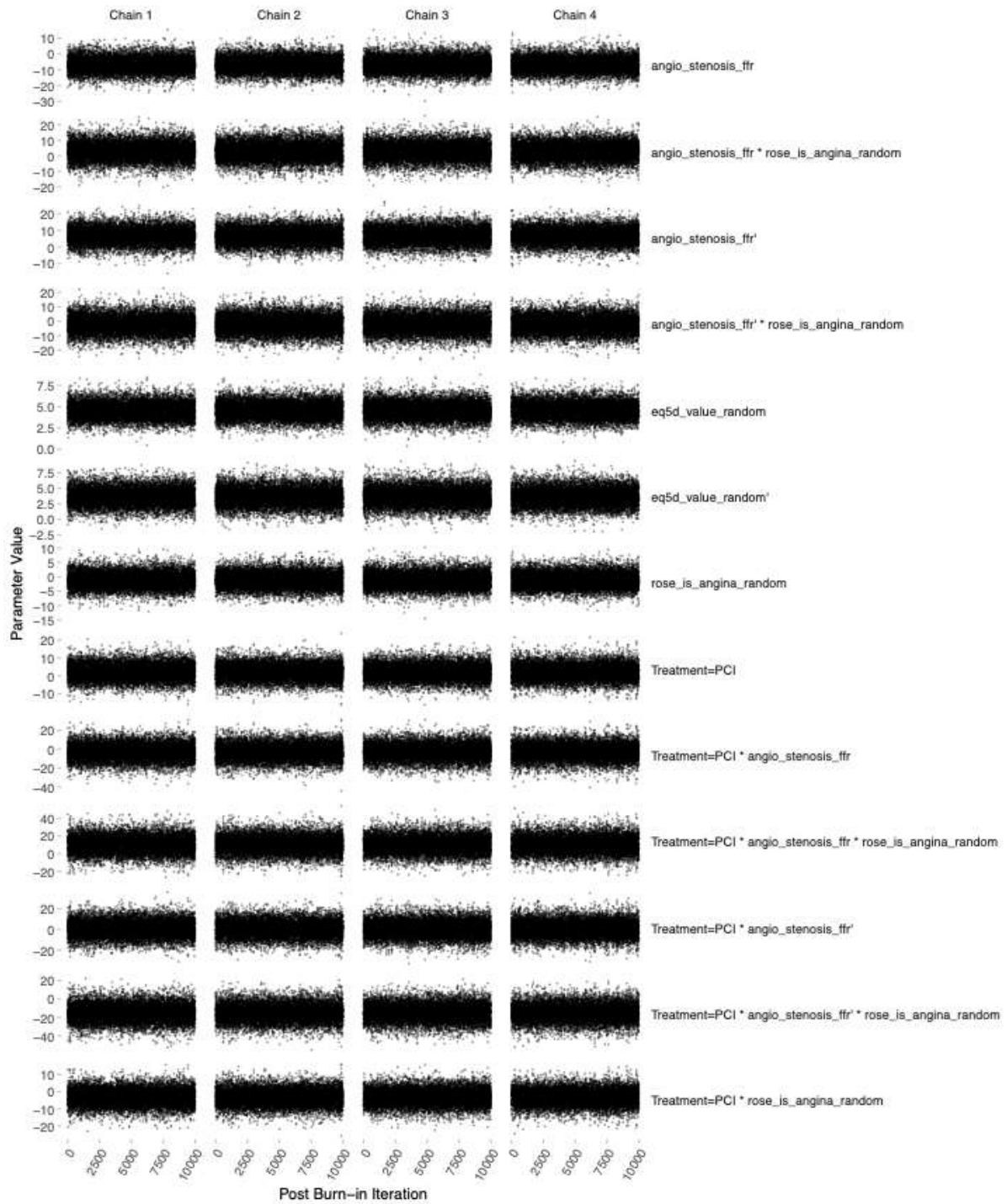
Supplementary figure S65: coefficient density plots: EQ-5D-5L index value for Rose angina and Rose nonangina



Supplementary figure S66: chain plot of MCMC draws for EQ-5D-5L index value



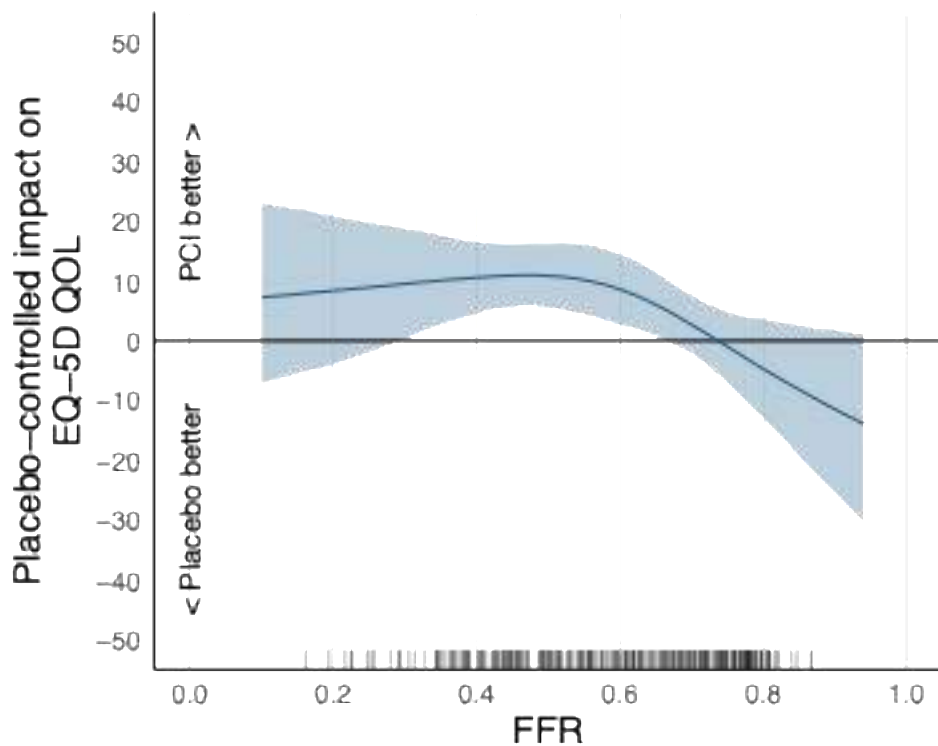
Supplementary figure S67: chain plot of MCMC draws for EQ-5D-5L index value for Rose angina and Rose nonangina



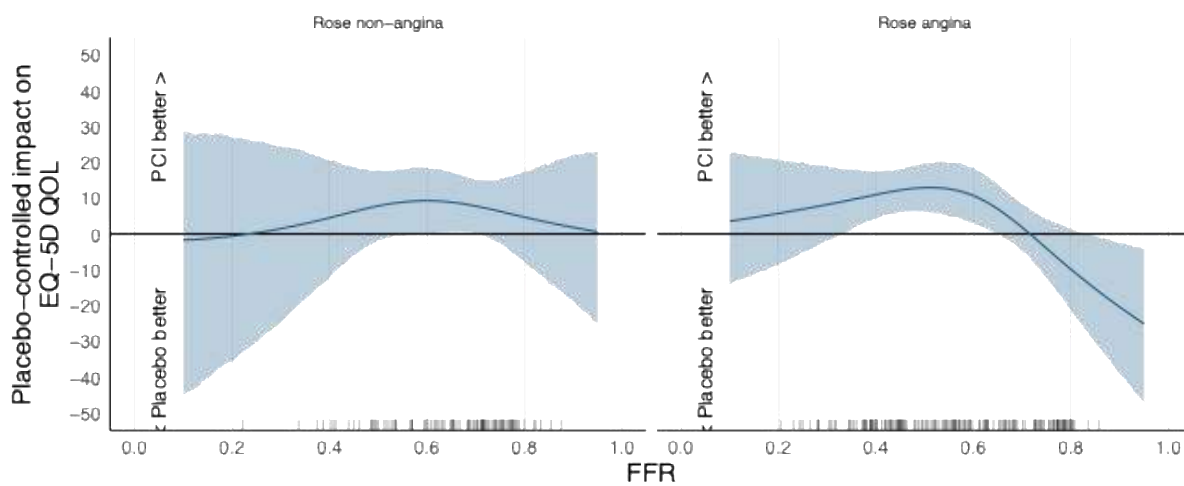


# EQ-5D-5L visual analogue scale

Supplementary figure S68: result: EQ-5D-5L visual analogue scale



Supplementary figure S69: result: EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina



Supplementary figure S70: Regression model and coefficients for EQ-5D-5L visual analogue scale

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.086 for Intercepts

```
blrm(formula = eq5d_qol_post ~ rcs(eq5d_qol_pre, 3) + Treatment *
      rcs(angio_stenosis_ffr, 3), data = analysis_d, pcontrast = pcon,
      iter = 20000, chains = 4, refresh = 100, progress = file.path(output_dir,
      "interact_res1.progress.txt"), loo = FALSE, ppairs = NULL,
      method = "sampling", file = file.path(output_dir, "interact_res1.blrm.rds"))
```

Frequencies of Responses

|    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 6  | 15 | 20 | 25 | 30 | 35 | 38  | 40 | 45 | 50 | 55 | 56 | 60 | 63 | 64 | 65 | 70 | 73 | 74 | 75 | 78 | 80 | 82 | 85 |
| 1  | 1  | 2  | 5  | 5  | 4  | 1   | 11 | 6  | 22 | 5  | 1  | 22 | 1  | 1  | 13 | 26 | 1  | 1  | 23 | 1  | 29 | 2  | 28 |
| 86 | 88 | 90 | 95 | 98 | 99 | 100 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1  | 2  | 32 | 14 | 2  | 3  | 2   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes            |
|-------------|--|-------------------------------------|-------------------------------------|
| Obs 268     | B 0.195 [0.191, 0.199]                       | g 1.461 [1.144, 1.74]               | C 0.709 [0.703, 0.715]              |
| Draws 40000 |  | g <sub>p</sub> 0.286 [0.248, 0.323] | D <sub>xy</sub> 0.418 [0.406, 0.43] |
| Chains 4    |  | EV 0.247 [0.186, 0.311]             |                                     |
| Time 24.4s  |  | v 1.685 [1.036, 2.405]              |                                     |
| p 7         |  | vp 0.062 [0.045, 0.077]             |                                     |

|                                     | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|-------------------------------------|---------|----------|--------|----------|---------|---------|----------|
| eq5d_qol_pre                        | 0.0552  | 0.0551   | 0.0122 | 0.0310   | 0.0787  | 1.0000  | 1.02     |
| eq5d_qol_pre'                       | 0.0173  | 0.0172   | 0.0171 | -0.0156  | 0.0512  | 0.8446  | 1.00     |
| Treatment=PCI                       | 1.1873  | 1.1949   | 1.4829 | -1.6594  | 4.1593  | 0.7878  | 1.00     |
| angio_stenosis_ffr                  | -5.0919 | -5.0826  | 2.4417 | -9.7174  | -0.1809 | 0.0174  | 0.99     |
| angio_stenosis_ffr'                 | 7.0228  | 7.0305   | 2.7579 | 1.5058   | 12.3358 | 0.9948  | 1.01     |
| Treatment=PCI × angio_stenosis_ffr  | 0.0881  | 0.0845   | 3.1747 | -5.9117  | 6.5428  | 0.5099  | 1.01     |
| Treatment=PCI × angio_stenosis_ffr' | -4.7496 | -4.7585  | 3.6414 | -11.7956 | 2.4468  | 0.0967  | 0.99     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S71: Regression model and coefficients for EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.086 for Intercepts

```
blrm(formula = eq5d_qol_post ~ rcs(eq5d_qol_pre, 3) + Treatment *
      rcs(angio_stenosis_ffr, 3) + rose_is_angina_random, data = rose_analysis_d,
      pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
      progress = file.path(output_dir, "interact_res2.progress.txt"),
      loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
      "interact_res2.blrm.rds"))
```

Frequencies of Responses

|    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 6  | 15 | 20 | 25 | 30 | 35 | 38  | 40 | 45 | 50 | 55 | 56 | 60 | 63 | 64 | 65 | 70 | 73 | 74 | 75 | 78 | 80 | 82 | 85 |
| 1  | 1  | 2  | 3  | 4  | 3  | 1   | 9  | 6  | 19 | 4  | 1  | 21 | 1  | 1  | 11 | 24 | 1  | 1  | 22 | 1  | 27 | 2  | 26 |
| 86 | 88 | 90 | 95 | 98 | 99 | 100 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1  | 1  | 27 | 11 | 2  | 3  | 2   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

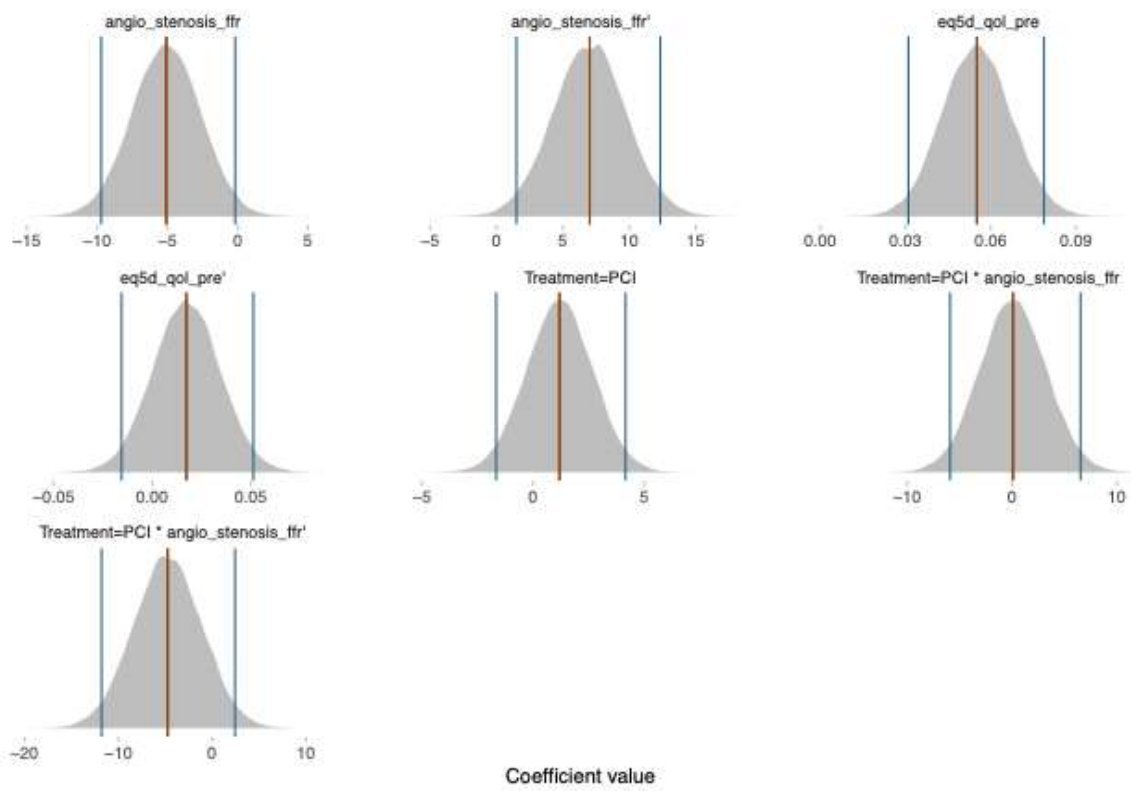
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes         | Rank Discrim.<br>Indexes             |
|-------------|--|-----------------------------------|--------------------------------------|
| Obs 239     | B 0.198 [0.193, 0.205]                       | g 1.568 [1.269, 1.85]             | C 0.708 [0.699, 0.716]               |
| Draws 40000 |  | g <sub>p</sub> 0.3 [0.263, 0.334] | D <sub>xy</sub> 0.416 [0.397, 0.432] |
| Chains 4    |  | EV 0.271 [0.207, 0.333]           |                                      |
| Time 32.3s  |  | v 1.928 [1.249, 2.662]            |                                      |
| p 13        |  | vp 0.068 [0.052, 0.083]           |                                      |

|   | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|---------|----------|--------|----------|---------|---------|----------|
| eq5d_qol_pre  | 0.0578  | 0.0578   | 0.0142 | 0.0296   | 0.0854  | 1.0000  | 0.99     |
| eq5d_qol_pre'   | 0.0162  | 0.0162   | 0.0187 | -0.0208  | 0.0526  | 0.8086  | 1.00     |
| Treatment=PCI   | -0.7581 | -0.7864  | 4.0661 | -8.6238  | 7.3089  | 0.4223  | 1.02     |
| angio_stenosis_ffr  | -9.8654 | -9.9046  | 4.7802 | -19.5280 | -0.7327 | 0.0216  | 1.02     |
| angio_stenosis_ffr'   | 10.0354 | 10.0567  | 4.9200 | 0.4072   | 19.6448 | 0.9784  | 0.98     |
| rose_is_angina_random                                       | -2.0162 | -2.0242  | 2.7600 | -7.4516  | 3.2998  | 0.2309  | 1.02     |
| Treatment=PCI × angio_stenosis_ffr                          | 3.3031  | 3.3413   | 7.9193 | -12.4499 | 18.5139 | 0.6629  | 0.99     |
| Treatment=PCI × angio_stenosis_ffr'                         | -3.6970 | -3.6345  | 7.4533 | -18.2269 | 10.9157 | 0.3083  | 0.98     |
| Treatment=PCI × rose_is_angina_random                       | 1.0890  | 1.0985   | 4.4617 | -7.6104  | 9.7814  | 0.5987  | 0.99     |
| angio_stenosis_ffr × rose_is_angina_random                  | 4.3603  | 4.3810   | 5.6925 | -6.5404  | 15.5523 | 0.7807  | 0.97     |
| angio_stenosis_ffr' × rose_is_angina_random                 | -1.0107 | -1.0322  | 6.1313 | -12.9989 | 10.9924 | 0.4339  | 1.01     |
| Treatment=PCI × angio_stenosis_ffr × rose_is_angina_random  | -0.7388 | -0.7712  | 8.8794 | -17.8254 | 16.8422 | 0.4662  | 1.00     |
| Treatment=PCI × angio_stenosis_ffr' × rose_is_angina_random | -6.0548 | -6.0645  | 8.9667 | -23.5954 | 11.6069 | 0.2520  | 1.00     |

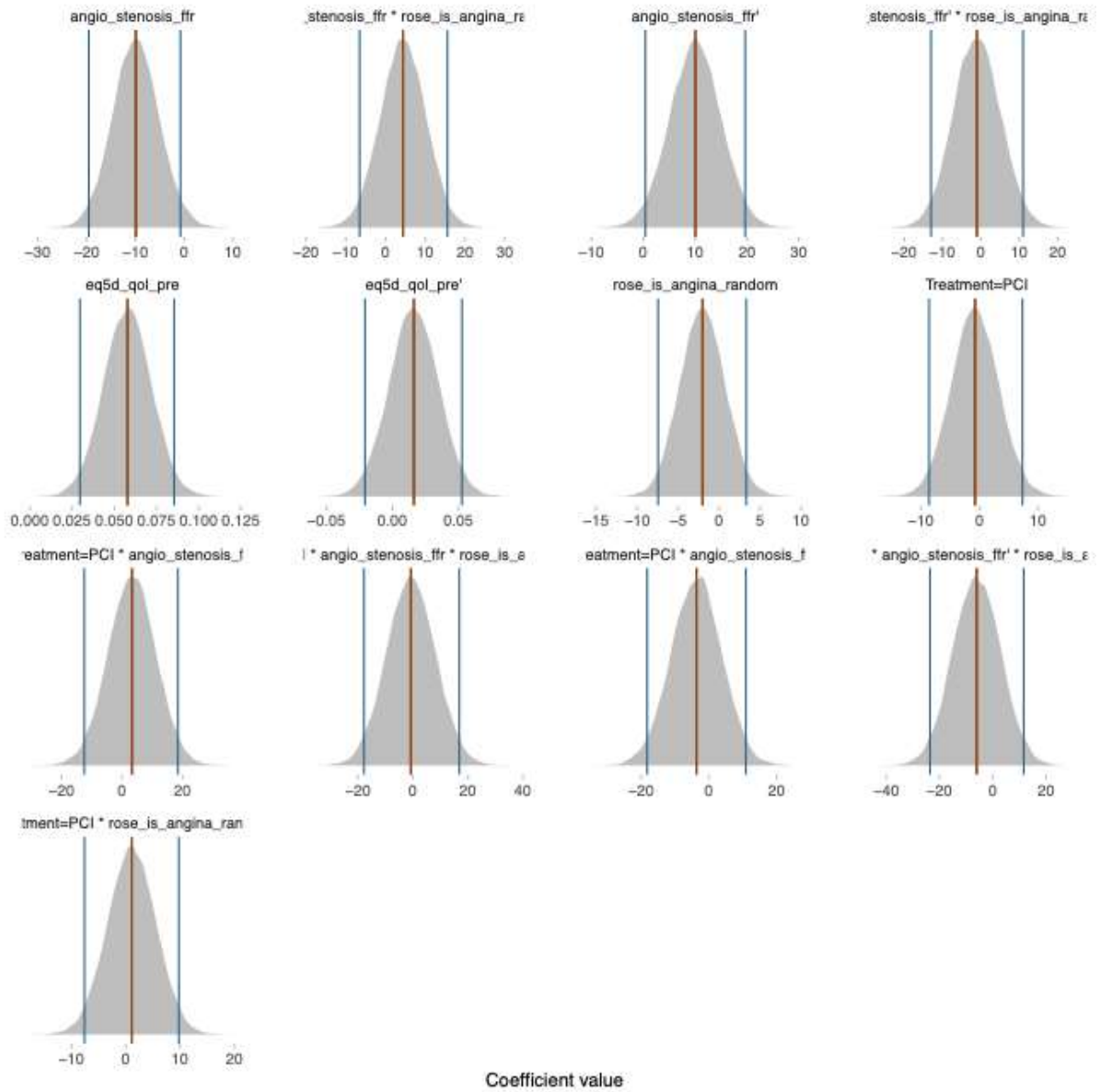
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

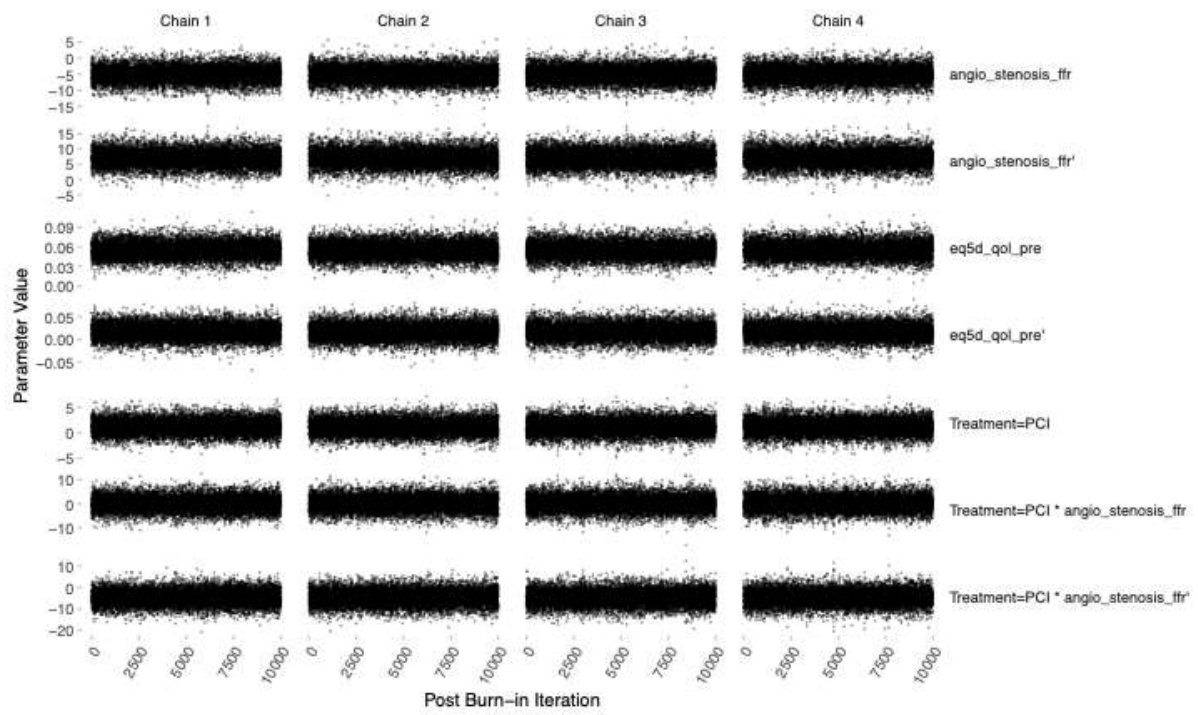
Supplementary figure S72: coefficient density plots: EQ-5D-5L visual analogue scale



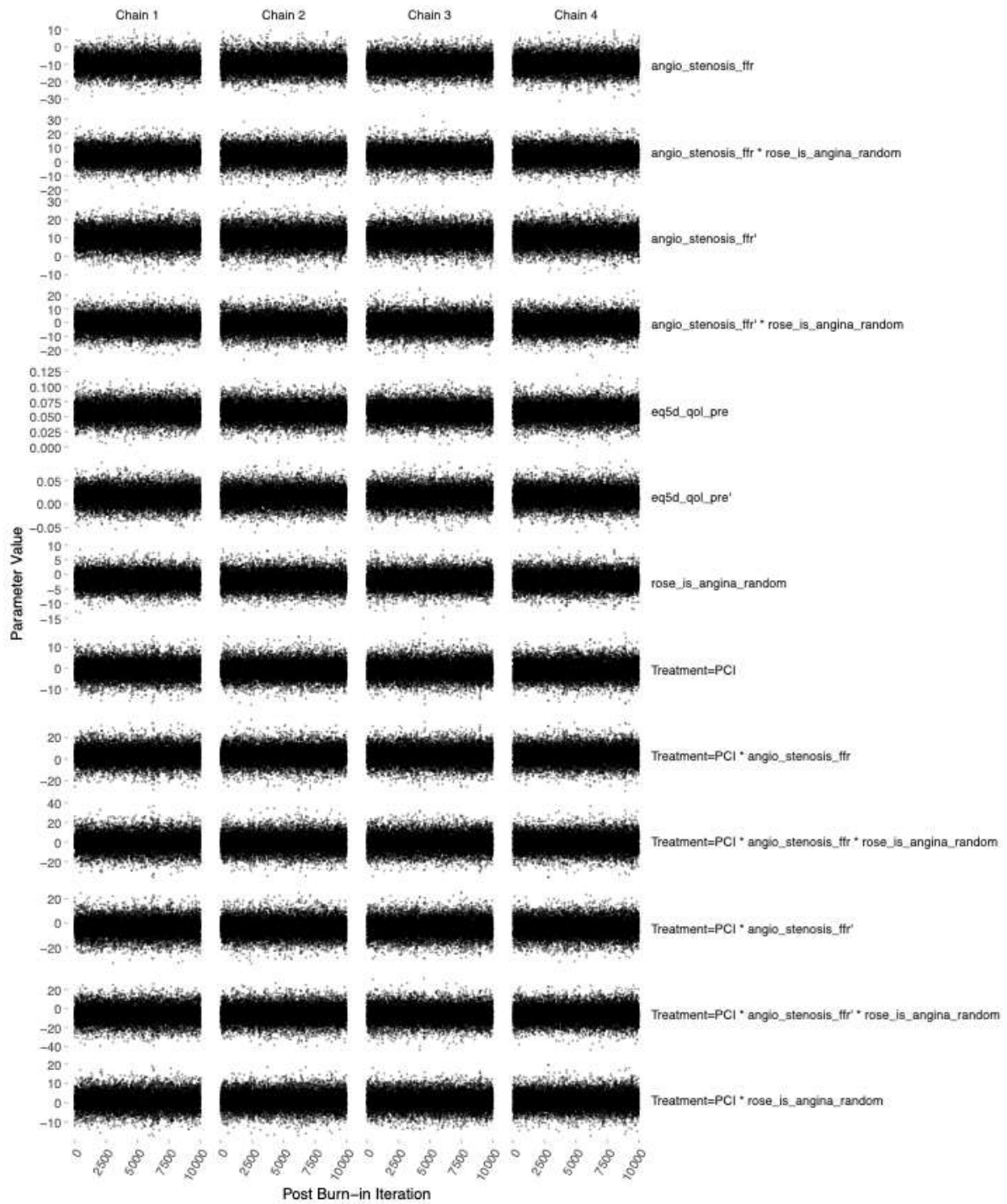
Supplementary figure S73: coefficient density plots: EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina



Supplementary figure S74: chain plot of MCMC draws for EQ-5D-5L visual analogue scale

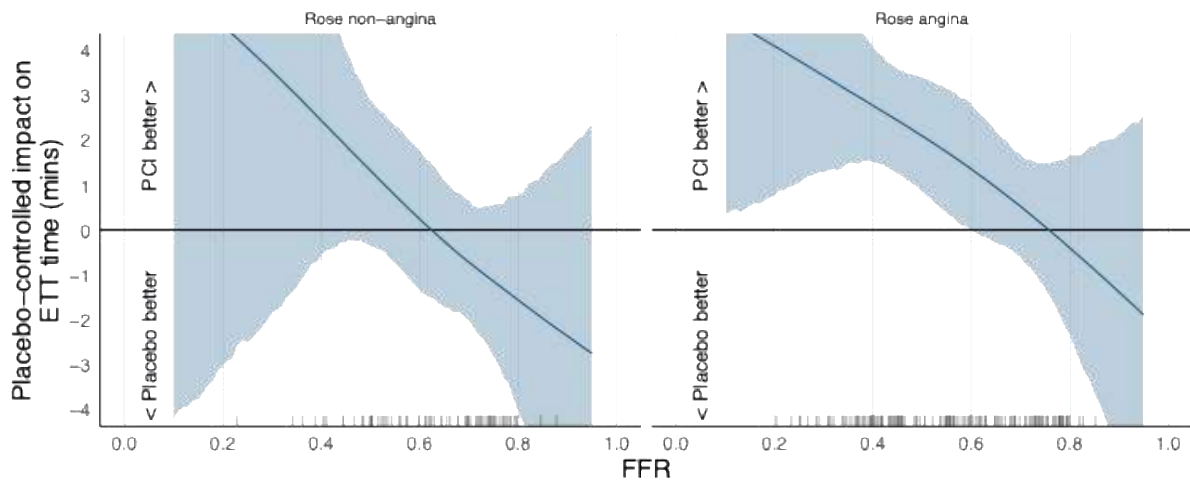


Supplementary figure S75: chain plot of MCMC draws for EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina



## Treadmill exercise time

Supplementary figure S76: result: treadmill exercise time for Rose angina and Rose nonangina



Supplementary figure S77: Regression model and coefficients for treadmill exercise time

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.015 for Intercepts

```
blrm(formula = fu_ett_seconds ~ rcs(baseline_ett_seconds, 3) +
      Treatment * rcs(angio_stenosis_ffr, 3), data = analysis_d,
      pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
      progress = file.path(output_dir, "interact_res1.progress.txt"),
      loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
      "interact_res1.blrm.rds"))
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes | Rank Discrim.<br>Indexes     |
|-------------|--|---------------------------|------------------------------|
| Obs 217     | B 0.138 [0.133, 0.144]                       | $g$ 2.661 [2.265, 3.049]  | C 0.784 [0.78, 0.788]        |
| Draws 40000 |  | $g_p$ 0.387 [0.366, 0.41] | $D_{xy}$ 0.569 [0.56, 0.576] |
| Chains 4    |  | EV 0.457 [0.401, 0.512]   |                              |
| Time 72.5s  |  | $v$ 5.572 [3.981, 7.307]  |                              |
| p 7         |  | $vp$ 0.114 [0.1, 0.128]   |                              |

|  | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|--|--------------|----------------|--------|----------|---------|-------------------|----------|
| baseline_ett_seconds                       | 0.0092       | 0.0092         | 0.0014 | 0.0065   | 0.0120  | 1.0000            | 1.04     |
| baseline_ett_seconds'                      | -0.0002      | -0.0002        | 0.0014 | -0.0029  | 0.0024  | 0.4291            | 1.00     |
| Treatment=PCI                              | 5.0405       | 5.0466         | 1.6187 | 1.9337   | 8.2471  | 0.9989            | 1.02     |
| angio_stenosis_ffr                         | 1.4137       | 1.3932         | 2.6281 | -3.7409  | 6.5557  | 0.7059            | 1.00     |
| angio_stenosis_ffr'                        | 0.5349       | 0.5486         | 2.9949 | -5.5286  | 6.1829  | 0.5735            | 1.00     |
| Treatment=PCI $\times$ angio_stenosis_ffr  | -8.1006      | -8.1190        | 3.4568 | -14.9168 | -1.4573 | 0.0094            | 0.99     |
| Treatment=PCI $\times$ angio_stenosis_ffr' | 2.0359       | 2.0413         | 4.0226 | -5.6882  | 10.0176 | 0.6915            | 1.01     |

### Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S78: Regression model and coefficients for treadmill exercise time for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.016 for Intercepts

```
blrm(formula = fu_ett_seconds ~ rcs(baseline_ett_seconds, 3) +
  Treatment * rcs(angio_stenosis_ffr, 3) * rose_is_angina_random,
  data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
  refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
  loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
  "interact_res2.blrm.rds"))
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes     | Rank Discrim.<br>Indexes      |
|-------------|--|-------------------------------|-------------------------------|
| Obs 193     | B 0.141 [0.134, 0.15]                        | g 2.653 [2.236, 3.085]        | C 0.777 [0.768, 0.784]        |
| Draws 40000 |  | $\beta_p$ 0.388 [0.36, 0.411] | $D_{xy}$ 0.555 [0.537, 0.568] |
| Chains 4    |  | EV 0.46 [0.385, 0.515]        |                               |
| Time 62.6s  |  | v 5.535 [3.721, 7.321]        |                               |
| p 13        |  | vp 0.115 [0.097, 0.129]       |                               |

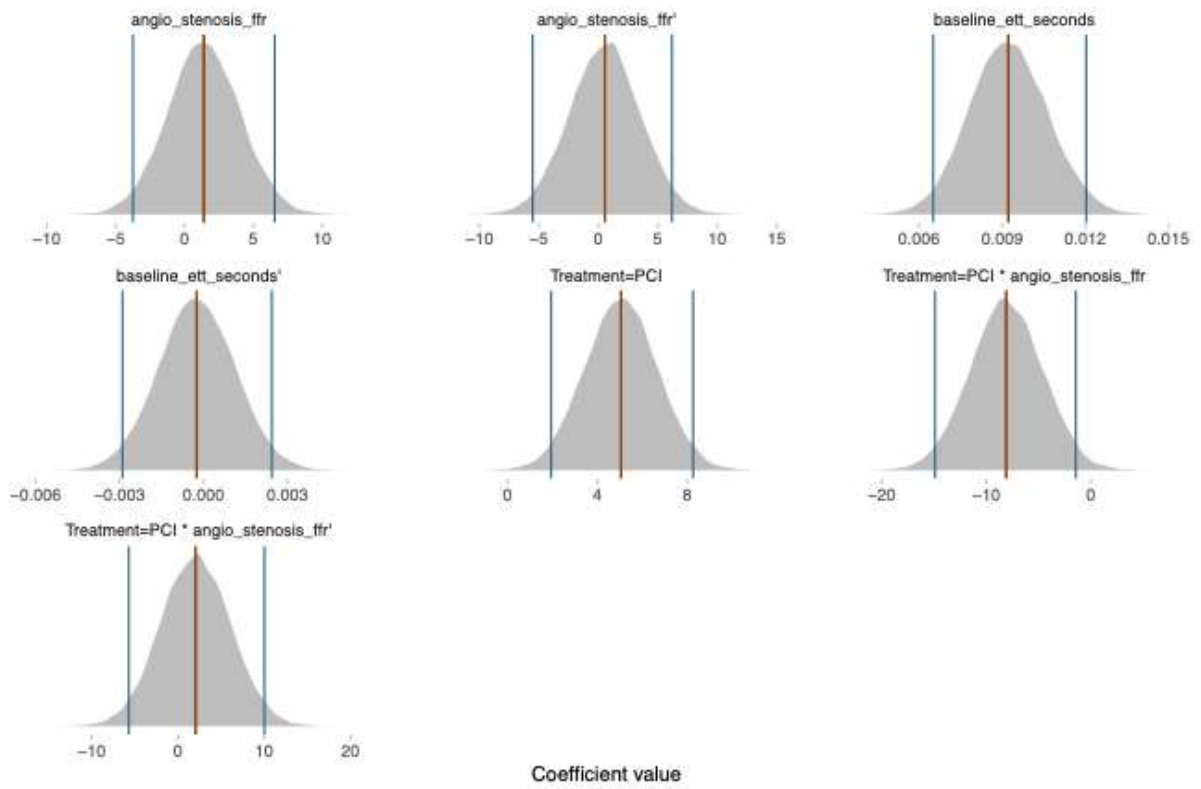
|   | Mean $\beta$ | Median $\beta$ | S.E.    | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|---------|----------|---------|-------------------|----------|
| baseline_ett_seconds  | 0.0098       | 0.0097         | 0.0015  | 0.0068   | 0.0127  | 1.0000            | 1.04     |
| baseline_ett_seconds'                                       | -0.0011      | -0.0011        | 0.0014  | -0.0039  | 0.0017  | 0.2288            | 0.99     |
| Treatment=PCI   | 4.9436       | 4.9644         | 4.6375  | -4.0451  | 14.0631 | 0.8563            | 0.99     |
| angio_stenosis_ffr  | 1.4426       | 1.3948         | 4.6135  | -7.5474  | 10.7886 | 0.6237            | 1.05     |
| angio_stenosis_ffr'   | 3.3350       | 3.3338         | 5.0166  | -6.3402  | 13.3960 | 0.7515            | 1.00     |
| rose_is_angina_random                                       | 0.3164       | 0.2909         | 2.7500  | -5.1648  | 5.6406  | 0.5440            | 1.02     |
| Treatment=PCI x angio_stenosis_ffr                          | -8.0976      | -8.1619        | 9.1669  | -25.9394 | 9.8156  | 0.1882            | 1.01     |
| Treatment=PCI x angio_stenosis_ffr'                         | 1.0918       | 1.1252         | 8.8474  | -16.1079 | 18.3777 | 0.5511            | 1.00     |
| Treatment=PCI x rose_is_angina_random                       | -0.9405      | -0.9884        | 5.0727  | -10.5070 | 9.4306  | 0.4253            | 1.01     |
| angio_stenosis_ffr x rose_is_angina_random                  | -0.2218      | -0.1667        | 5.8233  | -11.5491 | 11.3707 | 0.4889            | 0.98     |
| angio_stenosis_ffr' x rose_is_angina_random                 | -3.8311      | -3.8477        | 6.5814  | -17.0115 | 8.8585  | 0.2794            | 0.99     |
| Treatment=PCI x angio_stenosis_ffr x rose_is_angina_random  | 3.1289       | 3.2030         | 10.2644 | -17.1764 | 23.1405 | 0.6201            | 1.00     |
| Treatment=PCI x angio_stenosis_ffr' x rose_is_angina_random | -1.9063      | -1.9659        | 10.5266 | -22.3861 | 18.6377 | 0.4273            | 0.99     |

Contrasts Given Priors

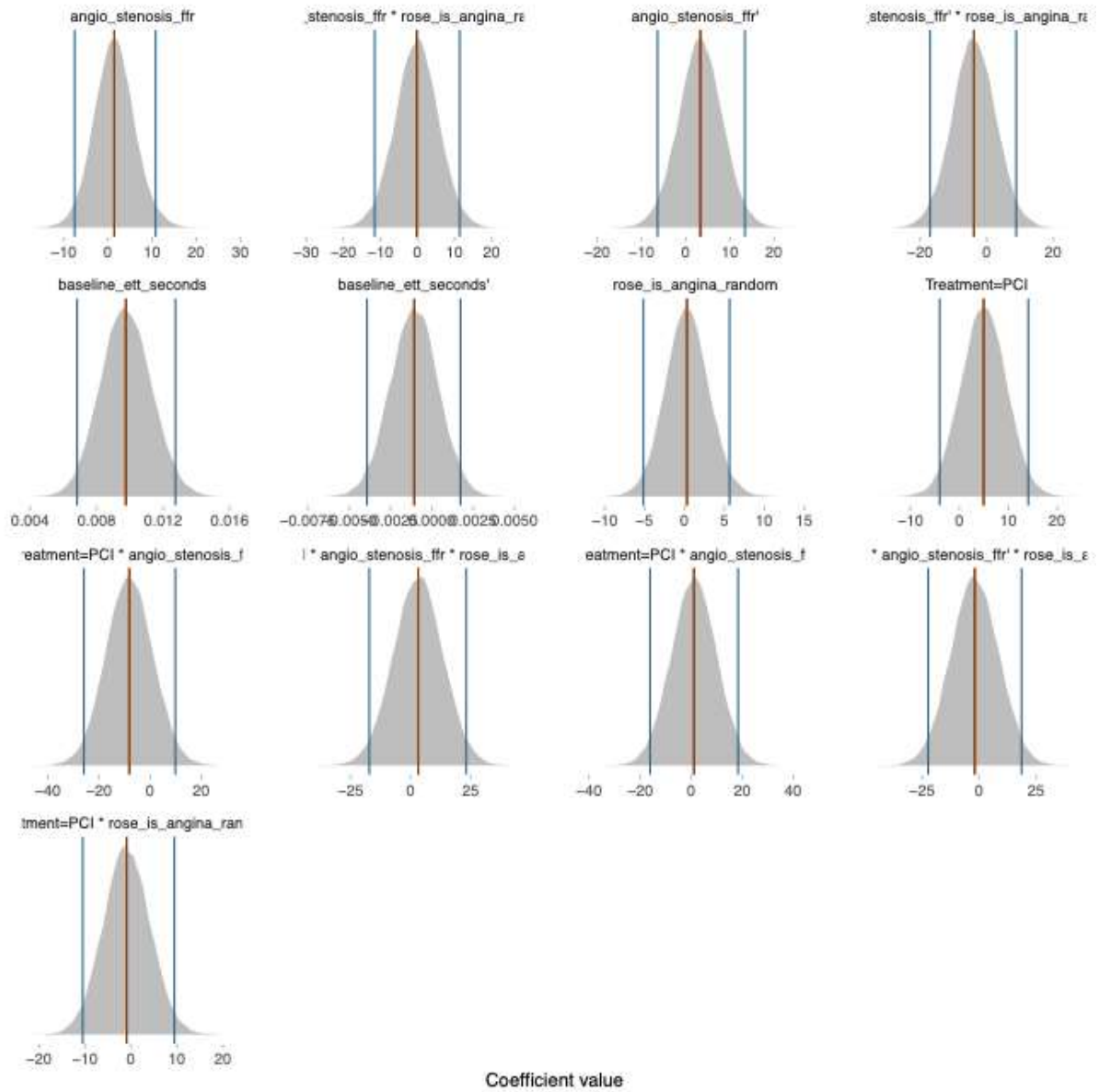
```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842887127883599)
```



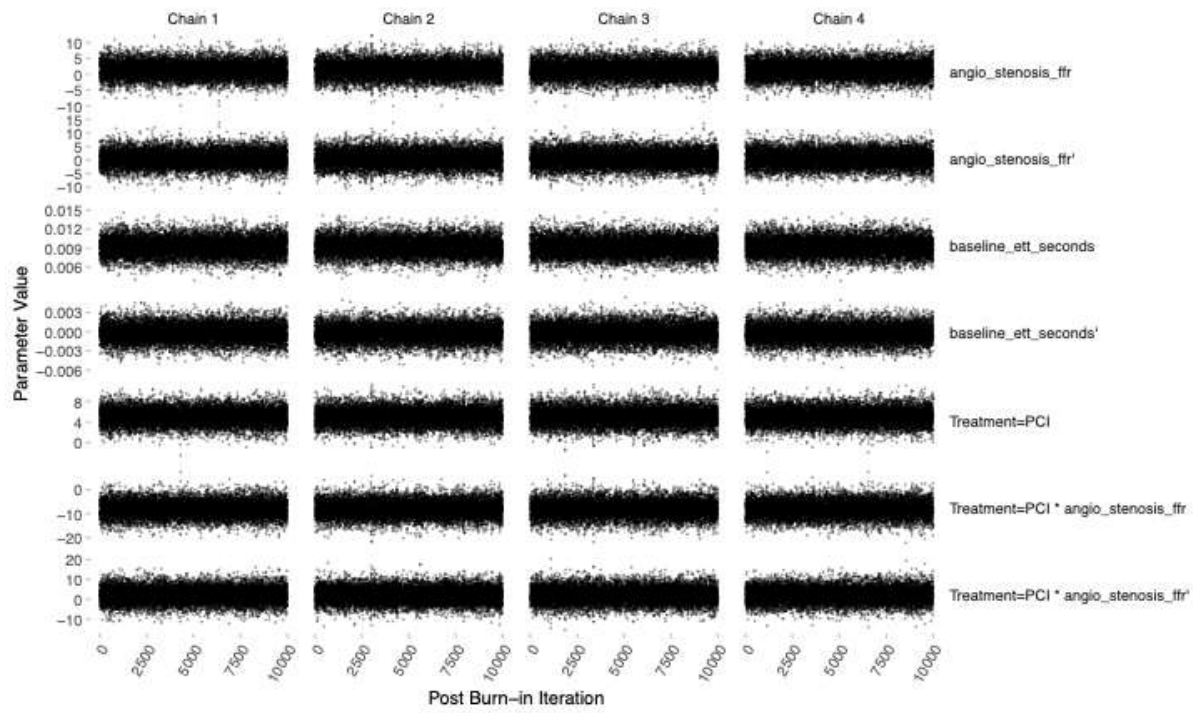
Supplementary figure S79: coefficient density plots: treadmill exercise time



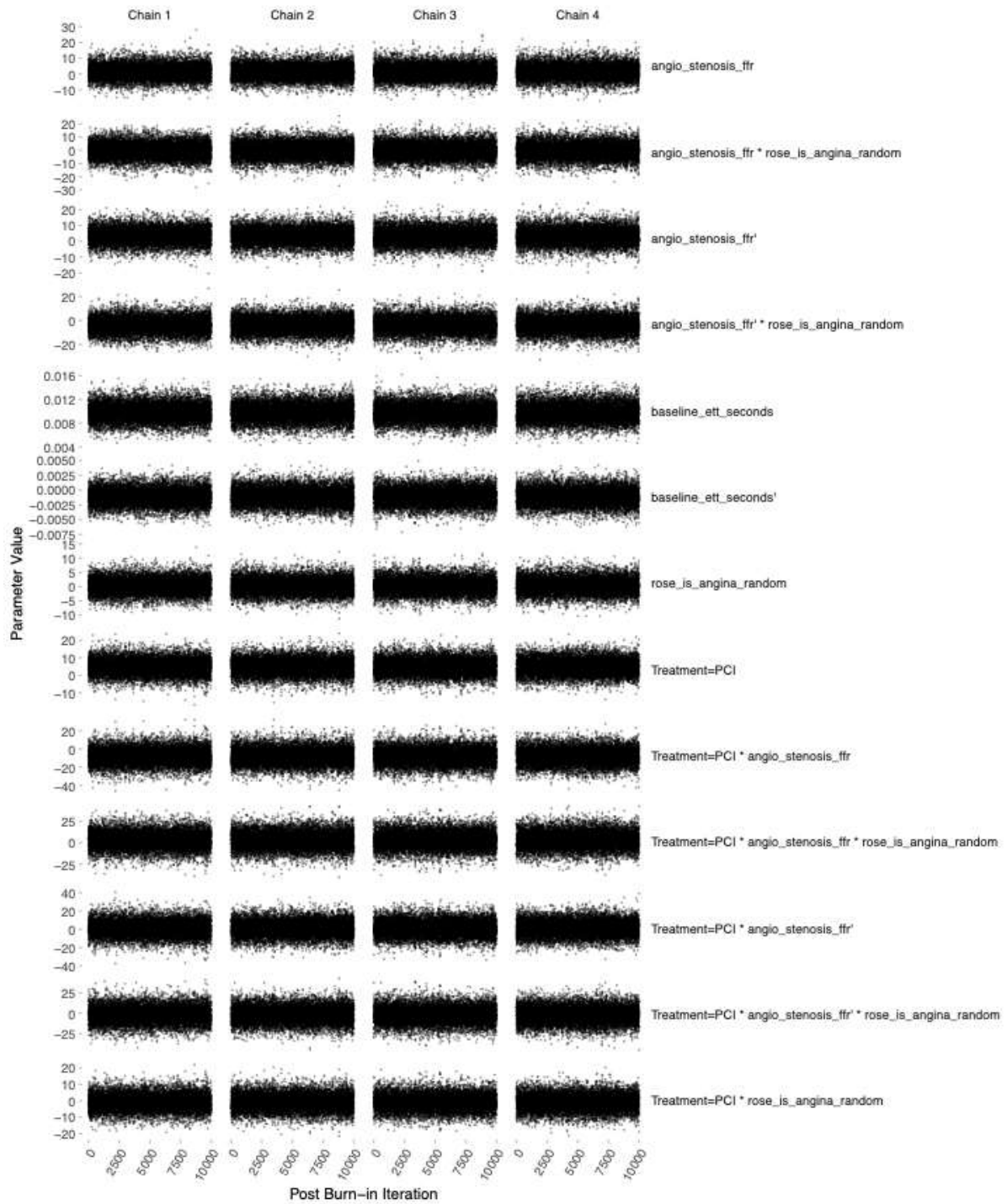
Supplementary figure S80: coefficient density plots: treadmill exercise time for Rose angina and Rose nonangina



Supplementary figure S81: chain plot of MCMC draws for treadmill exercise time



Supplementary figure S82: chain plot of MCMC draws for treadmill exercise time for Rose angina and Rose nonangina



## Supplementary Results - iFR

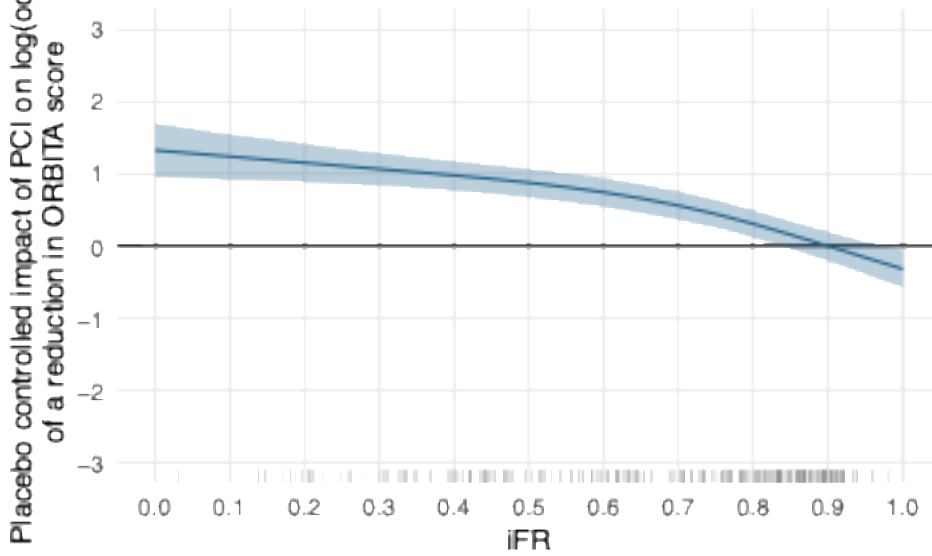
Supplementary table S7: iFR-stratified effect of PCI over placebo according to symptom characteristics

|  | iFR at the 25 <sup>th</sup> centile | iFR at the 75 <sup>th</sup> centile | Probability of greater benefit in a patient with a lower iFR (Pr) |
|--|-------------------------------------|-------------------------------------|---|
| iFR  | 0.50                                | 0.86                                |   |
| <b>Primary endpoint: angina symptom score at 12 weeks*</b> |                                     |                                     |   |
| <b>Rose angina</b>   |                                     |                                     |   |
| Odds of improvement  | 2.91<br>(2.31 to 3.69)              | 1.37<br>(1.11 to 1.73)              |   |
| Odds ratio   | 2.11<br>(1.79 to 2.53)              |                                     | >99.9%  |
| <b>Rose nonangina</b>                                      |                                     |                                     |   |
| Odds of improvement  | 1.62<br>(1.23 to 2.12)              | 0.96<br>(0.76 to 1.22)              |   |
| Odds ratio   | 1.69<br>(1.32 to 2.17)              |                                     | >99.9%  |
| <b>Daily angina episodes</b>                               |                                     |                                     |   |
| <b>Rose angina</b>   |                                     |                                     |   |
| Odds of improvement  | 3.60<br>(2.84 to 4.58)              | 1.60<br>(1.26 to 2.03)              |   |
| Odds ratio   | 2.25<br>(1.88 to 2.69)              |                                     | >99.9%  |

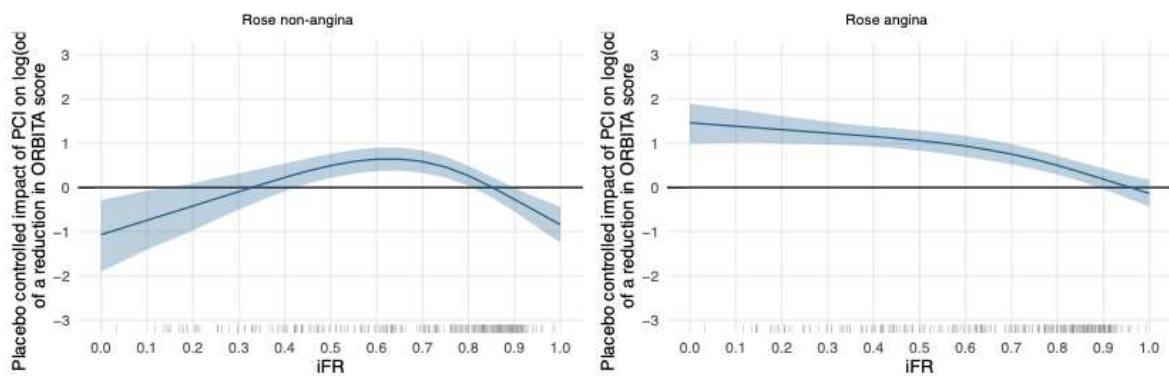
| <b>Rose nonangina</b> |                        |                        |        |
|-----------------------|------------------------|------------------------|--------|
| Odds of improvement   | 1.93<br>(1.46 to 2.58) | 0.97<br>(0.76 to 1.25) |        |
| Odds ratio            | 1.99<br>(1.53 to 2.55) |                        | >99.9% |

## Angina symptom score

Supplementary figure S83: result: angina symptom score

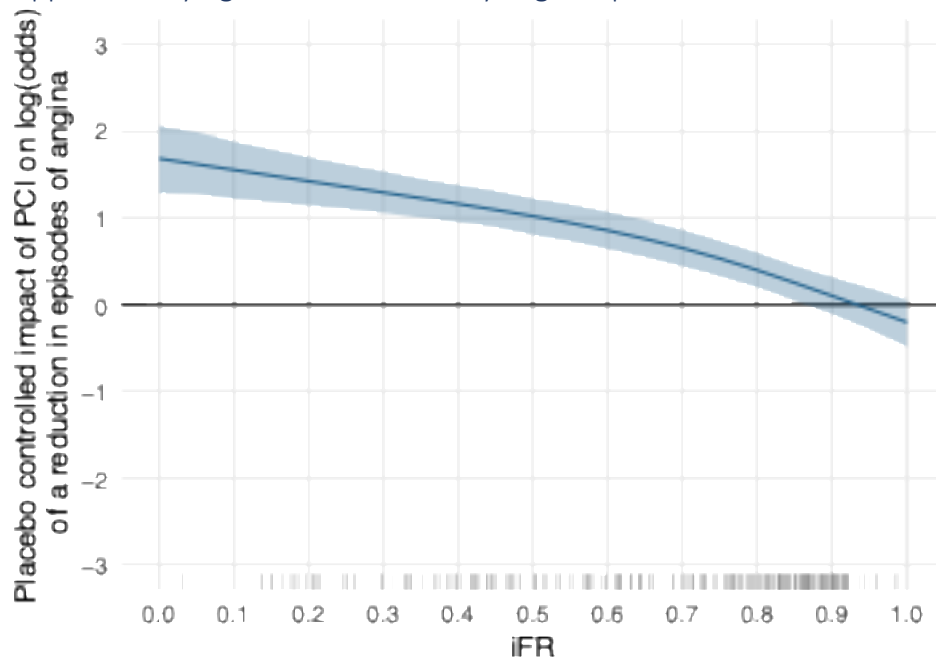


Supplementary figure S84: result: angina symptom score for Rose angina and Rose nonangina

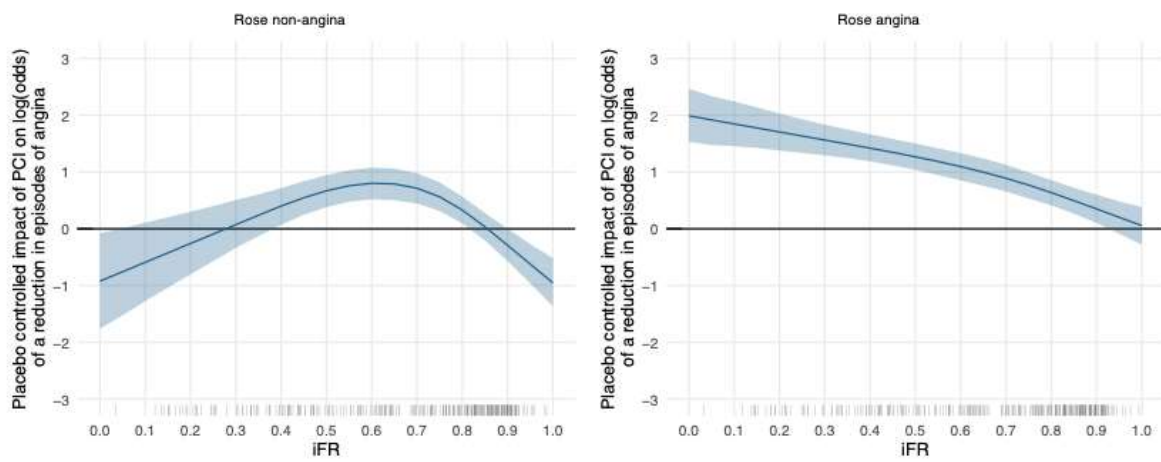


## Daily angina episodes

Supplementary figure S85: result: daily angina episodes



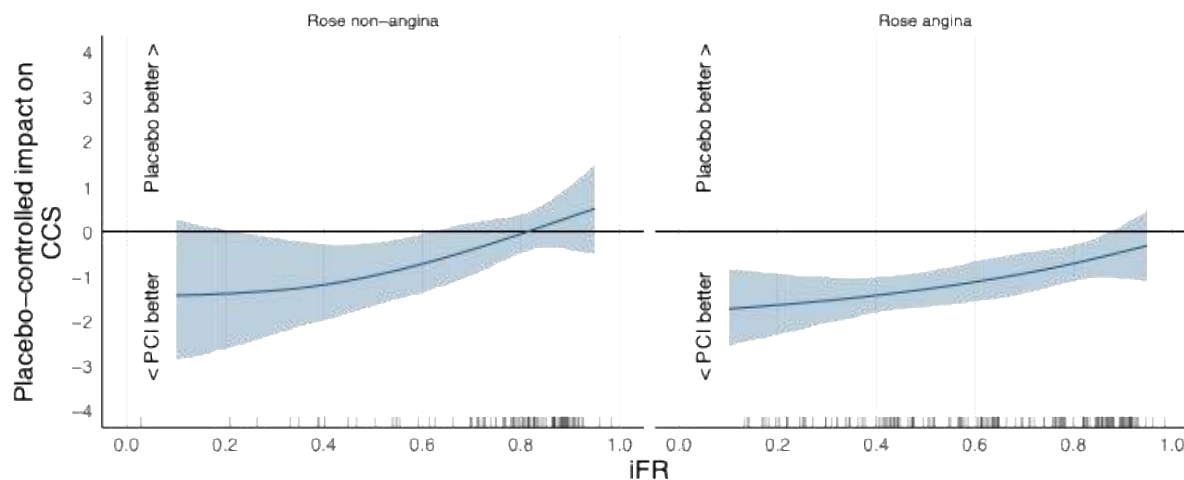
Supplementary figure S86: result: daily angina episodes for Rose angina and Rose nonangina





## CCS class

Supplementary figure S87: result: CCS class for Rose angina and Rose nonangina



Supplementary figure S88: Regression model and coefficients for CCS class

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
blrm(formula = num_ccs_fu ~ num_ccs_rand + Treatment * rcs(angio_stenosis_ifr,
3), data = analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

```
0 1 2 3 4
76 59 83 47 7
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes | Rank Discrim.<br>Indexes             |
|-------------|--|---------------------------|--------------------------------------|
| Obs 272     | B 0.204 [0.2, 0.21]                          | g 1.201 [0.932, 1.491]    | C' 0.704 [0.692, 0.713]              |
| Draws 40000 |  | #p 0.246 [0.206, 0.284]   | D <sub>xy</sub> 0.408 [0.383, 0.427] |
| Chains 4    |  | EV 0.19 [0.128, 0.246]    |                                      |
| Time 22.3s  |  | v 1.189 [0.667, 1.795]    |                                      |
| p 6         |  | vp 0.047 [0.032, 0.062]   |                                      |

|   | Mean $\beta$ | Median $\beta$ | S.E.   | Lower   | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|--------|---------|---------|-------------------|----------|
| y $\geq$ 1                                  | 0.5205       | 0.5104         | 0.9155 | -1.2570 | 2.3153  | 0.7136            | 1.02     |
| y $\geq$ 2                                  | -0.6248      | -0.6324        | 0.9162 | -2.4174 | 1.1635  | 0.2490            | 1.02     |
| y $\geq$ 3                                  | -2.3184      | -2.3162        | 0.9287 | -4.1030 | -0.4768 | 0.0065            | 1.01     |
| y $\geq$ 4                                  | -4.7526      | -4.7438        | 0.9923 | -6.7941 | -2.9089 | 0.0000            | 0.99     |
| num_ccs_rand                                | 0.9446       | 0.9439         | 0.2081 | 0.5439  | 1.3607  | 1.0000            | 1.02     |
| Treatment=PCI                               | -4.6833      | -4.6604        | 1.2216 | -7.0258 | -2.2633 | 0.0001            | 0.96     |
| angio_stenosis_ifr                          | -1.3564      | -1.3475        | 1.6216 | -4.5494 | 1.7877  | 0.2020            | 0.98     |
| angio_stenosis_ifr'                         | 0.0946       | 0.0932         | 1.6036 | -3.0584 | 3.2339  | 0.5230            | 1.00     |
| Treatment=PCI $\times$ cardio_stenosis_ifr  | 4.8722       | 4.8388         | 2.4431 | 0.0082  | 9.5335  | 0.9790            | 1.02     |
| Treatment=PCI $\times$ cardio_stenosis_ifr' | 0.5525       | 0.5699         | 2.3774 | -4.1512 | 5.1659  | 0.5923            | 0.99     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S89: Regression model and coefficients for CCS class for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
blrm(formula = num_ccs_fu ~ num_ccs_rand + Treatment * rcs(angio_stenosis_ifr,
  3) * rose_is_angina_random, data = rose_analysis_d, pcontrast = pcon,
  iter = 20000, chains = 4, refresh = 100, progress = file.path(output_dir,
    "interact_res2.progress.txt"), loo = FALSE, ppairs = NULL,
  method = "sampling", file = file.path(output_dir, "interact_res2.blrm.rds"))
```

Frequencies of Responses

```
0 1 2 3 4
69 53 72 44 5
```

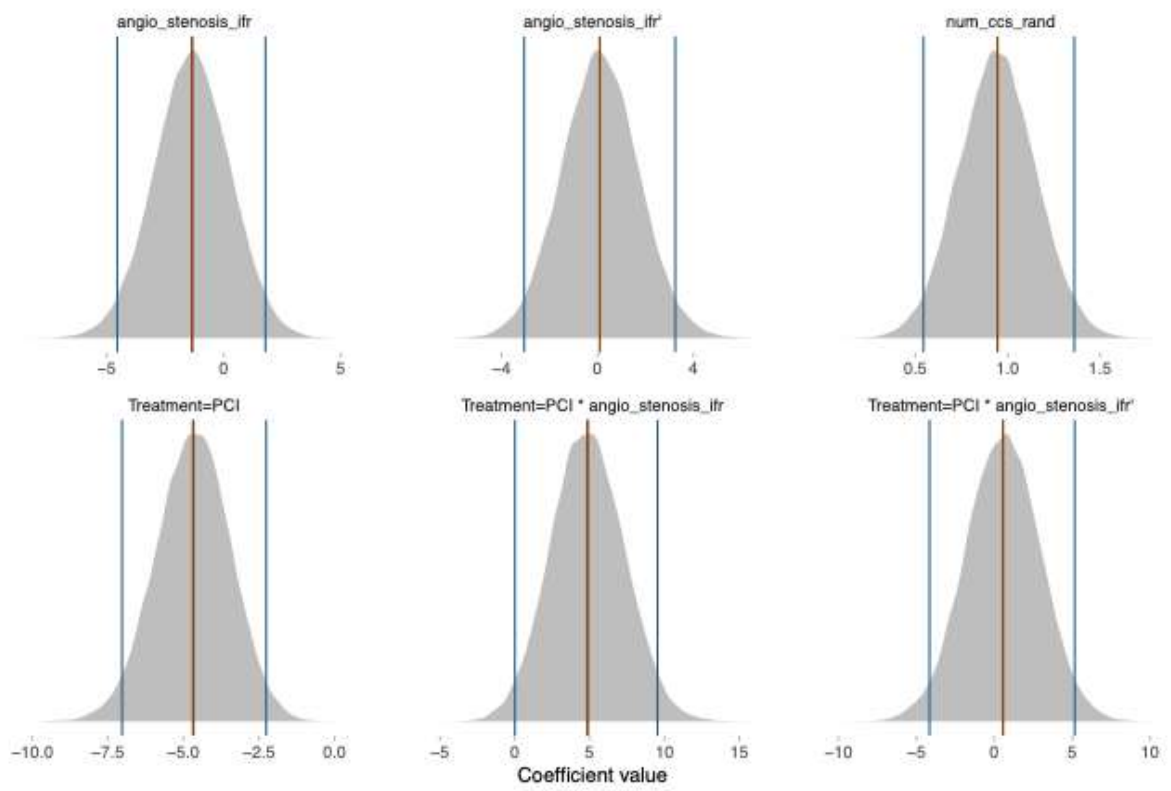
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes            |
|-------------|--|-------------------------------------|-------------------------------------|
| Obs 243     | B 0.179 [0.174, 0.187]                       | g 1.358 [1.055, 1.676]              | C 0.713 [0.699, 0.725]              |
| Draws 40000 |  | g <sub>p</sub> 0.227 [0.187, 0.272] | D <sub>xy</sub> 0.426 [0.399, 0.45] |
| Chains 4    |  | EV 0.222 [0.15, 0.307]              |                                     |
| Time 26.5s  |  | v 1.475 [0.819, 2.145]              |                                     |
| p 12        |  | vp 0.045 [0.029, 0.063]             |                                     |

|   | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β=0) | Symmetry |
|---|---------|----------|--------|----------|---------|---------|----------|
| ye1   | -0.2659 | -0.3006  | 1.4490 | -3.0371  | 2.6433  | 0.4181  | 1.08     |
| ye2   | -1.4471 | -1.4842  | 1.4491 | -4.2758  | 1.4180  | 0.1570  | 1.08     |
| ye3   | -3.1662 | -3.2005  | 1.4684 | -6.0121  | -0.2661 | 0.0189  | 1.08     |
| ye4   | -5.9215 | -5.9487  | 1.5442 | -8.9294  | -2.8812 | 0.0002  | 1.06     |
| num_ccs_rand  | 1.0506  | 1.0493   | 0.2255 | 0.6046   | 1.4887  | 1.0000  | 1.02     |
| Treatment=PCI   | -4.5322 | -4.4498  | 3.2379 | -11.1493 | 1.5888  | 0.0731  | 0.91     |
| angio_stenosis_ifr  | -0.2786 | -0.2033  | 2.7667 | -5.6039  | 5.2404  | 0.4714  | 0.93     |
| angio_stenosis_ifr <sup>2</sup>   | -1.1928 | -1.2301  | 2.7194 | -6.4784  | 4.1645  | 0.3255  | 1.03     |
| rose_is_angina_random   | 0.3870  | 0.4075   | 1.6905 | -2.9908  | 3.6810  | 0.5976  | 0.95     |
| Treatment=PCI × angio_stenosis_ifr                                      | 5.2836  | 5.1870   | 5.8836 | -5.9511  | 17.1547 | 0.8170  | 1.07     |
| Treatment=PCI × angio_stenosis_ifr <sup>2</sup>                         | 0.6594  | 0.6880   | 4.9434 | -8.9458  | 10.5115 | 0.5568  | 0.98     |
| Treatment=PCI × rose_is_angina_random                                   | 0.0826  | 0.0056   | 3.5506 | -6.6860  | 7.2198  | 0.5007  | 1.06     |
| angio_stenosis_ifr × rose_is_angina_random                              | -0.6654 | -0.6971  | 3.4500 | -7.2842  | 6.3564  | 0.4169  | 1.04     |
| angio_stenosis_ifr <sup>2</sup> × rose_is_angina_random                 | 1.6011  | 1.6255   | 3.4438 | -5.2401  | 8.3825  | 0.6838  | 1.00     |
| Treatment=PCI × angio_stenosis_ifr × rose_is_angina_random              | -1.5375 | -1.4641  | 6.6517 | -14.3370 | 11.6414 | 0.4126  | 0.96     |
| Treatment=PCI × angio_stenosis_ifr <sup>2</sup> × rose_is_angina_random | -0.1562 | -0.1728  | 5.8552 | -11.6582 | 11.2575 | 0.4880  | 1.02     |

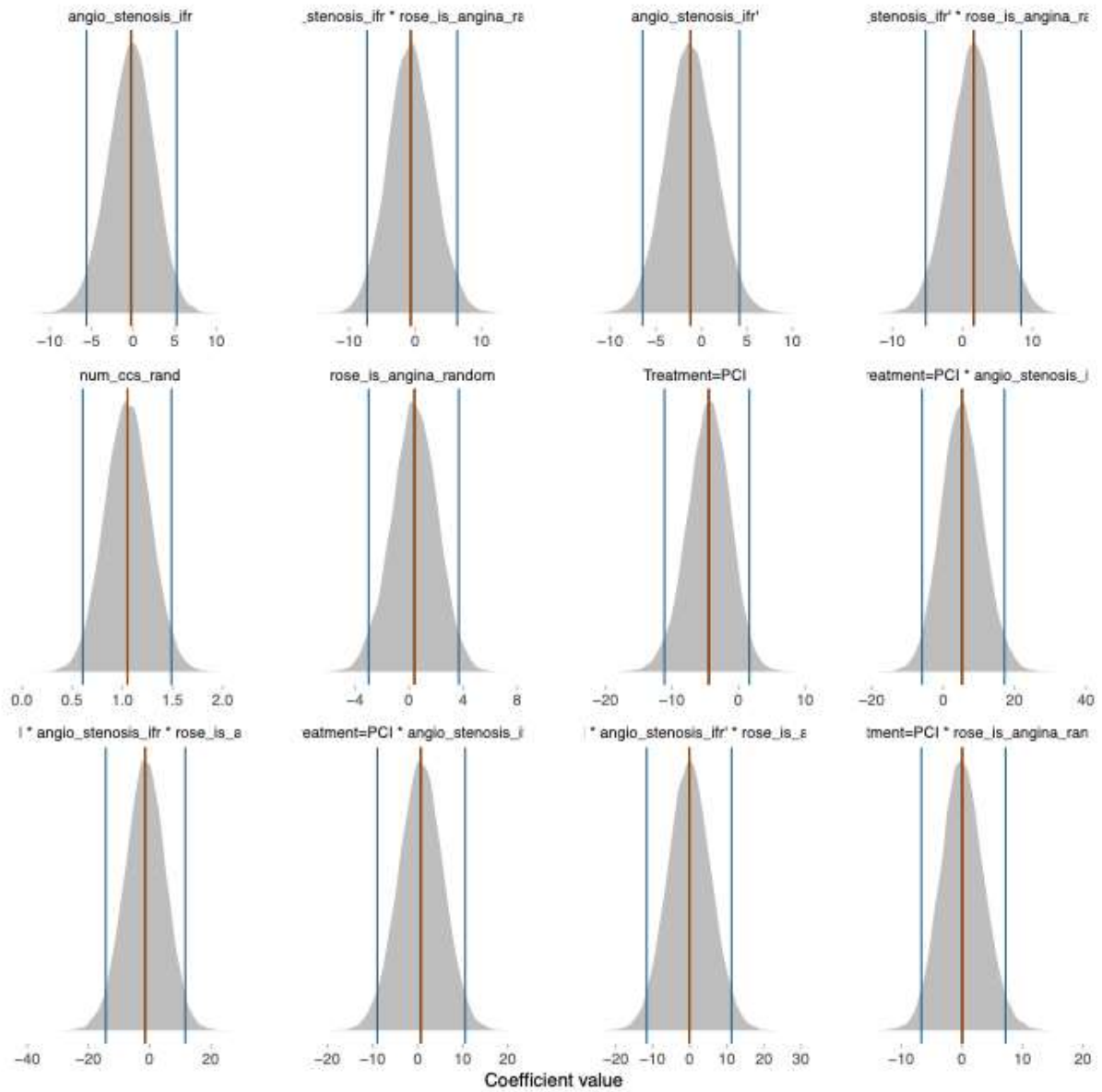
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

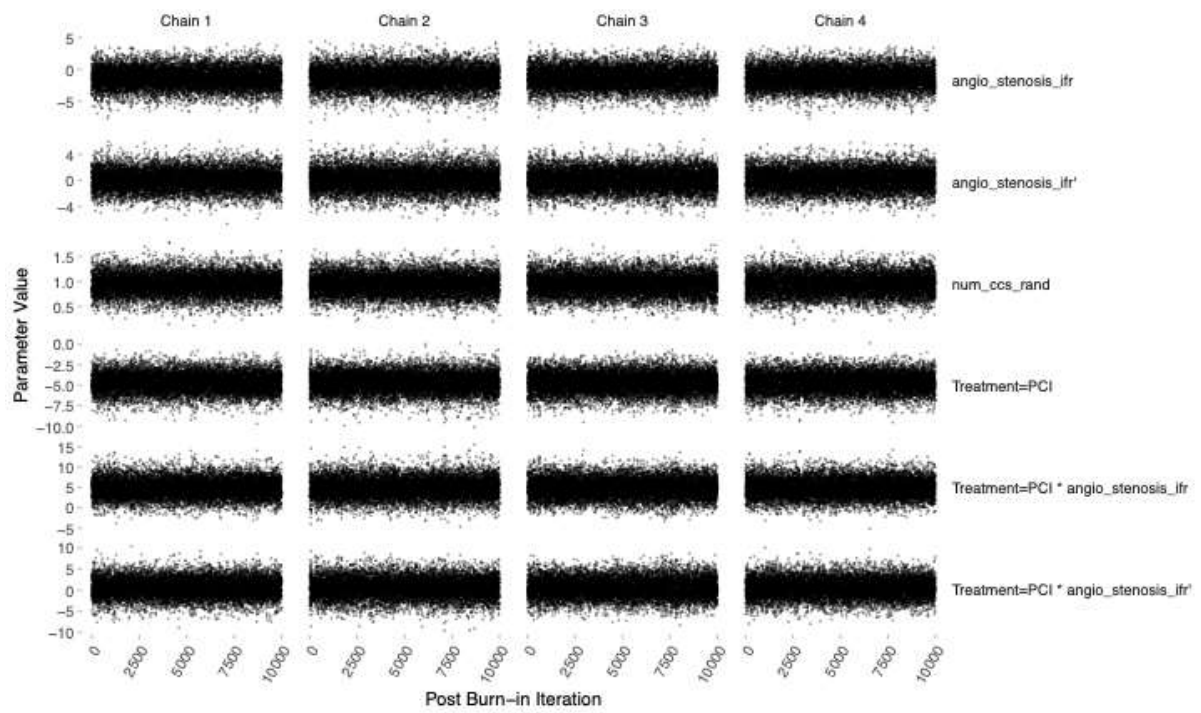
Supplementary figure S90: coefficient density plots: CCS class



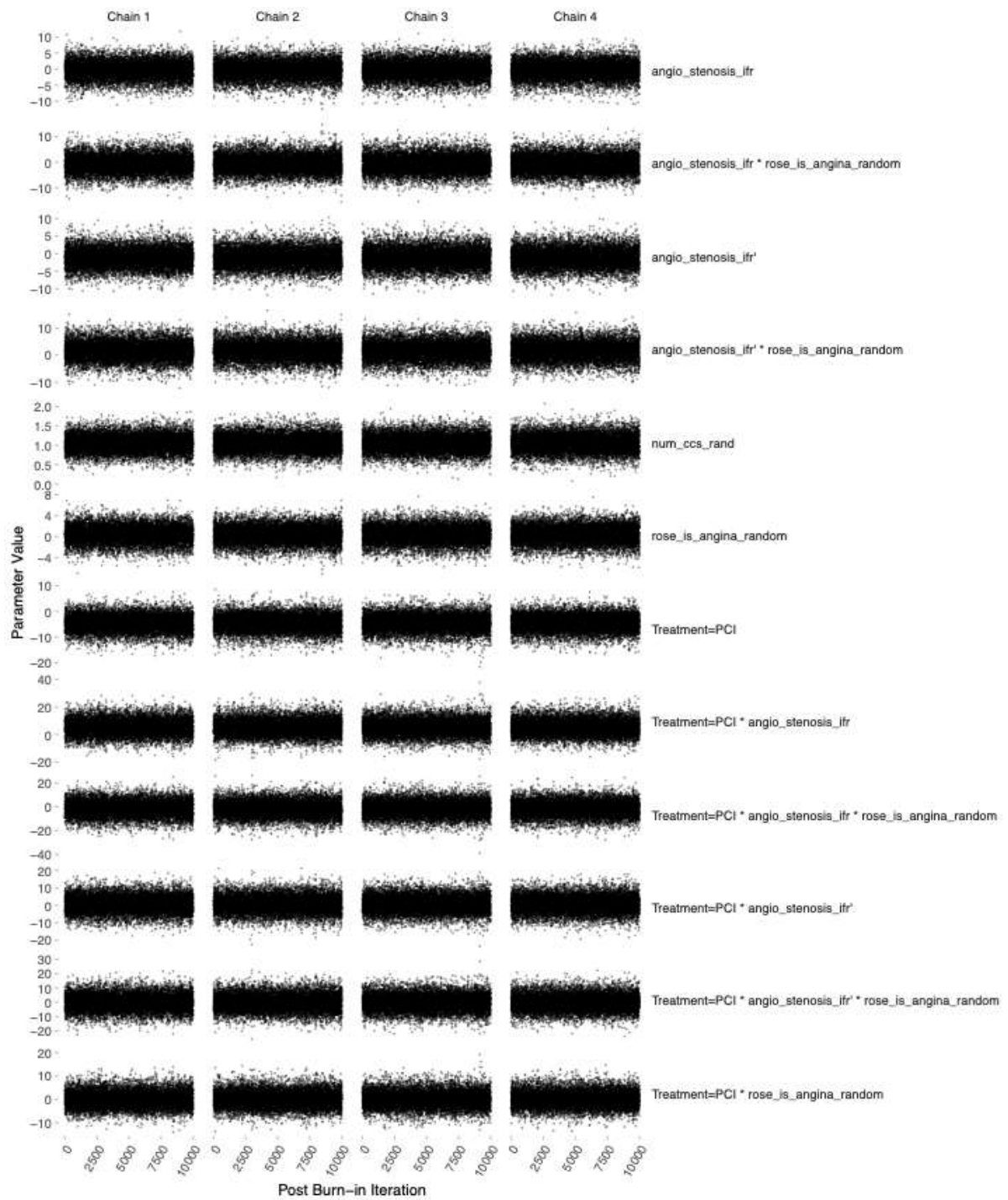
Supplementary figure S91: coefficient density plots: CCS class for Rose angina and Rose nonangina



Supplementary figure S92: chain plot of MCMC draws for CCS class

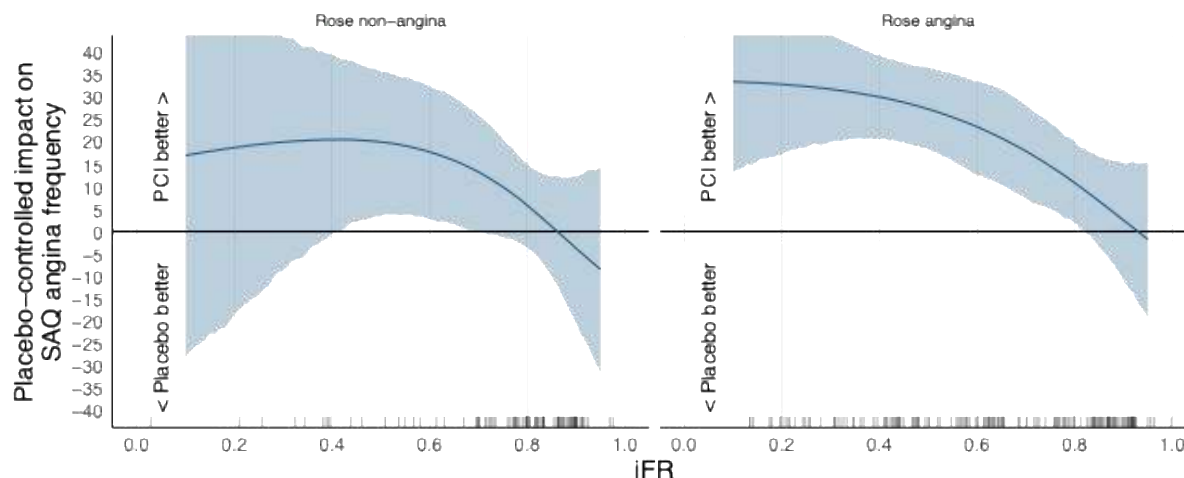


Supplementary figure S93: chain plot of MCMC draws for CCS class for Rose angina and Rose nonangina



## SAQ angina frequency

Supplementary figure S94: result: SAQ angina frequency for Rose angina and Rose nonangina



Supplementary figure S95: Regression model and coefficients for SAQ angina frequency

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.233 for Intercepts

```
blrm(formula = outcome_saq_angina_freq_post ~ rcs(outcome_saq_angina_freq_pre,
3) * Treatment * rcs(angio_stenosis_ifr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

```
0 20 30 40 50 60 70 80 90 100
1 14 8 20 9 34 35 39 33 77
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 270     | B 0.189 [0.184, 0.195]                       | g 1.454 [1.115, 1.725]              | C 0.724 [0.714, 0.734]               |
| Draws 40000 |  | g <sub>p</sub> 0.282 [0.242, 0.317] | D <sub>xy</sub> 0.449 [0.429, 0.467] |
| Chains 4    |  | EV 0.243 [0.178, 0.305]             |                                      |
| Time 10.9s  |  | v 1.673 [0.963, 2.323]              |                                      |
| p 7         |  | vp 0.06 [0.045, 0.076]              |                                      |

|   | Mean $\beta$ | Median $\beta$ | S.E.   | Lower   | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|--------|---------|---------|-------------------|----------|
| y $\geq$ 20                                 | 4.0796       | 3.9812         | 1.3887 | 1.4553  | 6.8517  | 0.9998            | 1.26     |
| y $\geq$ 30                                 | 0.9260       | 0.9238         | 0.9071 | -0.8489 | 2.6936  | 0.8452            | 1.00     |
| y $\geq$ 40                                 | 0.3763       | 0.3785         | 0.9093 | -1.3710 | 2.1957  | 0.6633            | 1.00     |
| y $\geq$ 50                                 | -0.4691      | -0.4613        | 0.9136 | -2.2838 | 1.2927  | 0.3031            | 0.99     |
| y $\geq$ 60                                 | -0.7481      | -0.7420        | 0.9139 | -2.5616 | 1.0210  | 0.2074            | 0.99     |
| y $\geq$ 70                                 | -1.5669      | -1.5596        | 0.9193 | -3.3548 | 0.2393  | 0.0432            | 0.98     |
| y $\geq$ 80                                 | -2.2798      | -2.2719        | 0.9264 | -4.0874 | -0.4566 | 0.0062            | 0.99     |
| y $\geq$ 90                                 | -3.0502      | -3.0442        | 0.9301 | -4.8808 | -1.2460 | 0.0004            | 0.99     |
| y $\geq$ 100                                | -3.7423      | -3.7343        | 0.9323 | -5.6122 | -1.9724 | 0.0000            | 0.99     |
| outcome_saq_angina_freq_pre                 | 0.0225       | 0.0225         | 0.0133 | -0.0039 | 0.0482  | 0.9542            | 1.00     |
| outcome_saq_angina_freq_pre'                | 0.0212       | 0.0211         | 0.0131 | -0.0049 | 0.0466  | 0.9471            | 1.02     |
| Treatment=PCI                               | 4.2189       | 4.2052         | 1.1568 | 1.9582  | 6.4930  | 0.9998            | 1.04     |
| angio_stenosis_ifr                          | -0.5905      | -0.6006        | 1.5233 | -3.4911 | 2.4970  | 0.3458            | 1.02     |
| angio_stenosis_ifr'                         | 1.8886       | 1.8949         | 1.5585 | -1.2125 | 4.8835  | 0.8876            | 1.00     |
| Treatment=PCI $\times$ cardio_stenosis_ifr  | -3.8124      | -3.7917        | 2.3507 | -8.4798 | 0.6608  | 0.0498            | 0.98     |
| Treatment=PCI $\times$ cardio_stenosis_ifr' | -1.7010      | -1.7007        | 2.3755 | -6.2567 | 2.9961  | 0.2366            | 1.01     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S96: Regression model and coefficients for SAQ angina frequency for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.253 for Intercepts

```
blrm(formula = outcome_saq_angina_freq_post ~ rcs(outcome_saq_angina_freq_pre,
3) + Treatment * rcs(angio_stenosis_ifr, 3) * rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

20 30 40 50 60 70 80 90 100  
14 8 18 7 28 31 36 29 70

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes      | Rank Discrim.<br>Indexes      |
|-------------|--|--------------------------------|-------------------------------|
| Obs 241     | B 0.19 [0.181, 0.199]                        | $\mu$ 1.541 [1.241, 1.897]     | C 0.722 [0.708, 0.735]        |
| Draws 40000 |  | $\beta_P$ 0.292 [0.255, 0.331] | $D_{xy}$ 0.445 [0.417, 0.471] |
| Chains 4    |  | EV 0.259 [0.197, 0.328]        |                               |
| Time 10.6s  |  | $v$ 1.879 [1.024, 2.615]       |                               |
| p 13        |  | vp 0.064 [0.049, 0.082]        |                               |

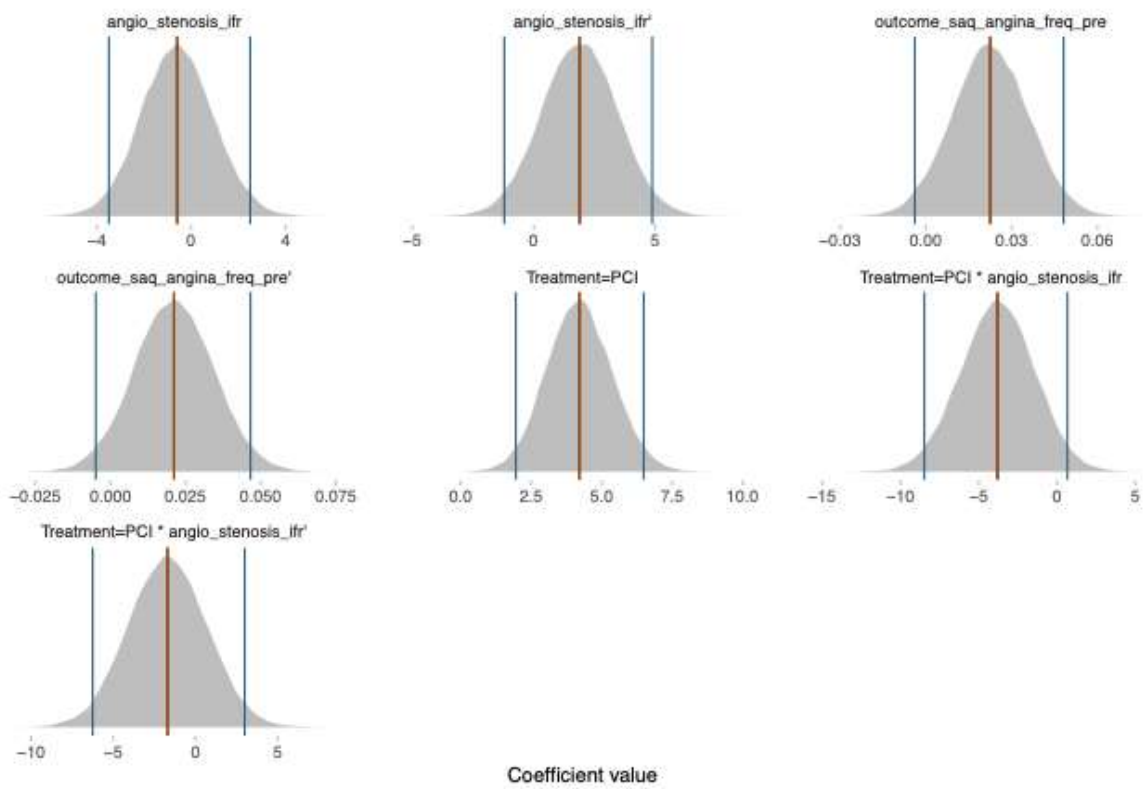
|  | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|--|--------------|----------------|--------|----------|---------|-------------------|----------|
| ya<30  | 1.4365       | 1.4592         | 1.3061 | -1.1338  | 3.9995  | 0.8659            | 0.96     |
| ya<40  | 0.8372       | 0.8644         | 1.3029 | -1.7364  | 3.3811  | 0.7442            | 0.96     |
| ya<50  | -0.0039      | 0.0230         | 1.3039 | -2.6025  | 2.5121  | 0.5075            | 0.96     |
| ya<60  | -0.2523      | -0.2252        | 1.3046 | -2.8339  | 2.2972  | 0.4289            | 0.95     |
| ya<70  | -1.0295      | -1.0032        | 1.3063 | -3.6349  | 1.4760  | 0.2148            | 0.94     |
| ya<80  | -1.7531      | -1.7247        | 1.3123 | -4.3171  | 0.8139  | 0.0873            | 0.94     |
| ya<90  | -2.5579      | -2.5294        | 1.3129 | -5.1211  | 0.0232  | 0.0229            | 0.95     |
| ya<100   | -3.2415      | -3.2170        | 1.3129 | -5.8552  | -0.7161 | 0.0057            | 0.94     |
| outcome_saq_angina_freq_pre                                  | 0.0286       | 0.0286         | 0.0141 | -0.0011  | 0.0565  | 0.9787            | 1.01     |
| outcome_saq_angina_freq_pre'                                 | 0.0136       | 0.0136         | 0.0138 | -0.0130  | 0.0412  | 0.8386            | 1.00     |
| Treatment=PCI  | 2.1657       | 2.1125         | 3.0184 | -3.8446  | 7.9884  | 0.7619            | 1.05     |
| angio_stenosis_ifr   | -2.0606      | -2.0988        | 2.4255 | -6.8561  | 2.7110  | 0.1931            | 1.05     |
| angio_stenosis_ifr'  | -3.3568      | -3.3764        | 2.5621 | -1.5693  | 8.4687  | 0.9042            | 1.00     |
| rose_is_angina_random  | -0.8036      | -0.8266        | 1.5247 | -3.8085  | 2.1717  | 0.2926            | 1.03     |
| Treatment=PCI x cardio_stenosis_ifr                          | -0.8514      | -0.7689        | 5.5619 | -11.8724 | 9.8831  | 0.4430            | 0.96     |
| Treatment=PCI x cardio_stenosis_ifr'                         | -3.1880      | -3.1895        | 4.9165 | -12.7049 | 6.4844  | 0.2565            | 1.02     |
| Treatment=PCI x rose_is_angina_random                        | 2.2711       | 2.3175         | 3.3256 | -4.4157  | 8.6436  | 0.7552            | 0.97     |
| angio_stenosis_ifr x rose_is_angina_random                   | 1.6227       | 1.6532         | 3.1687 | -4.6723  | 7.8321  | 0.7022            | 0.97     |
| angio_stenosis_ifr' x rose_is_angina_random                  | -1.7537      | -1.7715        | 3.3122 | -8.1948  | 4.7883  | 0.2966            | 1.01     |
| Treatment=PCI x cardio_stenosis_ifr x rose_is_angina_random  | -3.0160      | -3.0804        | 6.3012 | -15.5042 | 9.2798  | 0.3118            | 1.02     |
| Treatment=PCI x cardio_stenosis_ifr' x rose_is_angina_random | 1.7868       | 1.8102         | 5.7755 | -9.5401  | 12.9378 | 0.6230            | 0.99     |

Contrasts Given Priors

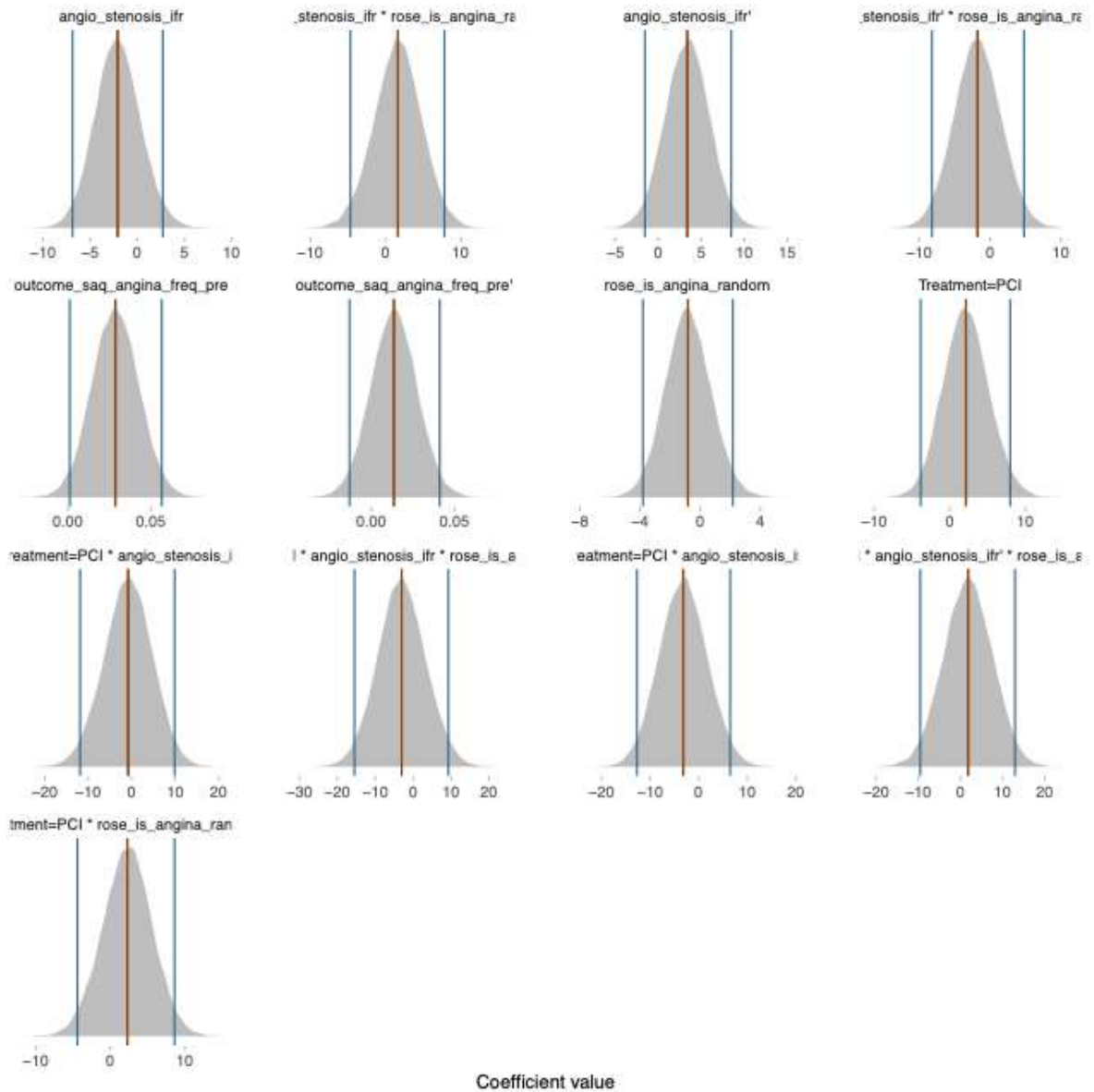
```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127683599)
```



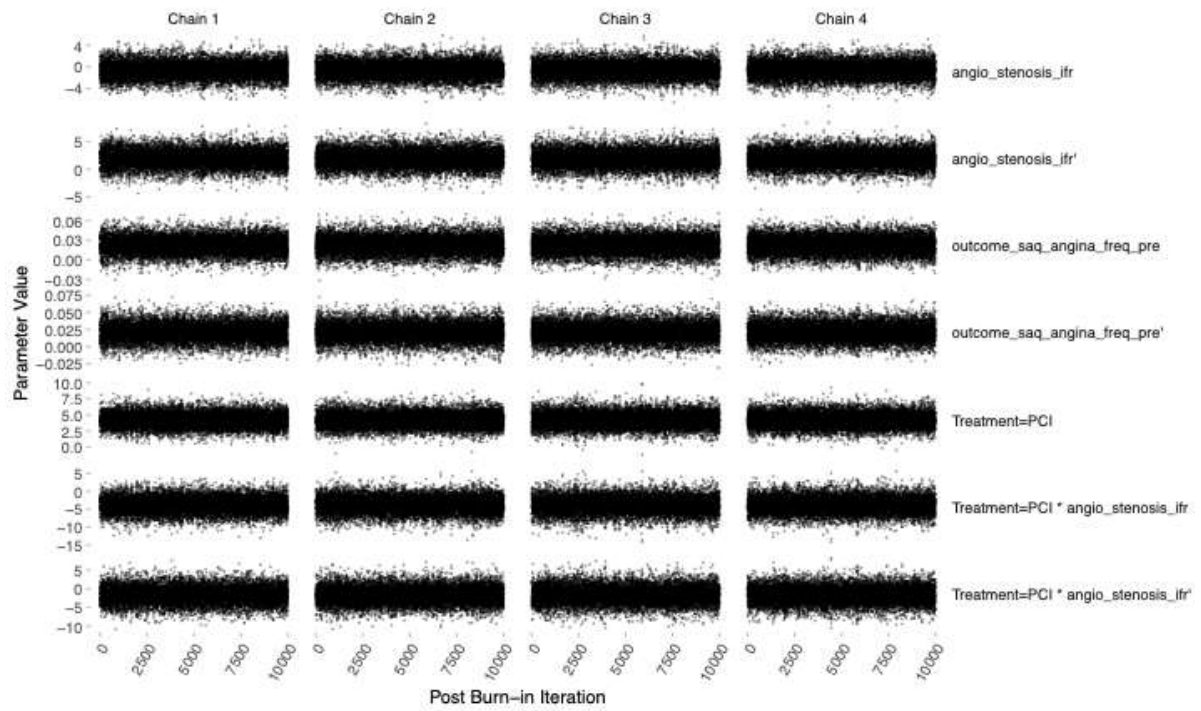
Supplementary figure S97: coefficient density plots: SAQ angina frequency



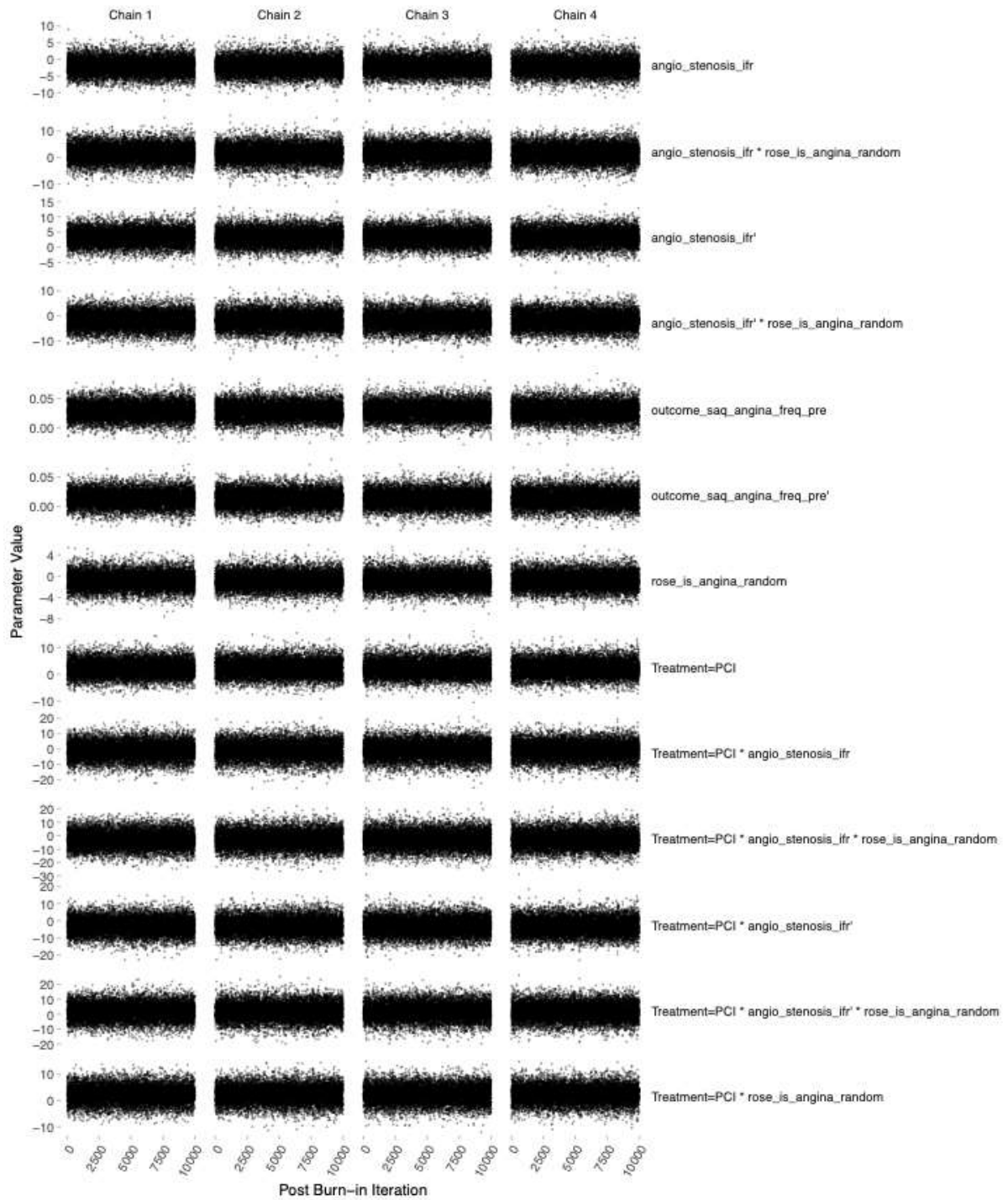
Supplementary figure S98: coefficient density plots: SAQ angina frequency for Rose angina and Rose nonangina



Supplementary figure S99: chain plot of MCMC draws for SAQ angina frequency

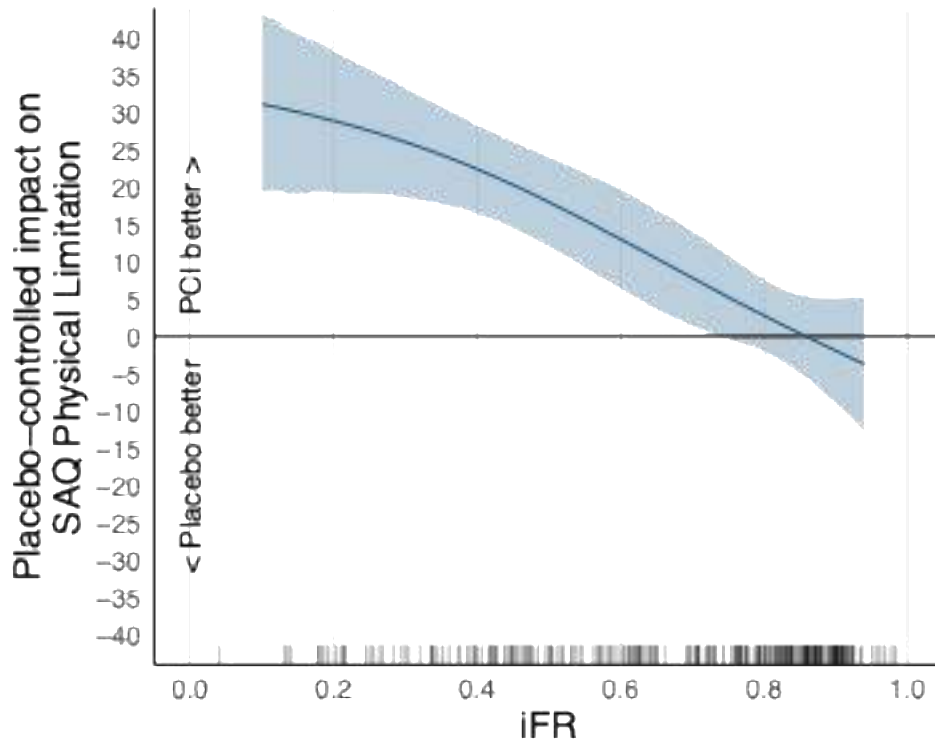


Supplementary figure S100: chain plot of MCMC draws for SAQ angina frequency for Rose angina and Rose nonangina

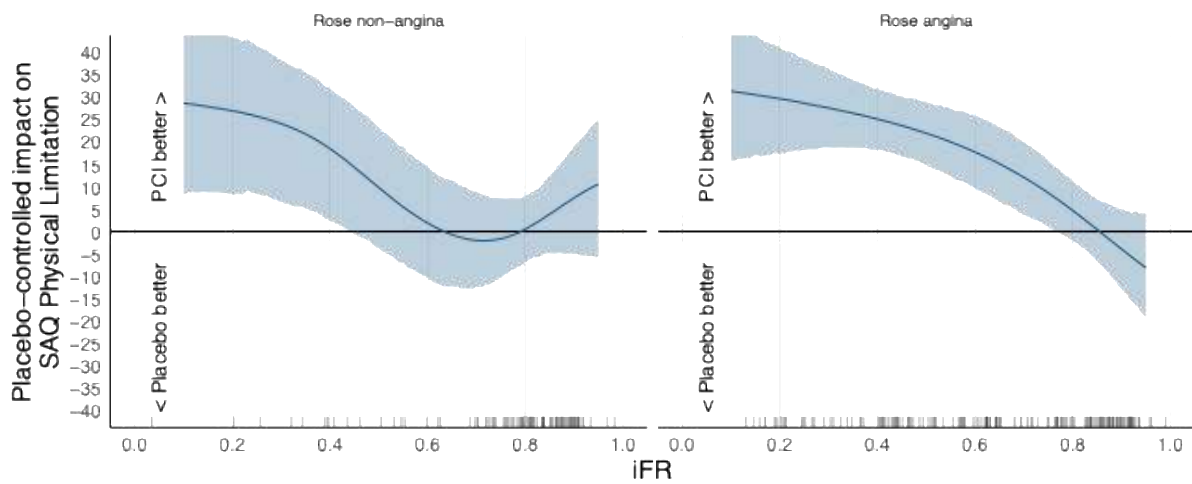


SAQ physical limitation

Supplementary figure S101: result: SAQ physical limitation



Supplementary figure S102: result: SAQ physical limitation for Rose angina and Rose nonangina



Supplementary figure S103: Regression model and coefficients for SAQ physical limitation

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.062 for Intercepts

```
blrm(formula = outcome_saq_pl_post ~ rcs(outcome_saq_pl_pre,
3) + Treatment * rcs(angio_stenosis_ifr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

|        |        |        |        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2,778  | 5,556  | 19,444 | 22,222 | 25     | 27,778 | 30,556 | 33,333 | 36,111 | 38,889 | 40,278 | 41,667 | 44,444 |
| 1      | 1      | 1      | 3      | 7      | 5      | 4      | 6      | 1      | 1      | 1      | 2      | 3      |
| 47,222 | 58     | 51,389 | 52,778 | 54,167 | 55,556 | 56,944 | 58,333 | 59,722 | 61,111 | 62.5   | 63,889 | 66,667 |
| 4      | 18     | 2      | 6      | 2      | 10     | 1      | 4      | 1      | 7      | 2      | 4      | 15     |
| 68,056 | 69,444 | 72,222 | 75     | 77,778 | 79,167 | 80,556 | 83,333 | 84,722 | 86,111 | 88,889 | 90,278 | 91,667 |
| 1      | 9      | 9      | 7      | 11     | 1      | 5      | 10     | 1      | 11     | 7      | 2      | 7      |
| 93,056 | 94,444 | 95,833 | 97,222 | 100    |        |        |        |        |        |        |        |        |
| 2      | 11     | 2      | 16     | 46     |        |        |        |        |        |        |        |        |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 262     | B 0.168 [0.163, 0.174]                       | g 2.176 [1.851, 2.532]              | C 0.764 [0.758, 0.769]               |
| Draws 40000 |  | g <sub>p</sub> 0.349 [0.317, 0.376] | D <sub>xy</sub> 0.527 [0.516, 0.538] |
| Chains 4    |  | EV 0.371 [0.304, 0.431]             |                                      |
| Time 29.7s  |  | v 3.883 [2.712, 5.094]              |                                      |
| p 7         |  | vp 0.093 [0.077, 0.109]             |                                      |

|                                     | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|-------------------------------------|---------|----------|--------|----------|---------|---------|----------|
| outcome_saq_pl_pre                  | 0.1061  | 0.1060   | 0.0136 | 0.0800   | 0.1331  | 1.0000  | 1.02     |
| outcome_saq_pl_pre'                 | -0.0400 | -0.0400  | 0.0145 | -0.0690  | -0.0119 | 0.0025  | 1.00     |
| Treatment=PCI                       | 4.9361  | 4.9242   | 1.0826 | 2.7977   | 7.0410  | 1.0000  | 1.02     |
| angio_stenosis_ifr                  | 0.7586  | 0.7621   | 1.4832 | -2.1572  | 3.6570  | 0.6958  | 1.00     |
| angio_stenosis_ifr'                 | 1.3409  | 1.3428   | 1.5252 | -1.6864  | 4.3156  | 0.8130  | 0.99     |
| Treatment=PCI x angio_stenosis_ifr  | -6.0256 | -6.0220  | 2.2409 | -10.4516 | -1.6566 | 0.0041  | 1.00     |
| Treatment=PCI x angio_stenosis_ifr' | 0.5304  | 0.5276   | 2.2993 | -3.9675  | 5.0512  | 0.5900  | 1.00     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S104: Regression model and coefficients for SAQ physical limitation for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.065 for Intercepts

```
blrm(formula = outcome_saq_pl_post ~ rcs(outcome_saq_pl_pre,
3) + Treatment * rcs(angio_stenosis_ifr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|        |        |        |        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2,778  | 19,444 | 22,222 | 25     | 27,778 | 30,556 | 33,333 | 36,111 | 38,889 | 41,667 | 44,444 | 47,222 | 50     |
| 1      | 1      | 3      | 3      | 5      | 4      | 5      | 1      | 1      | 2      | 2      | 3      | 8      |
| 51,389 | 52,778 | 54,167 | 55,556 | 56,944 | 58,333 | 59,722 | 61,111 | 62.5   | 63,889 | 66,667 | 68,056 | 69,444 |
| 2      | 5      | 1      | 10     | 1      | 4      | 1      | 7      | 2      | 4      | 15     | 1      | 8      |
| 72,222 | 75     | 77,778 | 79,167 | 80,556 | 83,333 | 84,722 | 86,111 | 88,889 | 90,278 | 91,667 | 93,056 | 94,444 |
| 8      | 7      | 9      | 1      | 5      | 10     | 1      | 7      | 7      | 1      | 7      | 2      | 10     |
| 95,833 | 97,222 | 100    |        |        |        |        |        |        |        |        |        |        |
| 2      | 14     | 48     |        |        |        |        |        |        |        |        |        |        |

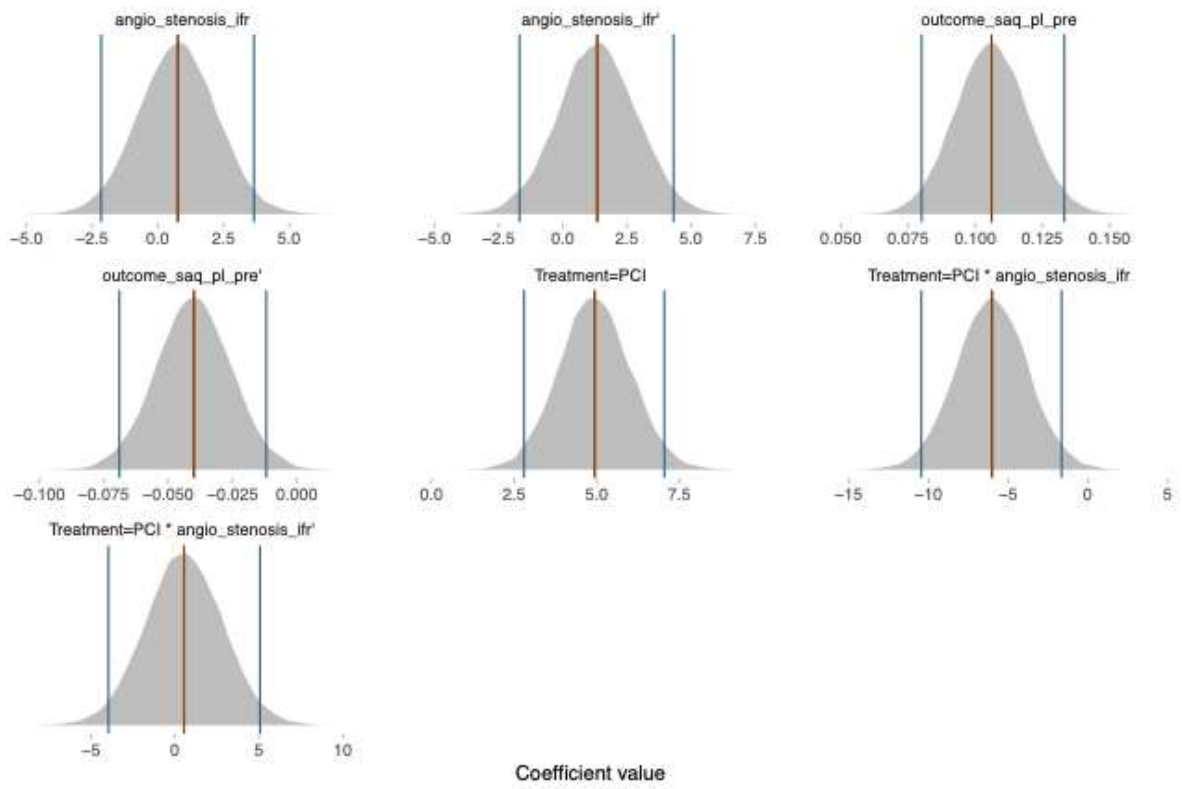
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes          | Rank Discrim.<br>Indexes             |
|-------------|--|------------------------------------|--------------------------------------|
| Obs 233     | B 0.173 [0.168, 0.179]                       | g 2.297 [1.959, 2.65]              | C 0.761 [0.753, 0.767]               |
| Draws 40000 |  | g <sub>p</sub> 0.36 [0.336, 0.389] | D <sub>xy</sub> 0.522 [0.506, 0.534] |
| Chains 4    |  | EV 0.399 [0.339, 0.458]            |                                      |
| Time 33.9s  |  | v 4.261 [3.121, 5.625]             |                                      |
| p 13        |  | vp 0.099 [0.085, 0.115]            |                                      |

|   | Mean β   | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|----------|----------|--------|----------|---------|---------|----------|
| outcome_saq_pl_pre  | 0.1067   | 0.1066   | 0.0148 | 0.0783   | 0.1361  | 1.0000  | 1.04     |
| outcome_saq_pl_pre'   | -0.0434  | -0.0433  | 0.0171 | -0.0760  | -0.0094 | 0.0058  | 0.98     |
| Treatment=PCI   | 7.5652   | 7.4732   | 3.3556 | 1.0476   | 14.1317 | 0.9902  | 1.06     |
| angio_stenosis_ifr  | 0.7563   | 0.7542   | 2.4894 | -4.1551  | 5.6232  | 0.6226  | 1.00     |
| angio_stenosis_ifr'   | 0.2826   | 0.2453   | 2.7235 | -4.9927  | 5.6640  | 0.5372  | 1.02     |
| rose_is_angina_random                                       | -0.4543  | -0.4530  | 1.4802 | -3.4064  | 2.4051  | 0.3787  | 1.01     |
| Treatment=PCI x angio_stenosis_ifr                          | -13.2726 | -13.1593 | 6.1089 | -25.3308 | -1.4964 | 0.0135  | 0.95     |
| Treatment=PCI x angio_stenosis_ifr'                         | 10.0225  | 9.9739   | 5.4066 | -0.5777  | 20.6659 | 0.9697  | 1.02     |
| Treatment=PCI x rose_is_angina_random                       | -2.8724  | -2.7995  | 3.5870 | -9.8346  | 4.2110  | 0.2117  | 0.94     |
| angio_stenosis_ifr x rose_is_angina_random                  | -0.0219  | -0.0324  | 3.1633 | -6.2589  | 6.1761  | 0.4958  | 1.00     |
| angio_stenosis_ifr' x rose_is_angina_random                 | 2.0892   | 2.1056   | 3.4276 | -4.7065  | 8.6948  | 0.7310  | 1.00     |
| Treatment=PCI x angio_stenosis_ifr x rose_is_angina_random  | 8.9908   | 8.8921   | 6.7289 | -4.0632  | 22.2308 | 0.9134  | 1.03     |
| Treatment=PCI x angio_stenosis_ifr' x rose_is_angina_random | -12.4652 | -12.4256 | 6.2330 | -24.7574 | -0.3874 | 0.0217  | 0.98     |

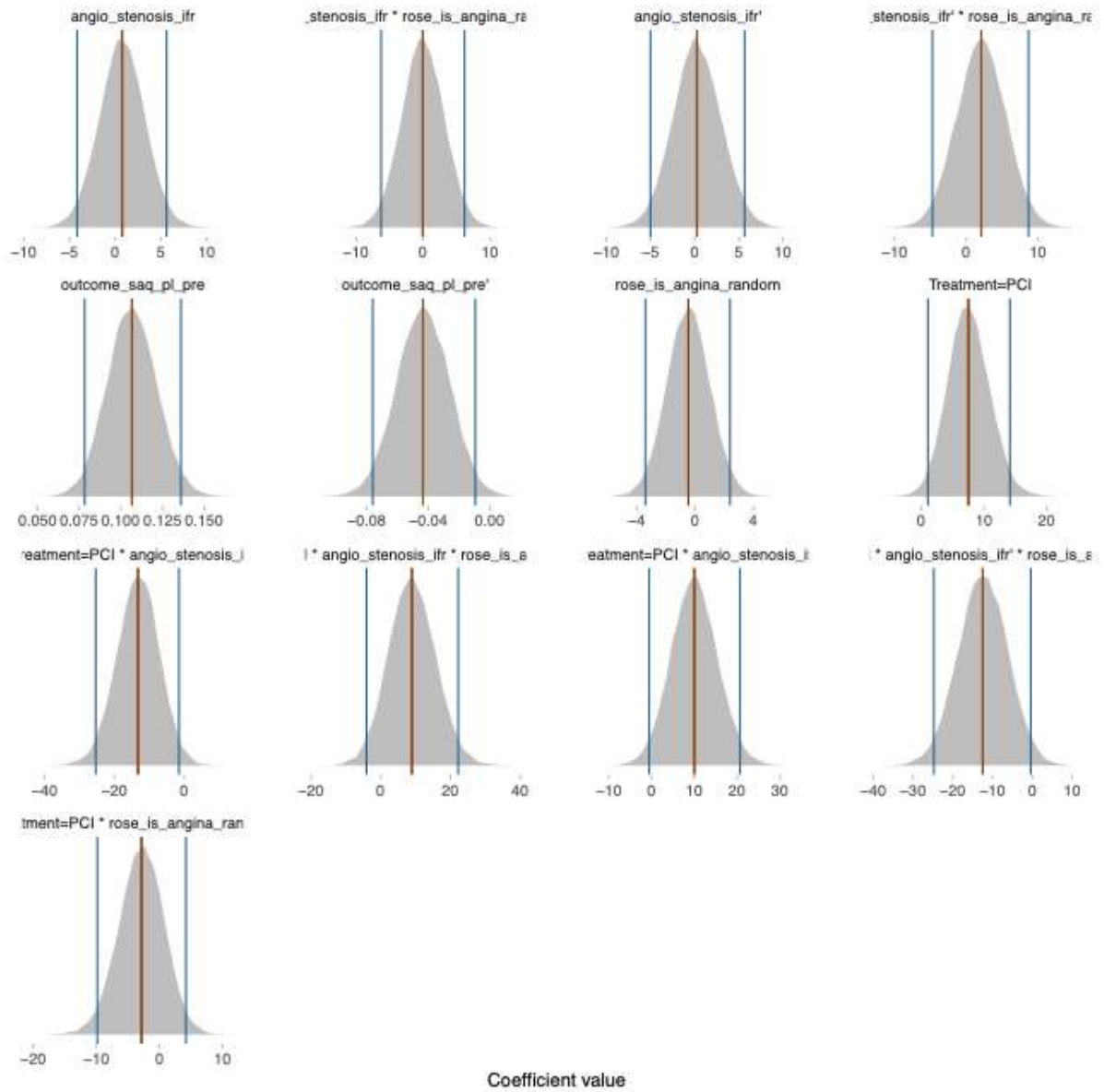
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S105: coefficient density plots: SAQ physical limitation

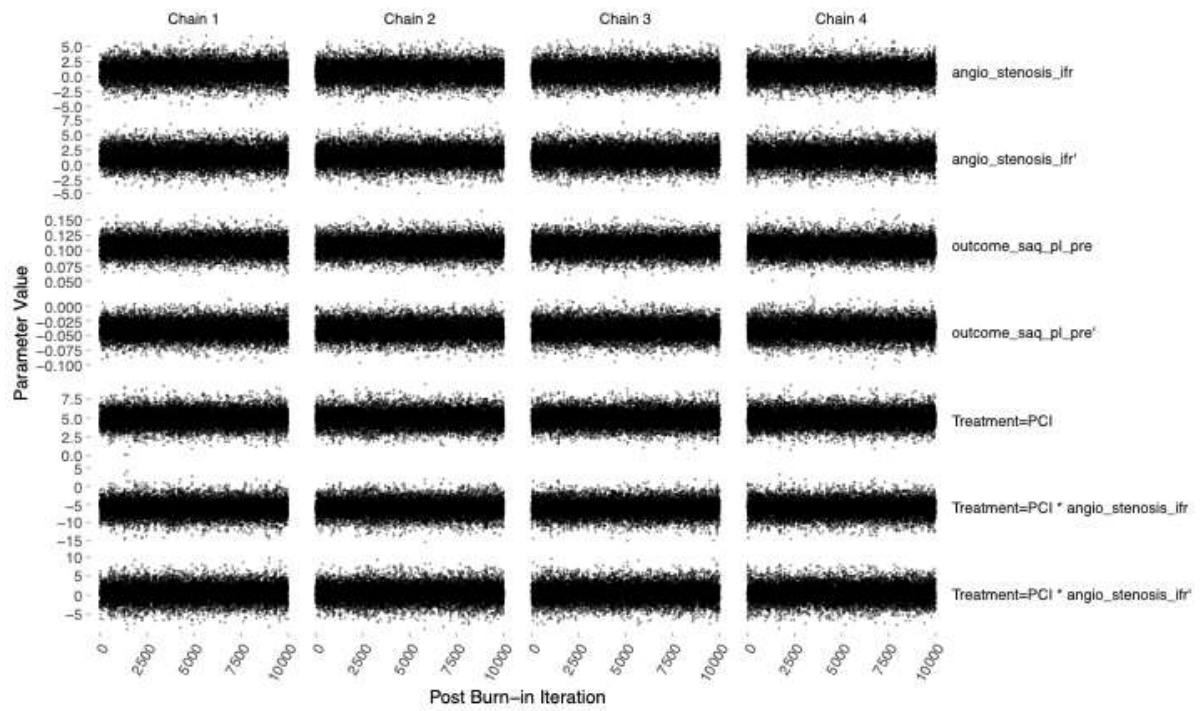


Supplementary figure S106: coefficient density plots: SAQ physical limitation for Rose angina and Rose nonangina

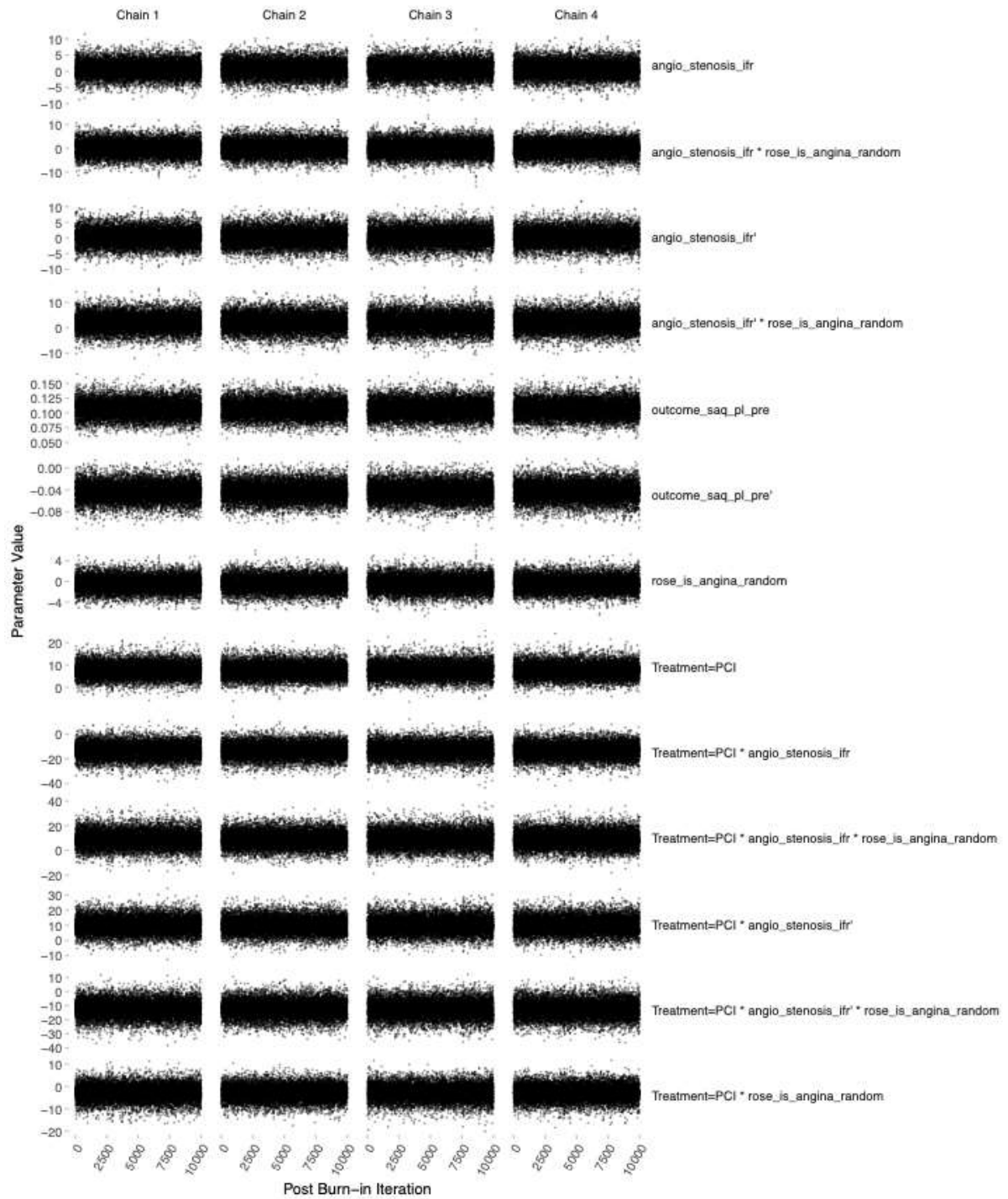




Supplementary figure S107: chain plot of MCMC draws for SAQ physical limitation

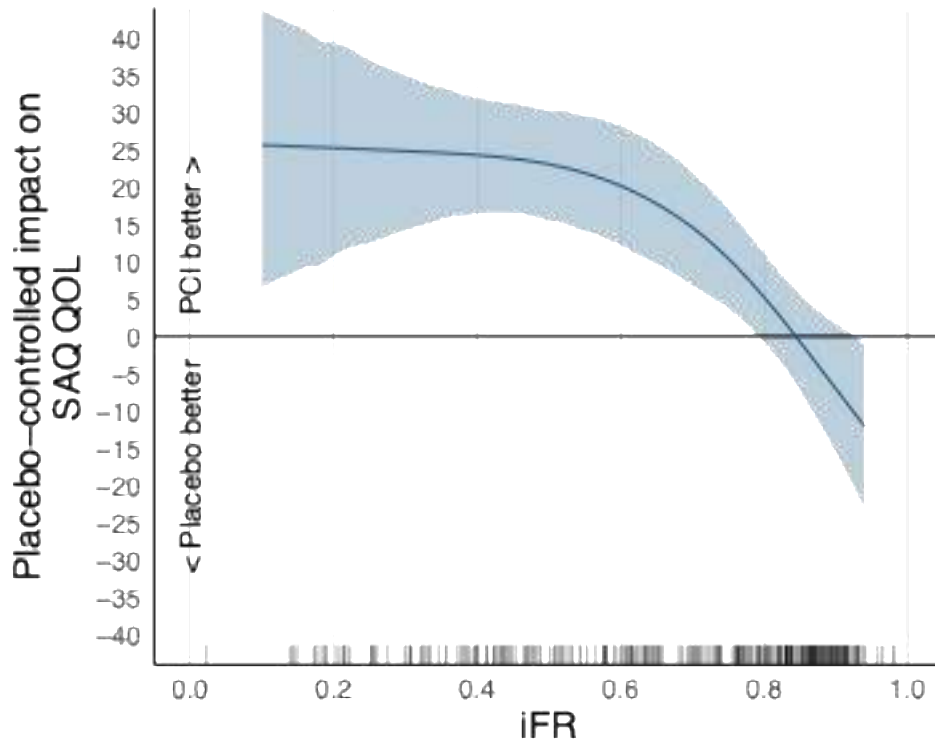


Supplementary figure S108: chain plot of MCMC draws for SAQ physical limitation for Rose angina and Rose nonangina

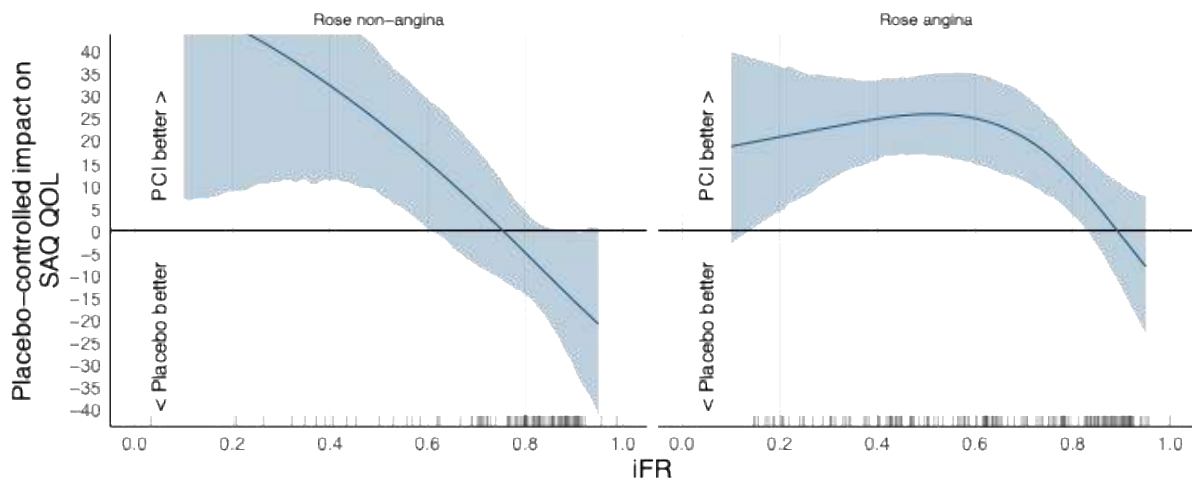


SAQ quality of life

Supplementary figure 109: result: SAQ quality of life



Supplementary figure 110: result: SAQ quality of life for Rose angina and Rose nonangina



Supplementary figure S111: Regression model and coefficients for SAQ quality of life

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_qol_post ~ rcs(outcome_saq_qol_pre,
3) + Treatment + rcs(angio_stenosis_ifr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

|     |       |        |    |        |        |    |        |      |        |    |        |        |
|-----|-------|--------|----|--------|--------|----|--------|------|--------|----|--------|--------|
| 0   | 8.333 | 16.667 | 25 | 33.333 | 41.667 | 50 | 58.333 | 62.5 | 66.667 | 75 | 83.333 | 91.667 |
| 3   | 7     | 9      | 25 | 17     | 28     | 37 | 30     | 1    | 26     | 19 | 31     | 18     |
| 100 |       |        |    |        |        |    |        |      |        |    |        |        |
| 18  |       |        |    |        |        |    |        |      |        |    |        |        |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 269     | B 0.196 [0.193, 0.2]                         | g 1.505 [1.22, 1.797]               | C 0.721 [0.713, 0.726]               |
| Draws 40000 |  | g <sub>p</sub> 0.294 [0.262, 0.332] | D <sub>xy</sub> 0.441 [0.426, 0.452] |
| Chains 4    |  | EV 0.261 [0.202, 0.327]             |                                      |
| Time 19.4s  |  | v 1.758 [1.092, 2.37]               |                                      |
| p 7         |  | vp 0.065 [0.052, 0.083]             |                                      |

|                                     | Mean β  | Median β | S.E.   | Lower   | Upper   | Pr(β>0) | Symmetry |
|-------------------------------------|---------|----------|--------|---------|---------|---------|----------|
| outcome_saq_qol_pre                 | 0.0513  | 0.0513   | 0.0144 | 0.0232  | 0.0799  | 0.9998  | 1.00     |
| outcome_saq_qol_pre'                | 0.0004  | 0.0004   | 0.0161 | -0.0313 | 0.0323  | 0.5092  | 1.00     |
| Treatment=PCI                       | 2.2313  | 2.2268   | 1.0462 | 0.1840  | 4.2975  | 0.9832  | 1.00     |
| angio_stenosis_ifr                  | 0.8640  | 0.8631   | 1.5625 | -2.2285 | 3.8856  | 0.7119  | 0.99     |
| angio_stenosis_ifr'                 | 0.5118  | 0.5060   | 1.5492 | -2.4749 | 3.5932  | 0.6316  | 1.00     |
| Treatment=PCI × angio_stenosis_ifr  | -0.4142 | -0.4054  | 2.2067 | -4.7478 | 3.9540  | 0.4258  | 1.00     |
| Treatment=PCI × angio_stenosis_ifr' | -4.5801 | -4.5647  | 2.3069 | -9.1380 | -0.0404 | 0.0238  | 0.99     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S112: Regression model and coefficients for SAQ quality of life for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_qol_post ~ rcs(outcome_saq_qol_pre,
3) + Treatment + rcs(angio_stenosis_ifr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|     |       |        |    |        |        |    |        |      |        |    |        |        |
|-----|-------|--------|----|--------|--------|----|--------|------|--------|----|--------|--------|
| 0   | 8.333 | 16.667 | 25 | 33.333 | 41.667 | 50 | 58.333 | 62.5 | 66.667 | 75 | 83.333 | 91.667 |
| 2   | 7     | 9      | 22 | 16     | 24     | 31 | 25     | 1    | 23     | 17 | 31     | 15     |
| 100 |       |        |    |        |        |    |        |      |        |    |        |        |
| 17  |       |        |    |        |        |    |        |      |        |    |        |        |

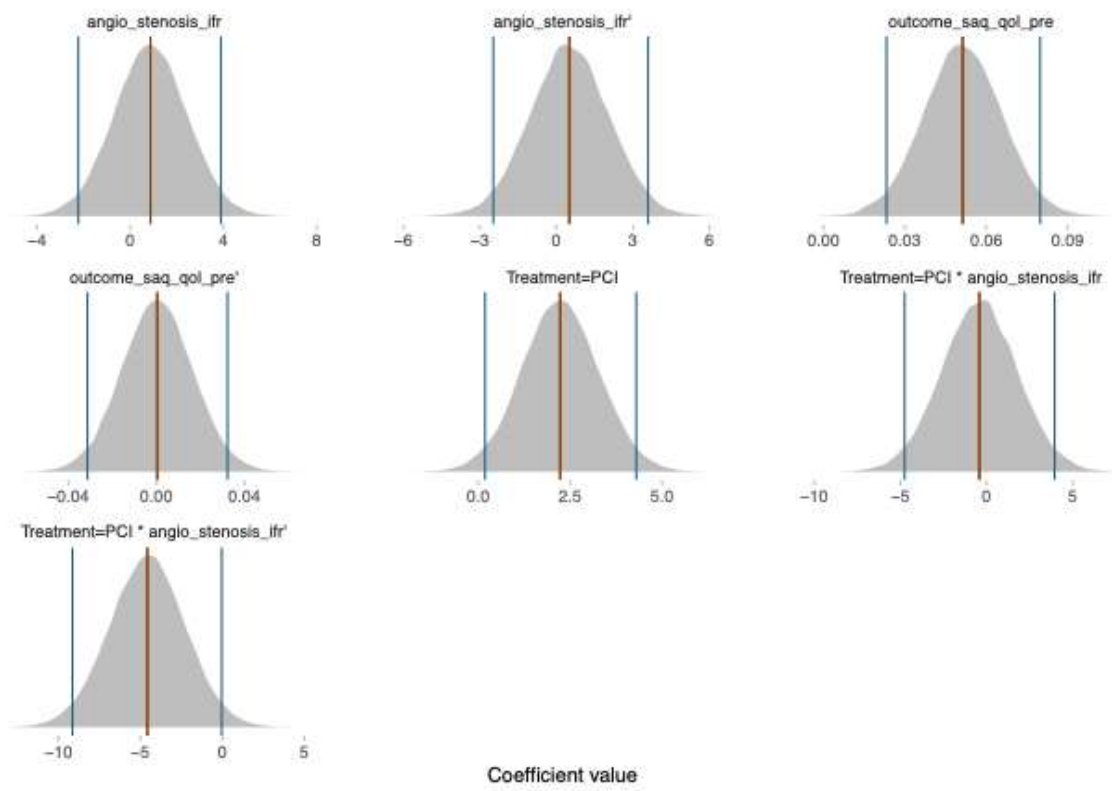
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 240     | B 0.193 [0.187, 0.201]                       | g 1.644 [1.381, 1.96]               | C 0.725 [0.714, 0.734]               |
| Draws 40000 |  | g <sub>p</sub> 0.307 [0.276, 0.342] | D <sub>xy</sub> 0.449 [0.429, 0.468] |
| Chains 4    |  | EV 0.286 [0.231, 0.35]              |                                      |
| Time 19s    |  | v 2.107 [1.446, 2.888]              |                                      |
| p 13        |  | vp 0.071 [0.055, 0.086]             |                                      |

|   | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|---------|----------|--------|----------|---------|---------|----------|
| outcome_saq_qol_pre   | 0.0612  | 0.0612   | 0.0154 | 0.0315   | 0.0916  | 1.0000  | 1.01     |
| outcome_saq_qol_pre'  | -0.0103 | -0.0104  | 0.0170 | -0.0445  | 0.0218  | 0.2703  | 1.00     |
| Treatment=PCI   | 5.9241  | 5.8938   | 3.1936 | -0.3669  | 12.0768 | 0.9694  | 1.01     |
| angio_stenosis_ifr  | 2.7530  | 2.8225   | 2.8278 | -2.9940  | 8.0352  | 0.8350  | 0.93     |
| angio_stenosis_ifr'   | -0.5142 | -0.5523  | 2.7202 | -5.8469  | 4.7646  | 0.4225  | 1.04     |
| rose_is_angina_random                                       | 1.5254  | 1.5483   | 1.6402 | -1.7485  | 4.6655  | 0.8245  | 0.96     |
| Treatment=PCI × angio_stenosis_ifr                          | -7.6243 | -7.6028  | 5.8834 | -19.0362 | 3.8832  | 0.0968  | 0.99     |
| Treatment=PCI × angio_stenosis_ifr'                         | -0.7753 | -0.7994  | 5.0784 | -10.8465 | 9.0748  | 0.4379  | 1.00     |
| Treatment=PCI × rose_is_angina_random                       | -4.4932 | -4.4693  | 3.4101 | -11.1478 | 2.1757  | 0.0925  | 0.98     |
| angio_stenosis_ifr × rose_is_angina_random                  | -3.2464 | -3.2890  | 3.3883 | -9.8205  | 3.4795  | 0.1689  | 1.03     |
| angio_stenosis_ifr × rose_is_angina_random'                 | 1.9987  | 2.0162   | 3.3632 | -4.6732  | 8.4853  | 0.7255  | 0.99     |
| Treatment=PCI × angio_stenosis_ifr × rose_is_angina_random  | 9.4309  | 9.3923   | 6.4548 | -3.3662  | 21.9036 | 0.9280  | 1.01     |
| Treatment=PCI × angio_stenosis_ifr' × rose_is_angina_random | -5.1522 | -5.1327  | 5.8167 | -16.7750 | 5.9898  | 0.1860  | 1.00     |

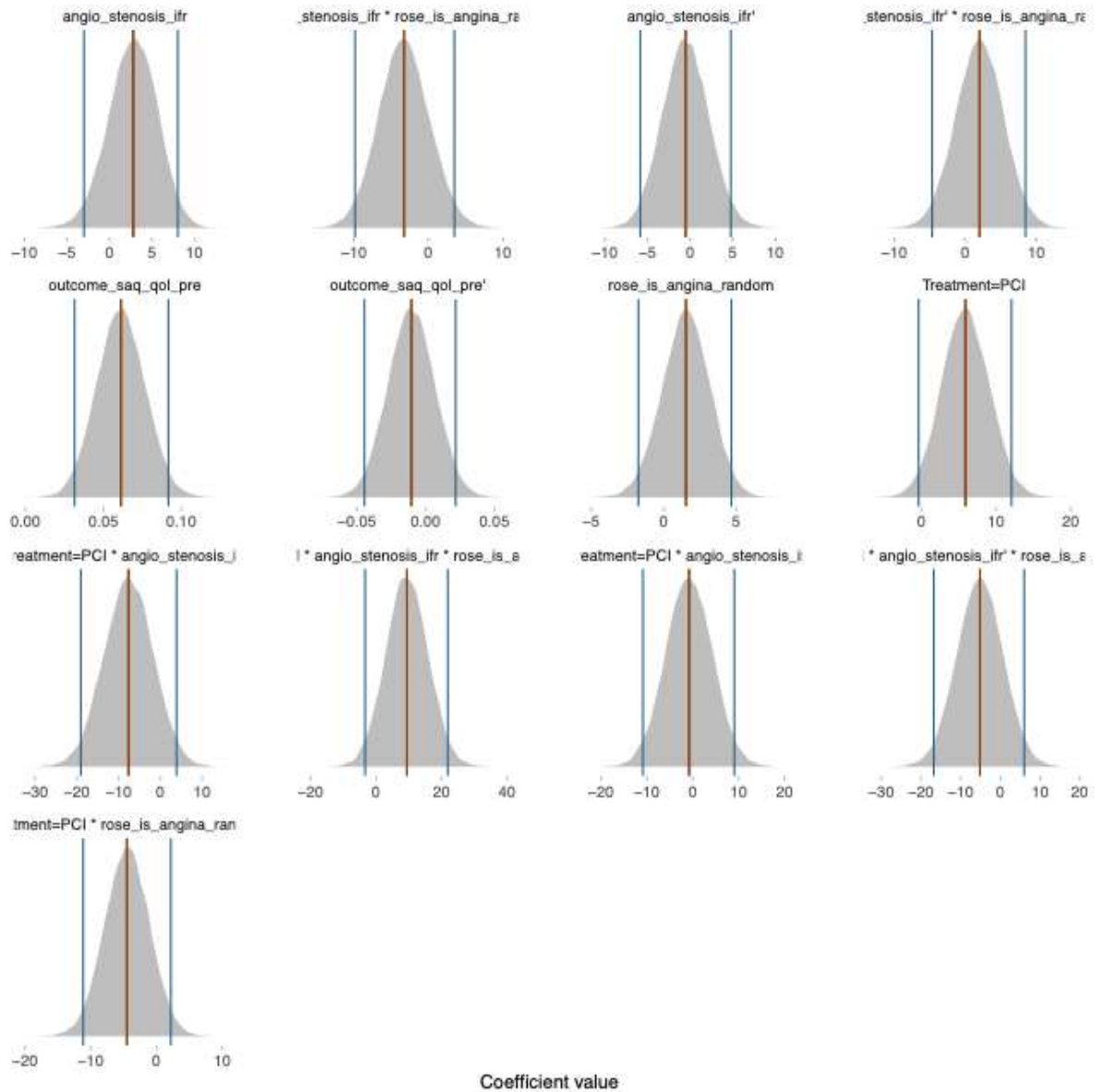
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

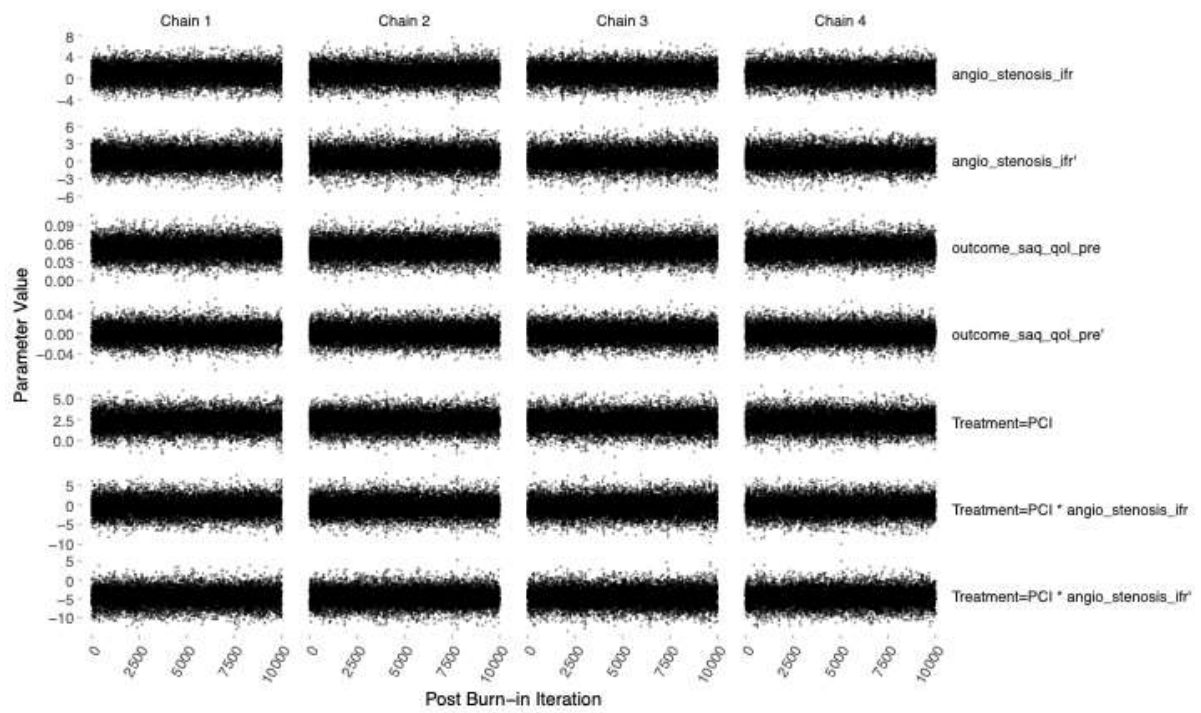
Supplementary figure S113: coefficient density plots: SAQ quality of life



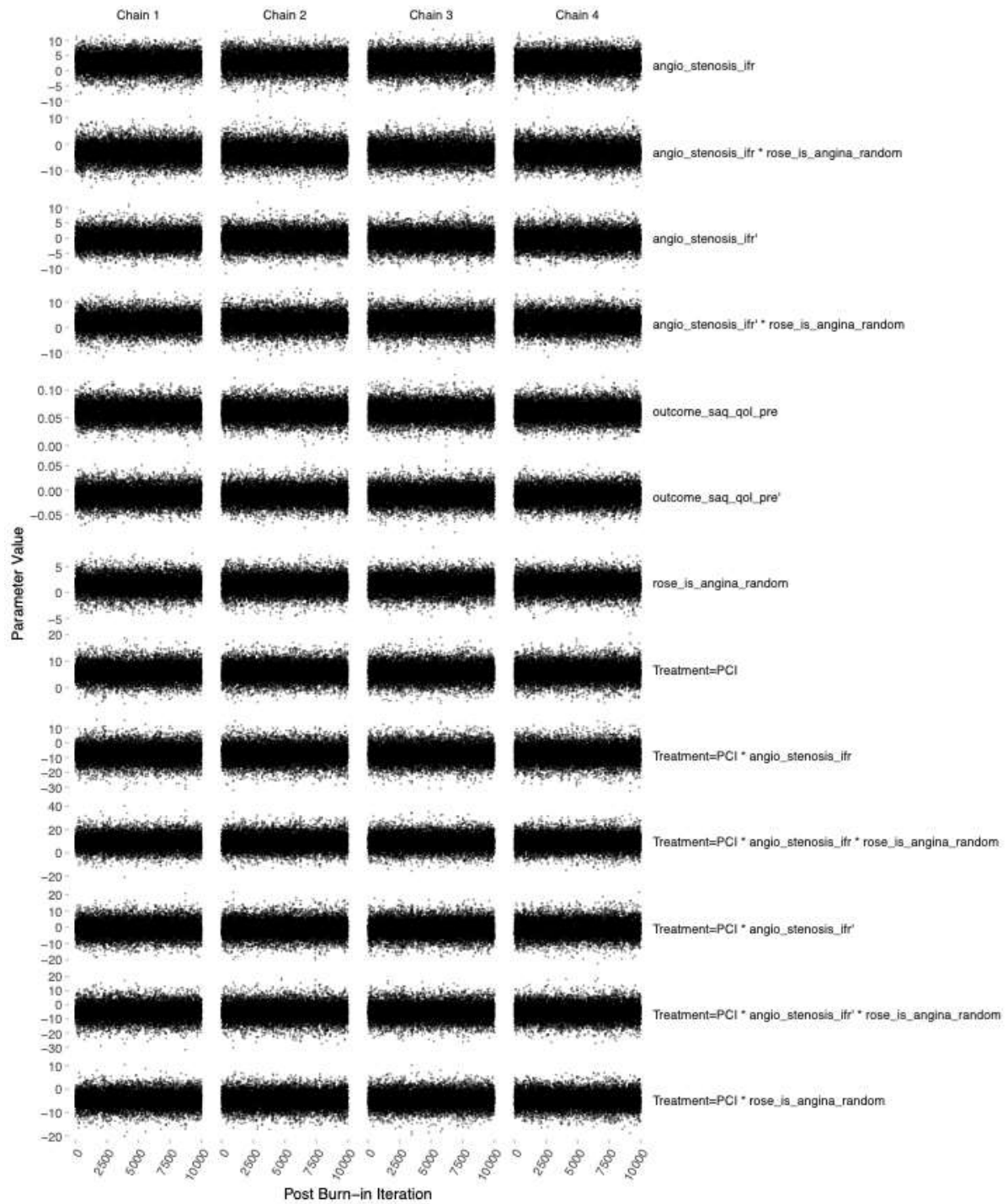
Supplementary figure S114: coefficient density plots: SAQ quality of life for Rose angina and Rose nonangina



Supplementary figure S115: chain plot of MCMC draws for SAQ quality of life



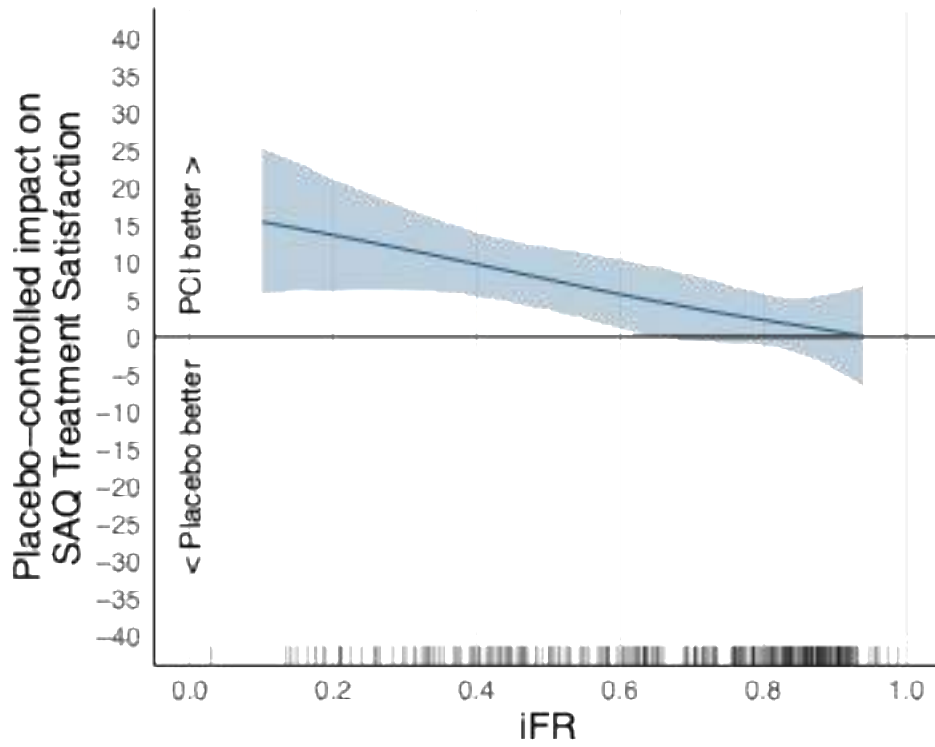
Supplementary figure 116: chain plot of MCMC draws for SAQ quality of life for Rose angina and Rose nonangina



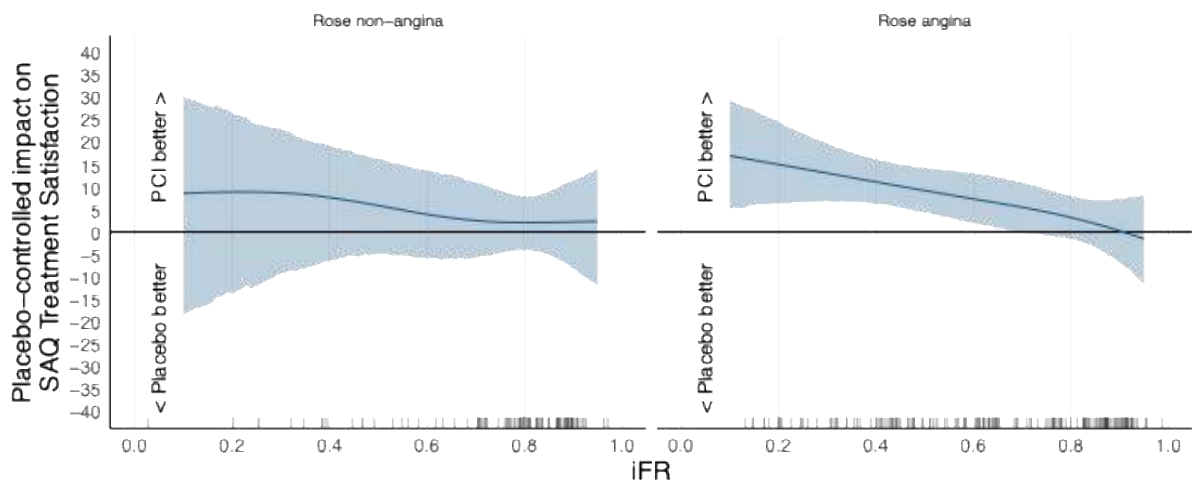


SAQ treatment satisfaction

Supplementary figure 117: result: SAQ treatment satisfaction



Supplementary figure 118: result: SAQ treatment satisfaction for Rose angina and Rose nonangina



Supplementary figure S119: Regression model and coefficients for SAQ treatment satisfaction

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_ts_post ~ rcs(outcome_saq_ts_pre,
3) + Treatment * rcs(angio_stenosis_ifr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

|      |    |      |       |    |       |      |        |       |    |       |      |       |
|------|----|------|-------|----|-------|------|--------|-------|----|-------|------|-------|
| 6.25 | 25 | 37.5 | 43.75 | 50 | 56.25 | 62.5 | 66.667 | 68.75 | 75 | 81.25 | 87.5 | 93.75 |
| 1    | 2  | 1    | 3     | 2  | 8     | 22   | 1      | 12    | 16 | 44    | 23   | 36    |
| 100  |    |      |       |    |       |      |        |       |    |       |      |       |
| 98   |    |      |       |    |       |      |        |       |    |       |      |       |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes         | Rank Discrim.<br>Indexes             |
|-------------|--|-----------------------------------|--------------------------------------|
| Obs 269     | B 0.195 [0.19, 0.201]                        | g 1.346 [1.071, 1.594]            | C 0.714 [0.703, 0.722]               |
| Draws 40000 |  | g <sub>p</sub> 0.264 [0.225, 0.3] | D <sub>xy</sub> 0.427 [0.407, 0.443] |
| Chains 4    |  | EV 0.23 [0.168, 0.285]            |                                      |
| Time 17.2s  |  | v 1.498 [0.955, 2.076]            |                                      |
| p 7         |  | vp 0.056 [0.041, 0.07]            |                                      |

|                                      | Mean β  | Median β | S.E.   | Lower   | Upper  | Pr(β>0) | Symmetry |
|--------------------------------------|---------|----------|--------|---------|--------|---------|----------|
| outcome_saq_ts_pre                   | 0.0482  | 0.0481   | 0.0131 | 0.0228  | 0.0739 | 0.9998  | 1.01     |
| outcome_saq_ts_pre'                  | 0.0178  | 0.0178   | 0.0141 | -0.0103 | 0.0451 | 0.8972  | 1.01     |
| Treatment=PCI                        | 3.1558  | 3.1508   | 1.0836 | 1.0352  | 5.2801 | 0.9982  | 1.02     |
| angio_stenosis_ifr                   | 1.5642  | 1.5567   | 1.5293 | -1.4278 | 4.5713 | 0.8477  | 1.01     |
| angio_stenosis_ifr'                  | -0.8928 | -0.8934  | 1.5872 | -4.0715 | 2.1511 | 0.2878  | 1.00     |
| Treatment=PCI × cardio_stenosis_ifr  | -3.7963 | -3.7944  | 2.2754 | -8.1984 | 0.7091 | 0.0472  | 0.99     |
| Treatment=PCI × cardio_stenosis_ifr' | 0.6819  | 0.6727   | 2.3471 | -3.9679 | 5.2318 | 0.6140  | 1.01     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S120: Regression model and coefficients for SAQ treatment satisfaction for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.175 for Intercepts

```
blrm(formula = outcome_saq_ts_post ~ rcs(outcome_saq_ts_pre,
3) + Treatment * rcs(angio_stenosis_ifr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|      |    |      |       |    |       |      |        |       |    |       |      |       |
|------|----|------|-------|----|-------|------|--------|-------|----|-------|------|-------|
| 6.25 | 25 | 37.5 | 43.75 | 50 | 56.25 | 62.5 | 66.667 | 68.75 | 75 | 81.25 | 87.5 | 93.75 |
| 1    | 2  | 1    | 3     | 2  | 8     | 18   | 1      | 11    | 15 | 39    | 21   | 38    |
| 100  |    |      |       |    |       |      |        |       |    |       |      |       |
| 88   |    |      |       |    |       |      |        |       |    |       |      |       |

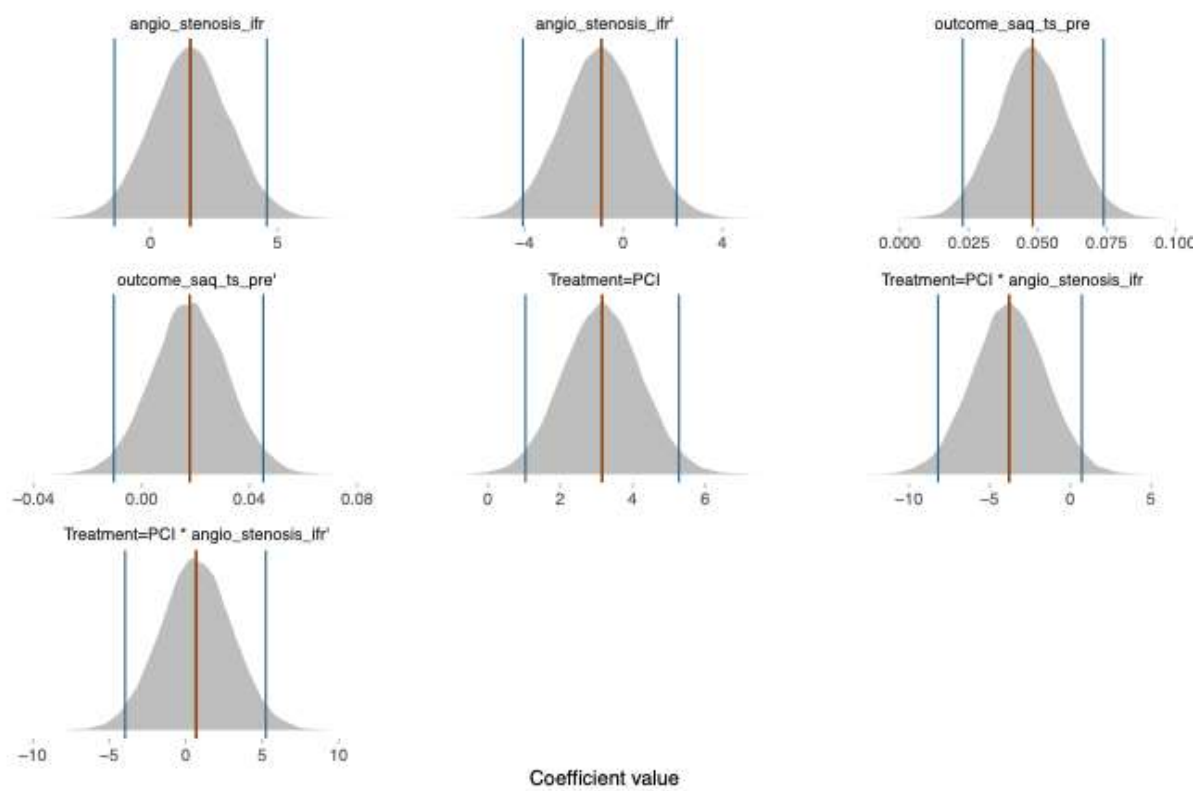
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 240     | B 0.194 [0.187, 0.201]                       | g 1.517 [1.204, 1.84]               | C 0.715 [0.702, 0.725]               |
| Draws 40000 |  | g <sub>p</sub> 0.283 [0.243, 0.322] | D <sub>xy</sub> 0.429 [0.405, 0.451] |
| Chains 4    |  | EV 0.256 [0.19, 0.327]              |                                      |
| Time 17.5s  |  | v 1.876 [1.203, 2.692]              |                                      |
| p 13        |  | vp 0.062 [0.046, 0.08]              |                                      |

|  | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|--|---------|----------|--------|----------|---------|---------|----------|
| outcome_saq_ts_pre   | 0.0538  | 0.0537   | 0.0138 | 0.0260   | 0.0801  | 0.9999  | 1.01     |
| outcome_saq_ts_pre'  | 0.0138  | 0.0138   | 0.0151 | -0.0154  | 0.0439  | 0.8188  | 1.01     |
| Treatment=PCI  | 2.7657  | 2.7442   | 3.2904 | -3.7988  | 9.1879  | 0.8040  | 1.02     |
| angio_stenosis_ifr   | -1.3061 | -1.2437  | 2.7710 | -6.9184  | 4.0166  | 0.3219  | 0.93     |
| angio_stenosis_ifr'  | 2.0333  | 1.9901   | 2.7870 | -3.3537  | 7.5575  | 0.7670  | 1.03     |
| rose_is_angina_random  | -1.2700 | -1.2375  | 1.5998 | -4.4580  | 1.8346  | 0.2147  | 0.95     |
| Treatment=PCI × cardio_stenosis_ifr                          | -3.9491 | -3.9545  | 6.0362 | -16.0821 | 7.6591  | 0.2531  | 0.99     |
| Treatment=PCI × cardio_stenosis_ifr'                         | 2.1296  | 2.1685   | 5.3682 | -8.1900  | 12.8571 | 0.6567  | 1.00     |
| Treatment=PCI × rose_is_angina_random                        | 0.6252  | 0.6314   | 3.5414 | -6.2299  | 7.7215  | 0.5732  | 0.98     |
| angio_stenosis_ifr × rose_is_angina_random                   | 3.4737  | 3.4345   | 3.3692 | -3.0120  | 10.2905 | 0.8512  | 1.04     |
| angio_stenosis_ifr' × rose_is_angina_random                  | -3.5228 | -3.4950  | 3.4646 | -10.3869 | 3.2037  | 0.1537  | 0.98     |
| Treatment=PCI × cardio_stenosis_ifr × rose_is_angina_random  | 0.6197  | 0.6351   | 6.6933 | -12.7876 | 13.4992 | 0.5384  | 1.00     |
| Treatment=PCI × cardio_stenosis_ifr' × rose_is_angina_random | -2.8119 | -2.8020  | 6.1879 | -14.7458 | 9.5521  | 0.3229  | 1.01     |

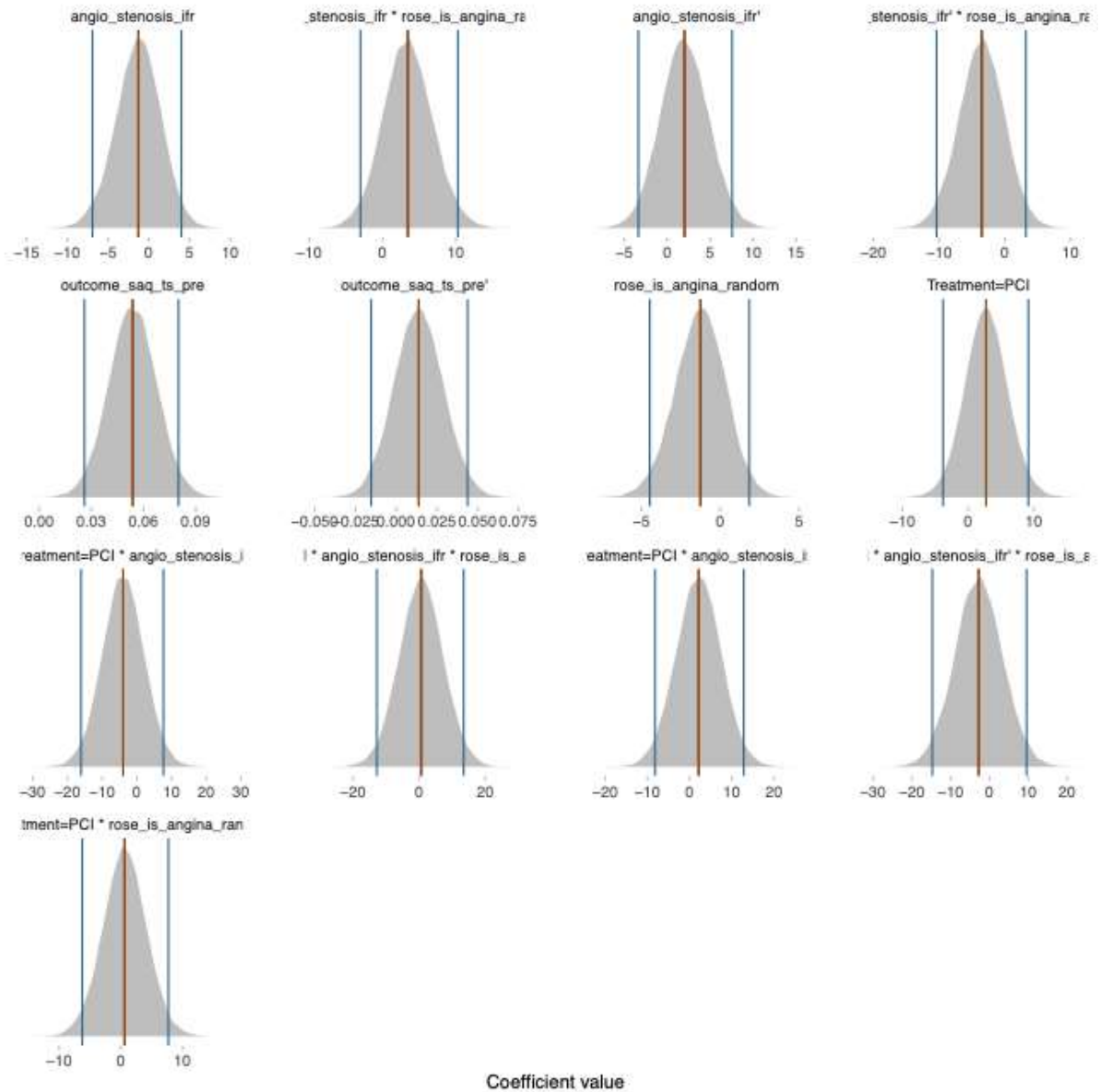
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

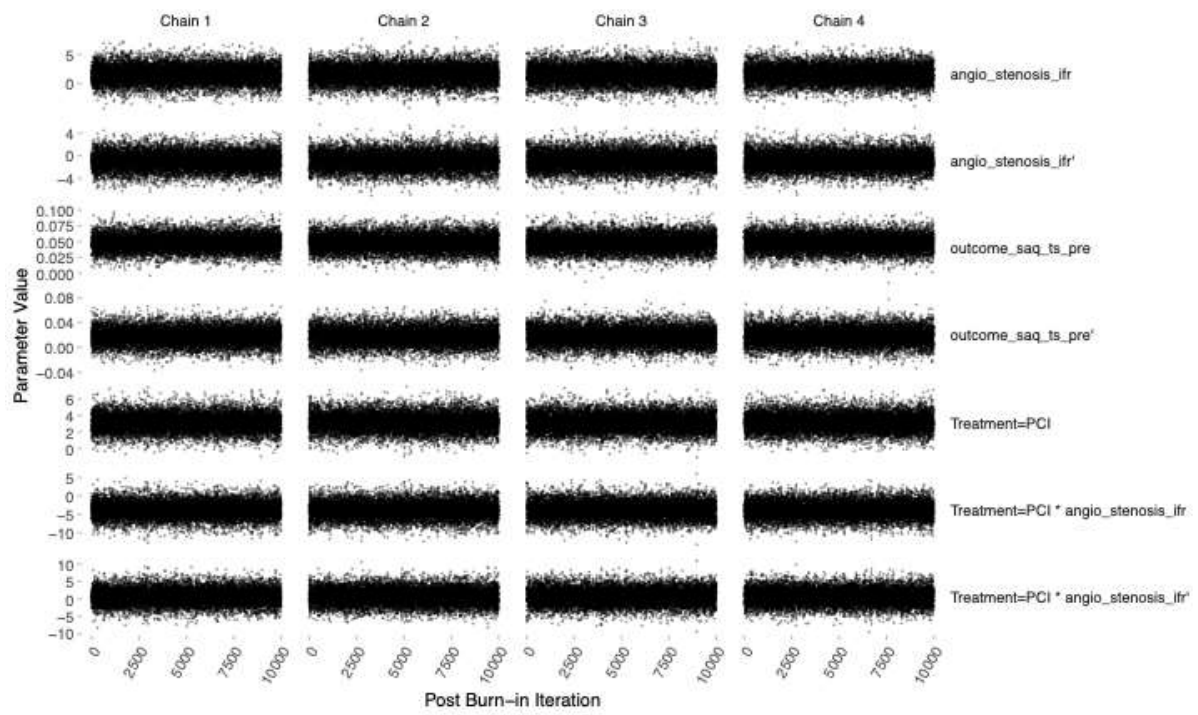
Supplementary figure S121: coefficient density plots: SAQ treatment satisfaction



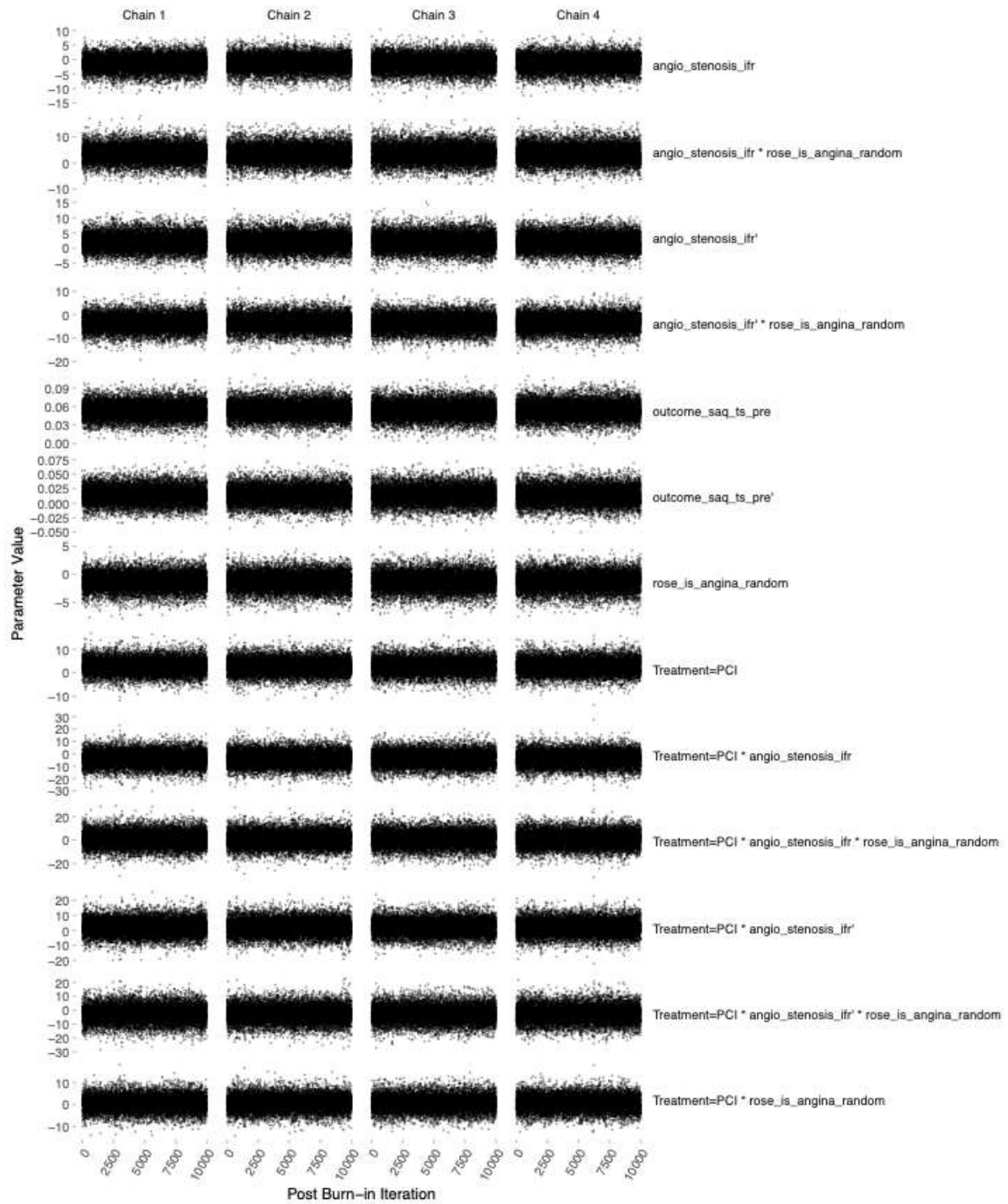
Supplementary figure S122: coefficient density plots: SAQ treatment satisfaction for Rose angina and Rose nonangina



Supplementary figure S123: chain plot of MCMC draws for SAQ treatment satisfaction

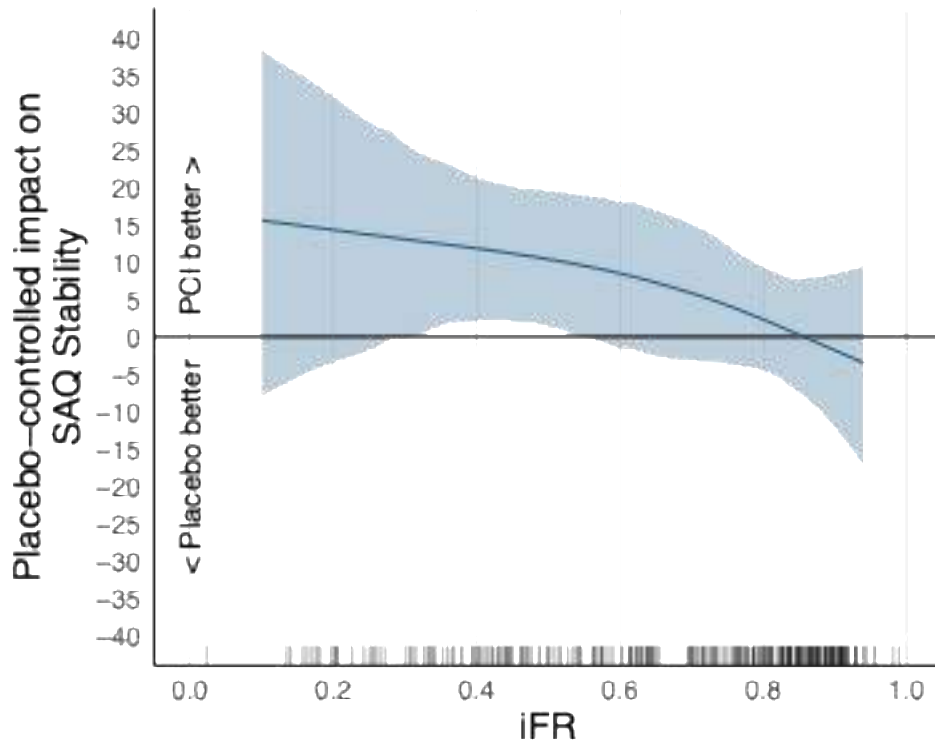


Supplementary figure S124: chain plot of MCMC draws for SAQ treatment satisfaction for Rose angina and Rose nonangina

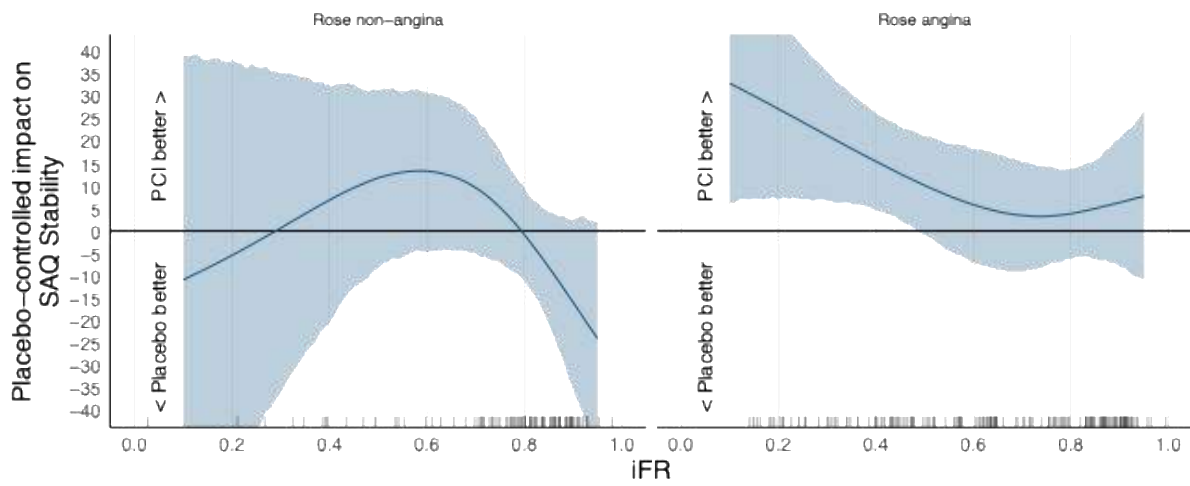


SAQ angina stability

Supplementary figure S125: result: SAQ angina stability



Supplementary figure S126: result: SAQ angina stability for Rose angina and Rose nonangina



Supplementary figure S127: Regression model and coefficients for SAQ angina stability

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
blrm(formula = outcome_saq_stab_post ~ rcs(outcome_saq_stab_pre,
3) + Treatment + rcs(angio_stenosis_ifr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res1.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res1.blrm.rds"))
```

Frequencies of Responses

```
# 25 50 75 100
11 29 135 44 50
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes               | Rank Discrim.<br>Indexes                   |
|-------------|--|---|--|
| Obs 269     | B 0.122 [0.117, 0.127]                       | <i>R</i> 0.511 [0.314, 0.7]             | <i>C</i> 0.561 [0.531, 0.582]              |
| Draws 40000 |  | <i>g<sub>p</sub></i> 0.067 [0.038, 0.1] | <i>D<sub>xy</sub></i> 0.123 [0.062, 0.164] |
| Chains 4    |  | <i>EV</i> 0.033 [0.007, 0.064]          |  |
| Time 16.5s  |  | <i>v</i> 0.224 [0.054, 0.382]           |  |
| <i>p</i> 7  |  | <i>vp</i> 0.004 [0.001, 0.009]          |  |

|                                     | Mean $\beta$ | Median $\beta$ | S.E.   | Lower   | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|-------------------------------------|--------------|----------------|--------|---------|---------|-------------------|----------|
| yz25                                | 1.6911       | 1.6856         | 0.9053 | -0.0547 | 3.4924  | 0.9706            | 1.03     |
| yz50                                | 0.2235       | 0.2206         | 0.8830 | -1.5125 | 1.9712  | 0.6010            | 1.01     |
| yz75                                | -2.2307      | -2.2319        | 0.9004 | -4.0137 | -0.4688 | 0.0068            | 0.99     |
| yz100                               | -3.1027      | -3.1059        | 0.9052 | -4.8997 | -1.3432 | 0.0003            | 0.99     |
| outcome_saq_stab_pre                | 0.0035       | 0.0035         | 0.0094 | -0.0151 | 0.0218  | 0.6433            | 1.01     |
| outcome_saq_stab_pre'               | 0.0008       | 0.0008         | 0.0107 | -0.0201 | 0.0216  | 0.5302            | 1.00     |
| Treatment=PCI                       | 1.3095       | 1.3106         | 1.1377 | -0.9099 | 3.5376  | 0.8755            | 1.00     |
| angio_stenosis_ifr                  | 2.2761       | 2.2767         | 1.7009 | -1.0169 | 5.6344  | 0.9102            | 1.00     |
| angio_stenosis_ifr'                 | -1.4294      | -1.4203        | 1.7263 | -4.8342 | 1.9463  | 0.2057            | 1.00     |
| Treatment=PCI x angio_stenosis_ifr  | -1.0318      | -1.0248        | 2.3869 | -5.6971 | 3.6042  | 0.3316            | 1.00     |
| Treatment=PCI x angio_stenosis_ifr' | -0.9752      | -0.9837        | 2.4748 | -5.8644 | 3.7995  | 0.3473            | 1.00     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842087127883599)
```

Supplementary figure S128: Regression model and coefficients for SAQ angina stability for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.392 for Intercepts

```
blrm(formula = outcome_saq_stab_post ~ rcs(outcome_saq_stab_pre,
3) + Treatment + rcs(angio_stenosis_ifr, 3) + rose_is_angina_random,
data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

```
# 25 50 75 100
18 27 118 38 47
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes                 | Rank Discrim.<br>Indexes                   |
|-------------|--|---|--|
| Obs 240     | B 0.122 [0.115, 0.13]                        | <i>R</i> 0.77 [0.529, 1.002]              | <i>C</i> 0.589 [0.564, 0.614]              |
| Draws 40000 |  | <i>g<sub>p</sub></i> 0.104 [0.066, 0.137] | <i>D<sub>xy</sub></i> 0.179 [0.128, 0.229] |
| Chains 4    |  | <i>EV</i> 0.093 [0.03, 0.16]              |  |
| Time 16.9s  |  | <i>v</i> 0.544 [0.284, 0.914]             |  |
| <i>p</i> 13 |  | <i>vp</i> 0.013 [0.004, 0.022]            |  |

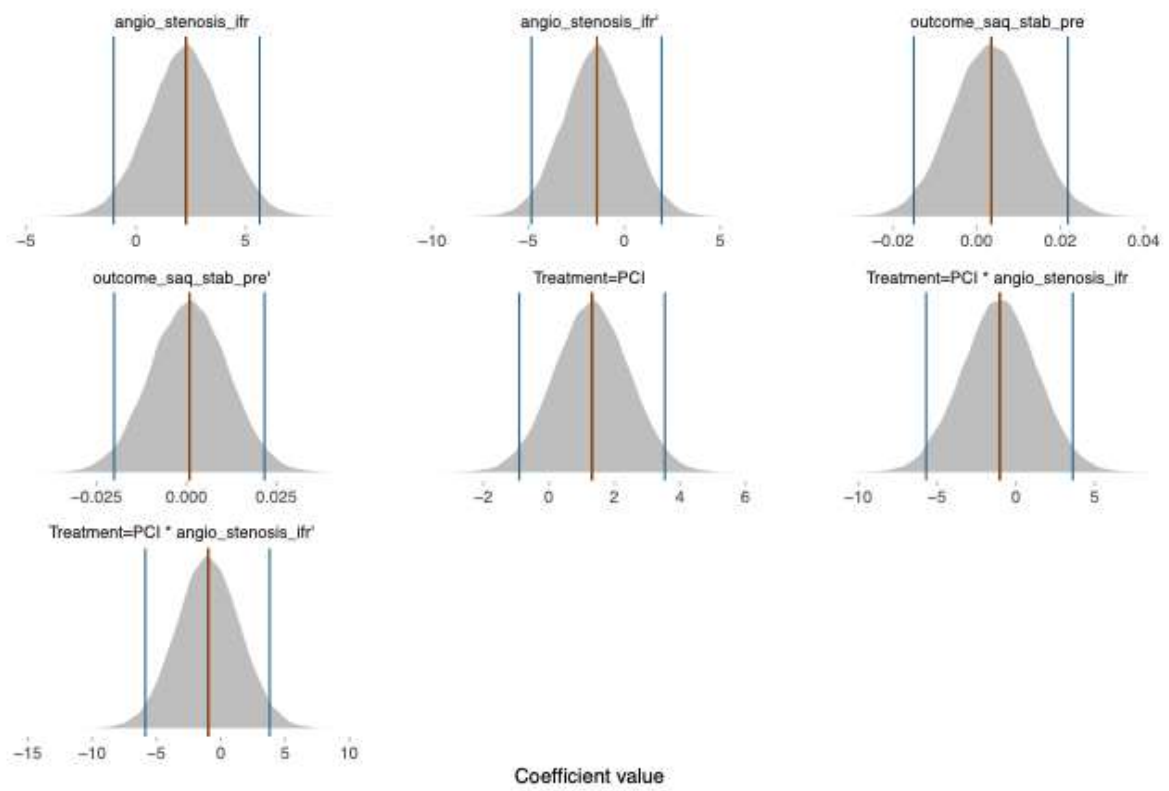
|   | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|--------|----------|---------|-------------------|----------|
| yz25  | 4.7638       | 4.7394         | 1.4749 | 1.9189   | 7.7105  | 0.9997            | 1.04     |
| yz50  | 3.2027       | 3.1748         | 1.4530 | 0.3756   | 6.0705  | 0.9882            | 1.04     |
| yz75  | 0.6888       | 0.6579         | 1.4388 | -2.0806  | 3.5623  | 0.6805            | 1.04     |
| yz100   | -0.1610      | -0.1953        | 1.4368 | -3.0007  | 2.6300  | 0.4468            | 1.05     |
| outcome_saq_stab_pre  | 0.0052       | 0.0052         | 0.0098 | -0.0143  | 0.0244  | 0.7030            | 1.01     |
| outcome_saq_stab_pre'                                       | -0.0017      | -0.0017        | 0.0113 | -0.0237  | 0.0203  | 0.4402            | 1.01     |
| Treatment=PCI   | -1.3313      | -1.3865        | 3.2884 | -7.9324  | 5.0575  | 0.3382            | 1.03     |
| angio_stenosis_ifr  | -3.1097      | -3.0514        | 2.8584 | -8.8782  | 2.3873  | 0.1348            | 0.95     |
| angio_stenosis_ifr'   | 2.4139       | 2.3906         | 2.9159 | -3.3633  | 8.0658  | 0.7968            | 1.01     |
| rose_is_angina_random                                       | -4.8635      | -4.8515        | 1.7214 | -8.2595  | -1.5304 | 0.0026            | 0.97     |
| Treatment=PCI x angio_stenosis_ifr                          | 4.6869       | 4.7470         | 6.1141 | -7.5024  | 16.5644 | 0.7810            | 0.98     |
| Treatment=PCI x angio_stenosis_ifr'                         | -7.8395      | -7.8618        | 5.5498 | -18.8302 | 2.8965  | 0.0796            | 1.02     |
| Treatment=PCI x rose_is_angina_random                       | 4.4798       | 4.5046         | 3.5659 | -2.4684  | 11.5240 | 0.8964            | 0.97     |
| angio_stenosis_ifr x rose_is_angina_random                  | 9.2625       | 9.2354         | 3.6147 | 2.2995   | 16.5613 | 0.9948            | 1.03     |
| angio_stenosis_ifr' x rose_is_angina_random                 | -7.4227      | -7.4176        | 3.7490 | -14.8993 | -0.1518 | 0.0238            | 0.98     |
| Treatment=PCI x angio_stenosis_ifr x rose_is_angina_random  | -9.5306      | -9.5738        | 6.8192 | -22.8820 | 3.7671  | 0.0819            | 1.03     |
| Treatment=PCI x angio_stenosis_ifr' x rose_is_angina_random | 11.0501      | 11.0543        | 6.4283 | -1.5752  | 23.6440 | 0.9564            | 0.99     |

Contrasts Given Priors

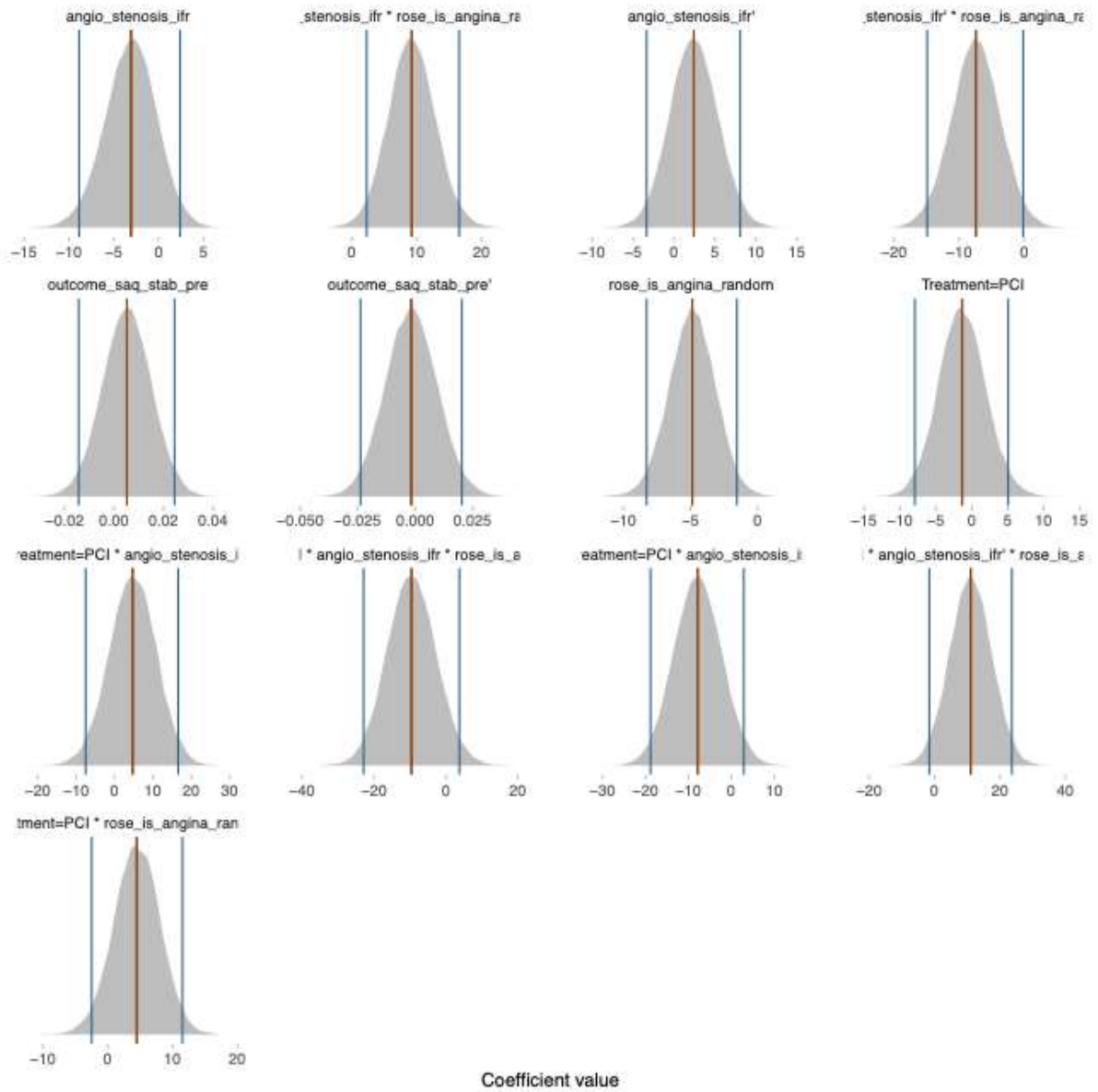
```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842087127883599)
```



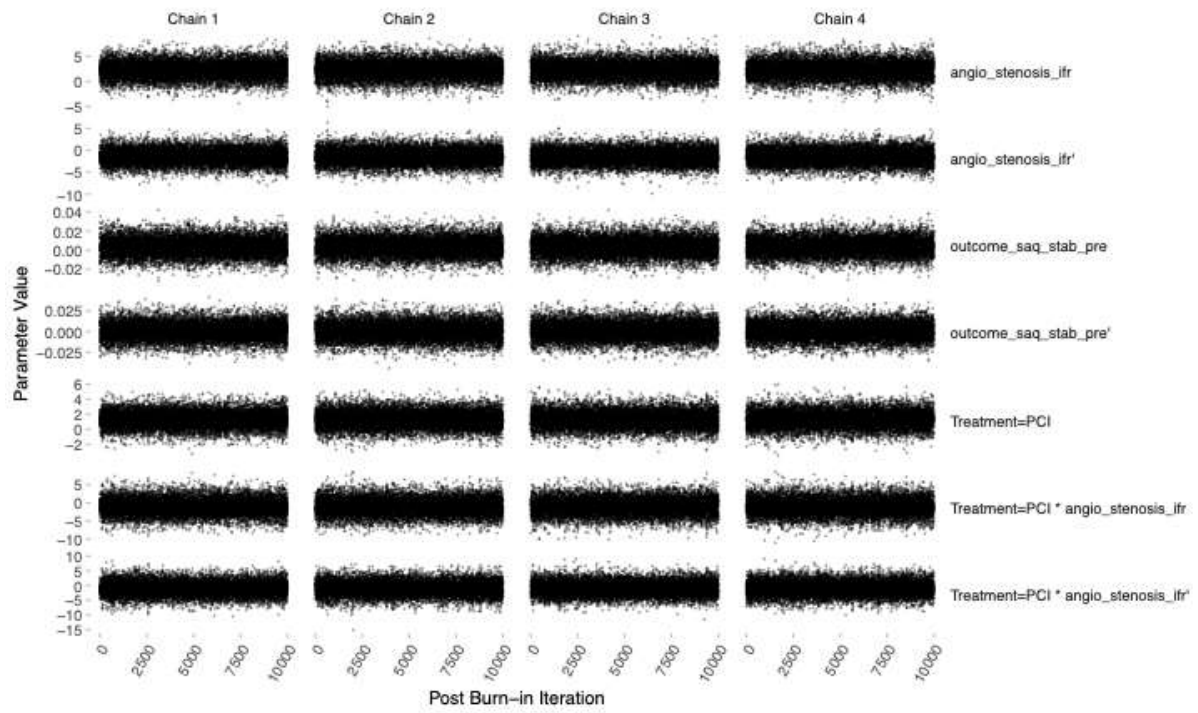
Supplementary figure S129: coefficient density plots: SAQ angina stability



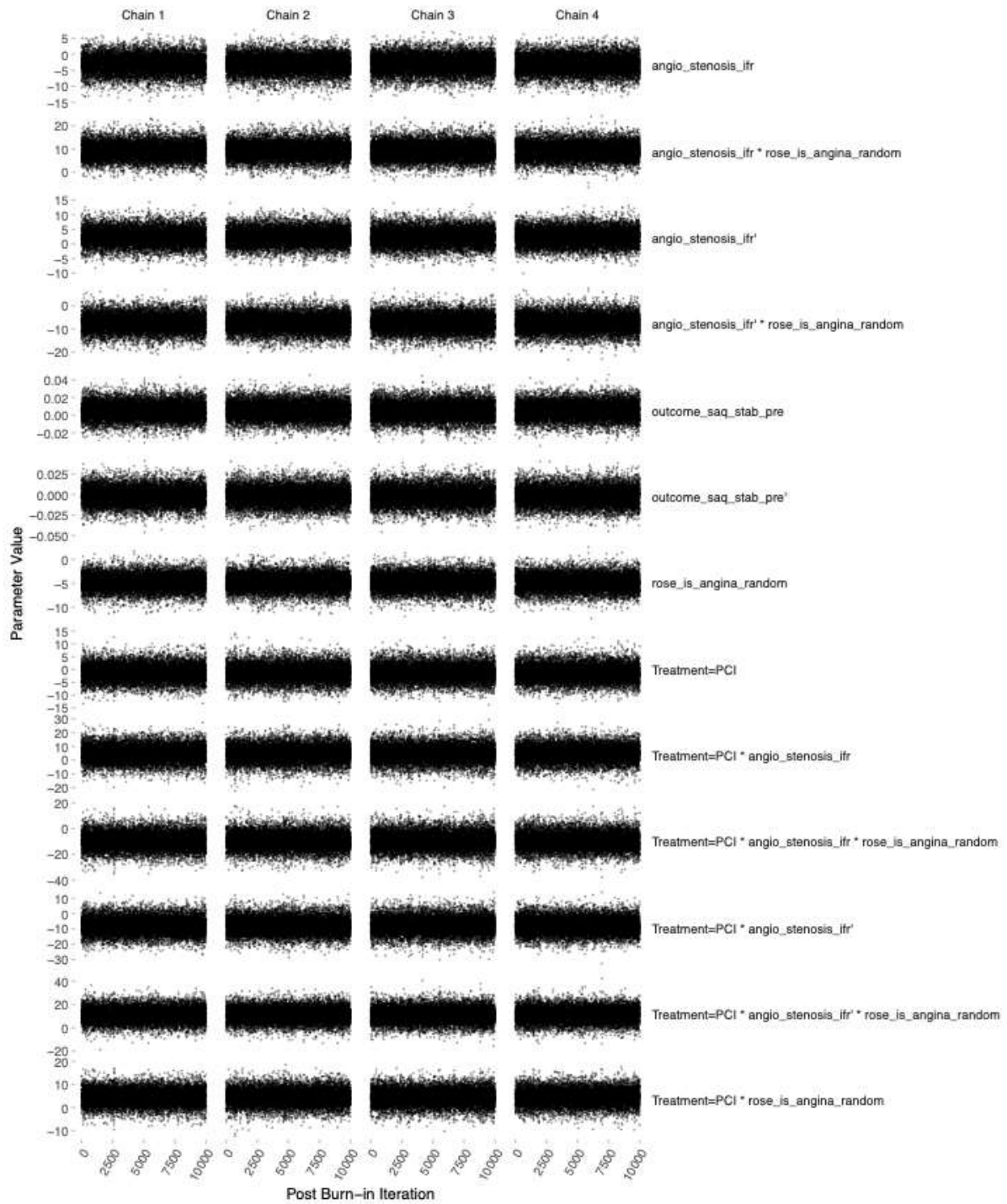
Supplementary figure S130: coefficient density plots: SAQ angina stability for Rose angina and Rose nonangina



Supplementary figure S131: chain plot of MCMC draws for SAQ angina stability

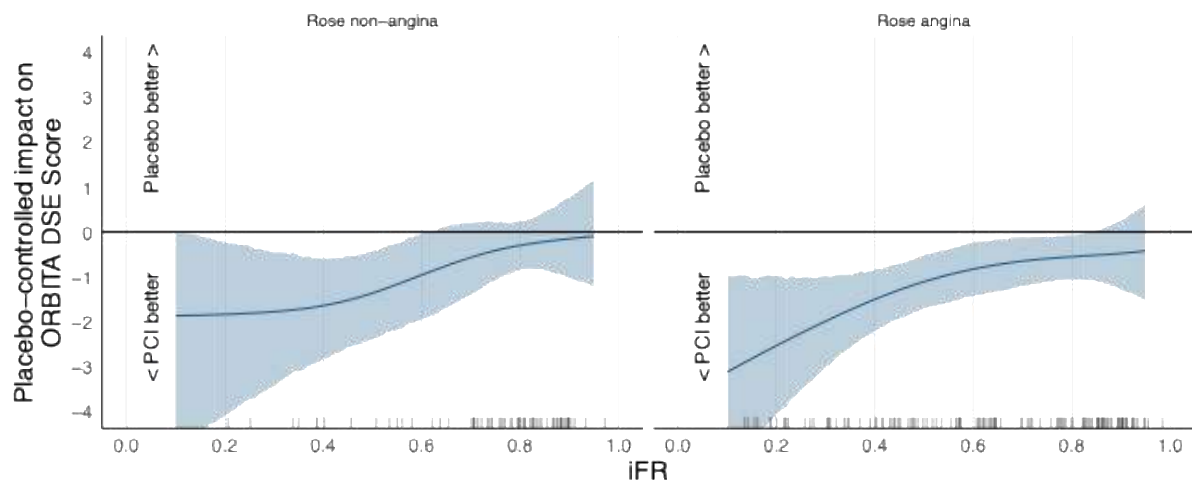


Supplementary figure S132: chain plot of MCMC draws for SAQ angina stability for Rose angina and Rose nonangina



## Dobutamine stress echocardiography (DSE) score

Supplementary figure S133: result: DSE score for Rose angina and Rose nonangina



Supplementary figure S134: Regression model and coefficients for DSE score

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.079 for Intercepts

```
blrm(formula = orbita_dse_score_fu ~ rcs(orbita_dse_score_rand,
3) + Treatment * rcs(angio_stenosis_ifr, 3), data = analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_resl.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_resl.blrm.rds"))
```

### Frequencies of Responses

|       |       |       |       |       |       |       |        |       |       |       |       |       |   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|---|
|       | 0     | 0.167 | 0.333 | 0.5   | 0.667 | 0.833 | 1      | 1.167 | 1.333 | 1.5   | 1.667 | 1.833 | 2 |
| 53    | 11    | 17    | 18    | 13    | 11    | 11    | 7      | 10    | 7     | 8     | 1     | 4     | 4 |
| 2.167 | 2.333 | 2.5   | 2.667 | 2.833 | 3     | 3.167 | 3.333  | 3.5   | 3.667 | 4.333 | 4.667 | 5     | 5 |
| 5     | 3     | 2     | 2     | 5     | 2     | 2     | 3      | 1     | 1     | 1     | 3     | 3     | 3 |
| 5.167 | 5.667 | 5.833 | 6.167 | 6.333 | 7.667 | 9.833 | 11.333 |       |       |       |       |       |   |
| 1     | 1     | 2     | 1     | 1     | 1     | 1     | 1      |       |       |       |       |       |   |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes         | Rank Discrim.<br>Indexes            |
|-------------|--|-----------------------------------|-------------------------------------|
| Obs 213     | B 0.222 [0.217, 0.228]                       | g 1.205 [0.892, 1.498]            | C 0.658 [0.645, 0.668]              |
| Draws 40000 |  | g <sub>p</sub> 0.229 [0.18, 0.27] | D <sub>xy</sub> 0.316 [0.29, 0.335] |
| Chains 4    |  | EV 0.168 [0.111, 0.23]            |                                     |
| Time 55.6s  |  | v 1.371 [0.746, 2.071]            |                                     |
| p 7         |  | vp 0.042 [0.028, 0.057]           |                                     |

|  | Mean $\beta$ | Median $\beta$ | S.E.   | Lower   | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|--|--------------|----------------|--------|---------|---------|-------------------|----------|
| orbita_dse_score_rand                      | 0.4719       | 0.4714         | 0.2240 | 0.0358  | 0.9165  | 0.9820            | 1.00     |
| orbita_dse_score_rand'                     | -0.2522      | -0.2549        | 0.4930 | -1.2229 | 0.7067  | 0.3044            | 1.01     |
| Treatment=PCI                              | -4.4705      | -4.4742        | 1.2001 | -6.8257 | -2.1357 | 0.0001            | 1.00     |
| angio_stenosis_ifr                         | -4.5775      | -4.5694        | 1.9482 | -8.3572 | -0.7201 | 0.0091            | 0.99     |
| angio_stenosis_ifr'                        | 2.0570       | 2.0473         | 1.9301 | -1.7557 | 5.8086  | 0.8587            | 1.00     |
| Treatment=PCI $\times$ angio_stenosis_ifr  | 5.4229       | 5.4216         | 2.5031 | 0.5135  | 10.3096 | 0.9848            | 1.00     |
| Treatment=PCI $\times$ angio_stenosis_ifr' | -1.3222      | -1.3273        | 2.6304 | -6.4609 | 3.8582  | 0.3054            | 1.00     |

### Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S135: Regression model and coefficients for DSE score for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.079 for Intercepts

```
blrm(formula = orbita_dse_score_fu ~ rcs(orbita_dse_score_rand,
3) + Treatment * rcs(angio_stenosis_ifr, 3) * rose_is_angina_random,
data = rose_analysis_0, pcontrast = pcon, iter = 20000, chains = 4,
refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

Frequencies of Responses

|       |       |       |       |       |       |       |        |       |       |       |       |   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|---|
| 0     | 0.167 | 0.333 | 0.5   | 0.667 | 0.833 | 1     | 1.167  | 1.333 | 1.5   | 1.667 | 1.833 | 2 |
| 44    | 7     | 16    | 16    | 12    | 10    | 10    | 6      | 9     | 6     | 6     | 1     | 4 |
| 2,167 | 2,333 | 2,5   | 2,667 | 2,833 | 3     | 3,167 | 3,333  | 3,5   | 3,667 | 4,333 | 4,667 | 5 |
| 5     | 3     | 2     | 2     | 5     | 2     | 2     | 2      | 1     | 1     | 1     | 3     | 3 |
| 5,167 | 5,667 | 5,833 | 6,167 | 6,333 | 7,067 | 9,033 | 11,333 |       |       |       |       |   |
| 1     | 1     | 2     | 1     | 1     | 1     | 1     | 1      |       |       |       |       |   |

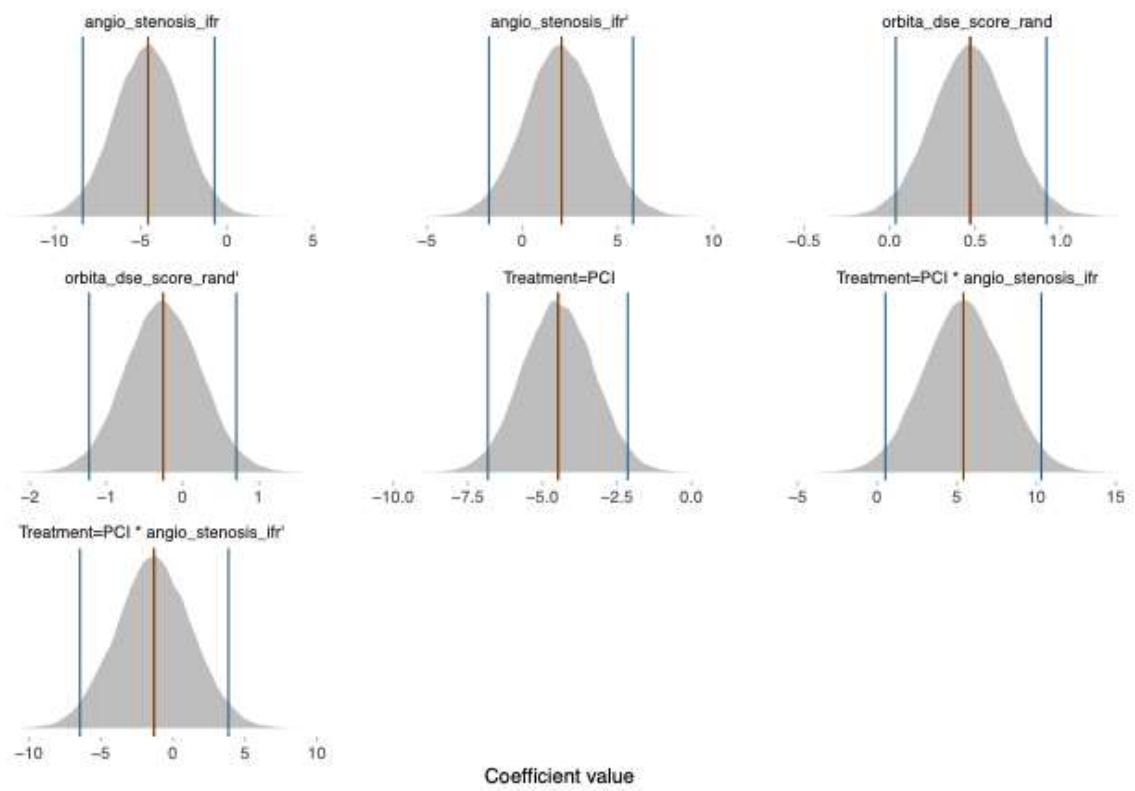
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes      | Rank Discrim.<br>Indexes     |
|-------------|--|--------------------------------|------------------------------|
| Obs 188     | B 0.216 [0.207, 0.227]                       | $\beta$ 1.39 [1.107, 1.721]    | C 0.671 [0.653, 0.685]       |
| Draws 40000 |  | $\beta_p$ 0.256 [0.209, 0.297] | $D_{xy}$ 0.341 [0.307, 0.37] |
| Chains 4    |  | EV 0.205 [0.144, 0.275]        |                              |
| Time 29.2s  |  | $v$ 1.698 [0.981, 2.431]       |                              |
| p 13        |  | vp 0.05 [0.034, 0.066]         |                              |

|   | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|--------|----------|---------|-------------------|----------|
| orbita_dse_score_rand                                       | 0.5496       | 0.5486         | 0.2402 | 0.0811   | 1.0214  | 0.9896            | 1.02     |
| orbita_dse_score_rand'                                      | -0.4886      | -0.4909        | 0.5845 | -1.6602  | 0.6348  | 0.2022            | 1.00     |
| Treatment=PCI   | -7.0738      | -6.9779        | 3.4348 | -13.9101 | -0.4333 | 0.0153            | 0.91     |
| angio_stenosis_ifr  | -0.0374      | -0.0113        | 3.5710 | -7.0019  | 7.0536  | 0.4986            | 0.98     |
| angio_stenosis_ifr'   | -2.5155      | -2.5283        | 3.4080 | -9.2437  | 4.0922  | 0.2299            | 1.01     |
| rose_is_angina_random                                       | 2.3717       | 2.3871         | 2.1083 | -1.9272  | 6.3742  | 0.8708            | 0.98     |
| Treatment=PCI * angio_stenosis_ifr                          | 9.8582       | 9.7177         | 6.5063 | -2.7991  | 22.7315 | 0.9382            | 1.07     |
| Treatment=PCI * angio_stenosis_ifr'                         | -3.8494      | -3.8210        | 5.8220 | -15.2742 | 7.5521  | 0.2542            | 0.99     |
| Treatment=PCI * rose_is_angina_random                       | 3.0189       | 2.9478         | 3.6961 | -4.0404  | 10.4565 | 0.7909            | 1.06     |
| angio_stenosis_ifr * rose_is_angina_random                  | -5.7698      | -5.7817        | 4.3232 | -14.2266 | 2.6565  | 0.0916            | 1.00     |
| angio_stenosis_ifr' * rose_is_angina_random                 | 6.5086       | 6.5120         | 4.1765 | -1.4393  | 14.8556 | 0.9396            | 1.00     |
| Treatment=PCI * angio_stenosis_ifr * rose_is_angina_random  | -5.6697      | -5.5917        | 7.2049 | -20.1248 | 8.1210  | 0.2170            | 0.96     |
| Treatment=PCI * angio_stenosis_ifr' * rose_is_angina_random | 3.0106       | 3.0153         | 6.6857 | -9.9980  | 16.2410 | 0.6736            | 1.01     |

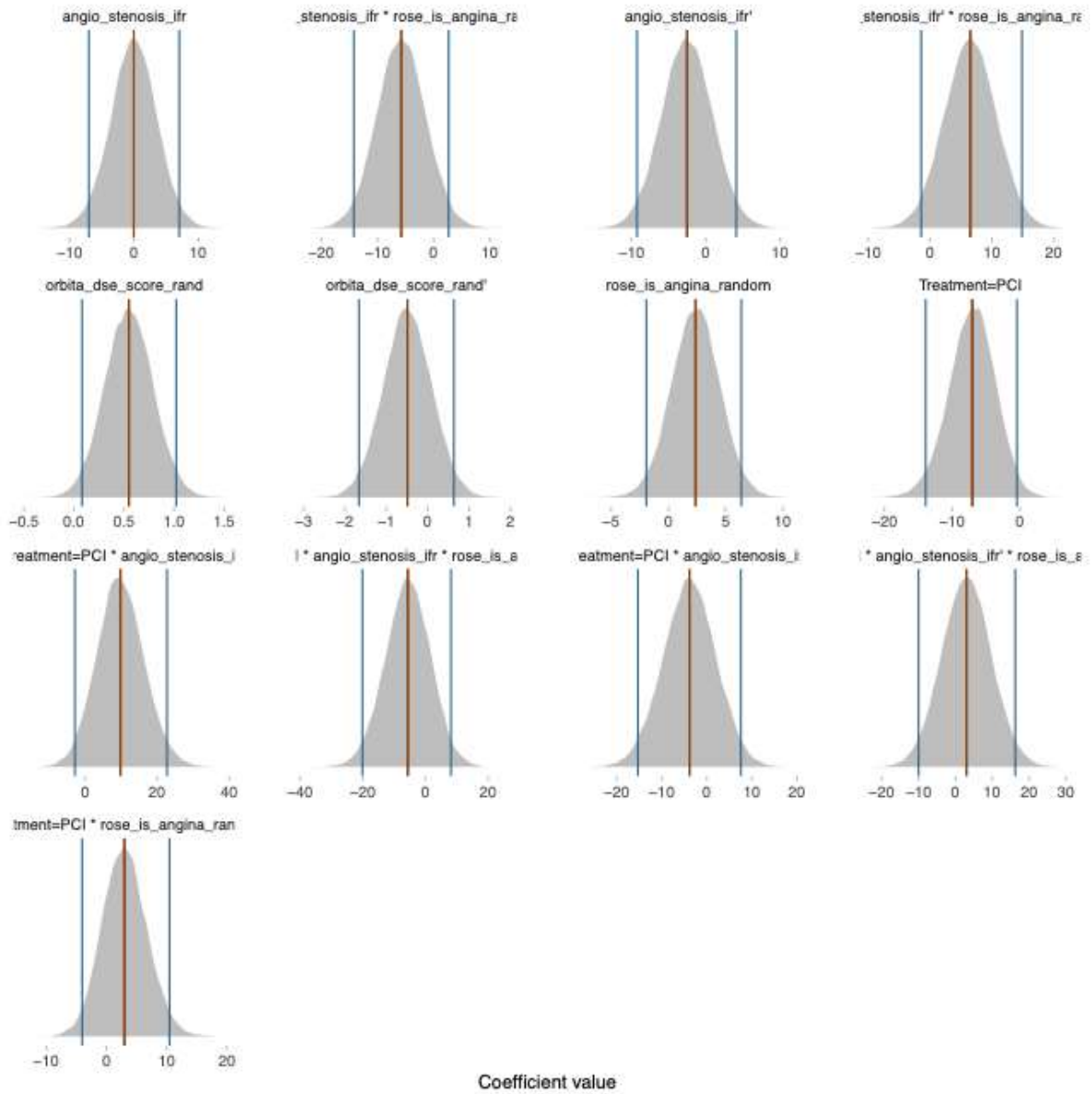
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842887127883599)
```

Supplementary figure S136: coefficient density plots: DSE score

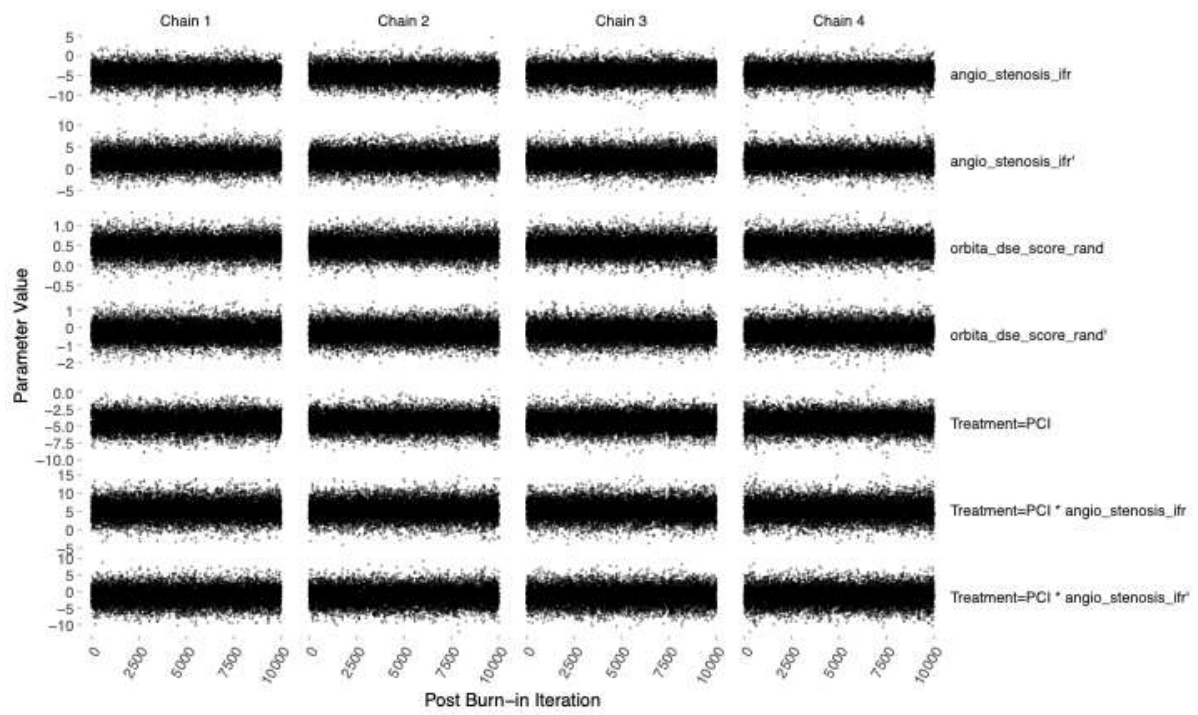


Supplementary figure S137: coefficient density plots: DSE score for Rose angina and Rose nonangina

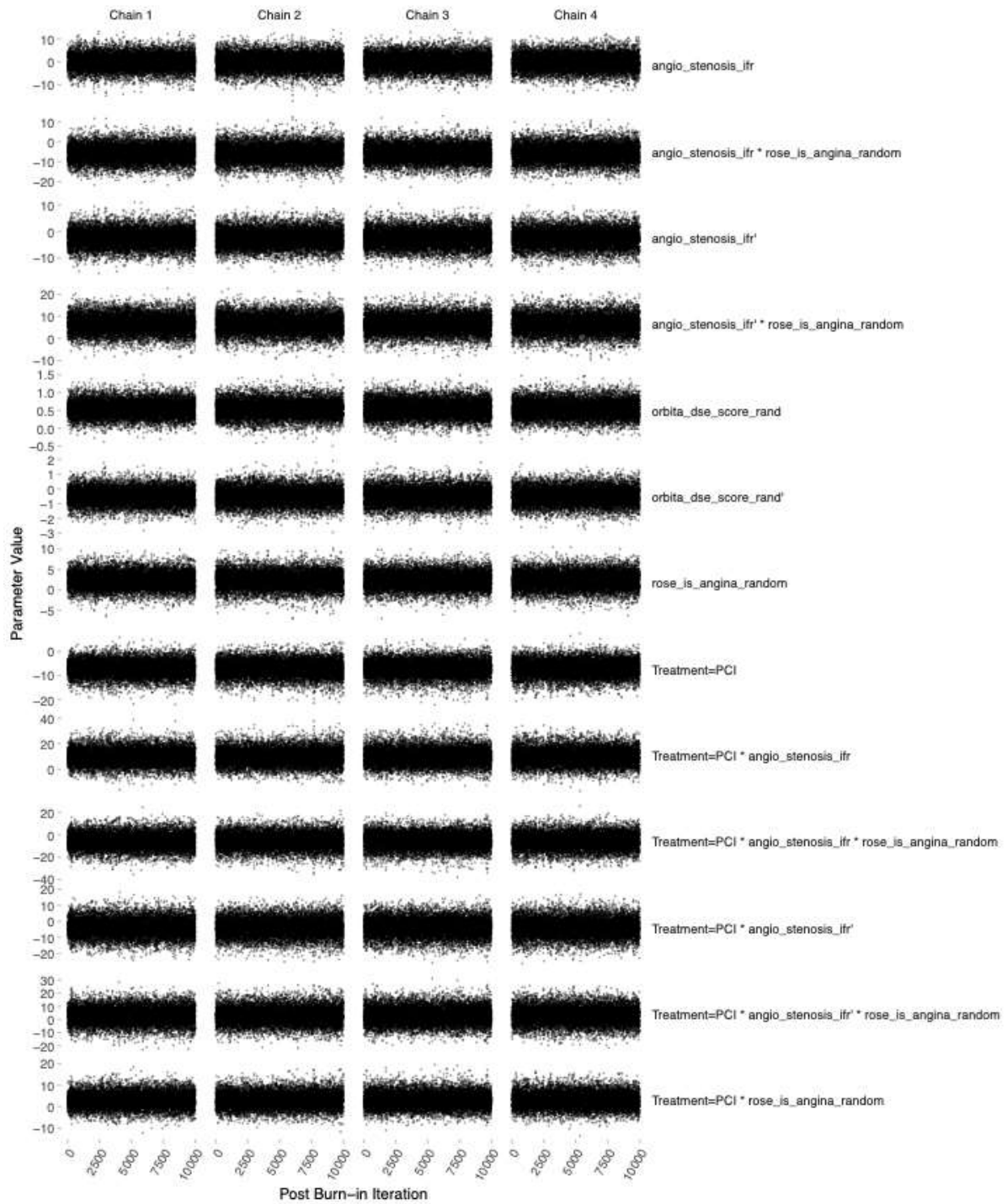




Supplementary figure S138: chain plot of MCMC draws for DSE score

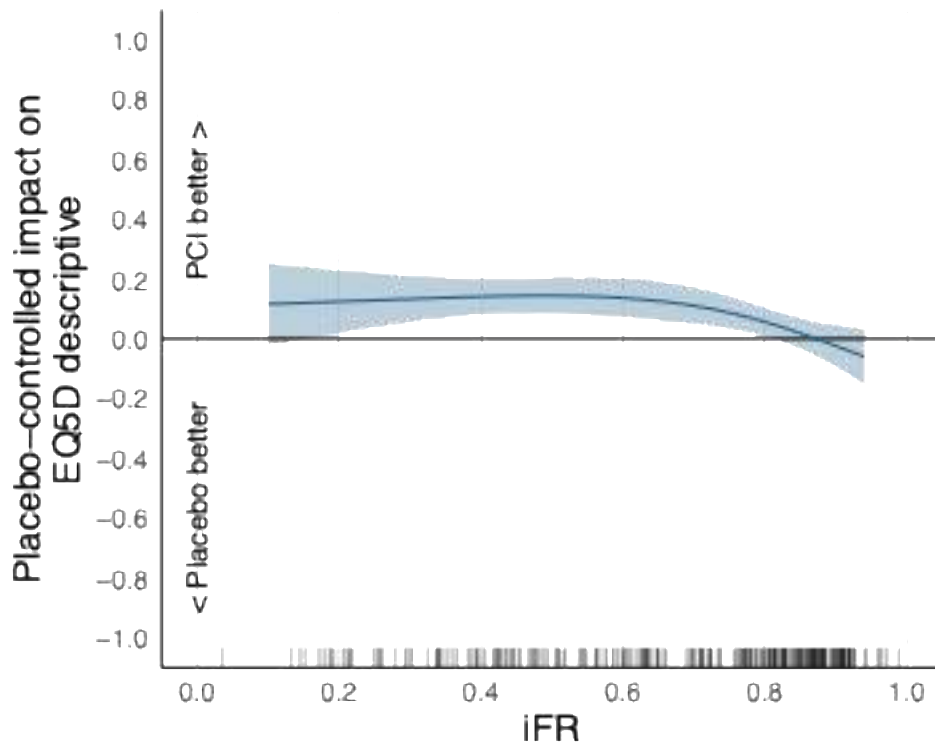


Supplementary figure S139: chain plot of MCMC draws for DSE score for Rose angina and Rose nonangina

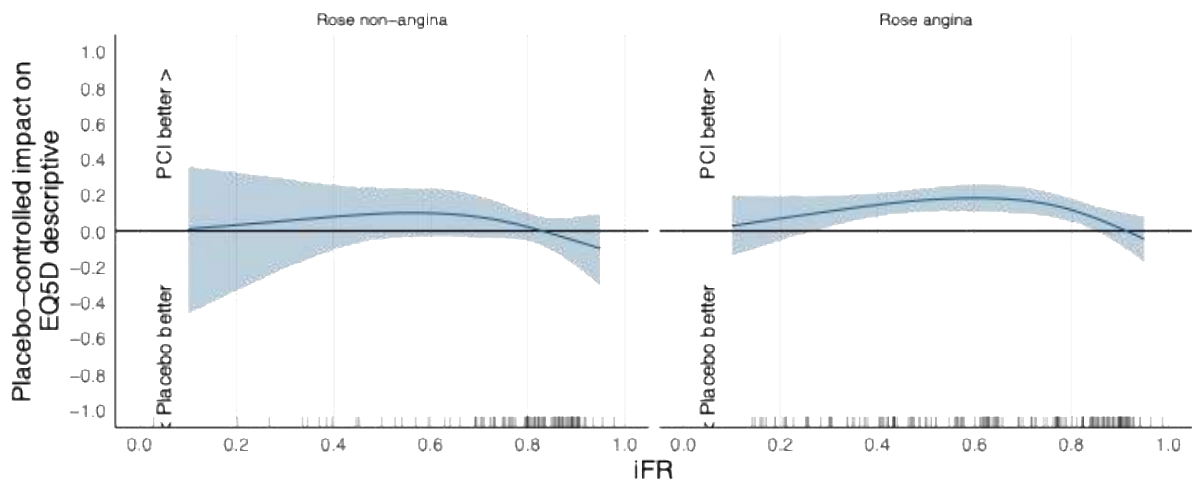


EQ-5D-5L index value

Supplementary figure S140: result: EQ-5D-5L index value



Supplementary figure S141: result: EQ-5D-5L index value for Rose angina and Rose nonangina



Supplementary figure S142: Regression model and coefficients for EQ-5D-5L index value

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.029 for Intercepts

```
blrm(formula = eq5d_value_fu ~ rcs(eq5d_value_random, 3) + Treatment *
rcs(angio_stenosis_ifr, 3), data = analysis_d, pcontrast = pcon,
iter = 20000, chains = 4, refresh = 100, progress = file.path(output_dir,
"interact_res1.progress.txt"), loo = FALSE, ppairs = NULL,
method = "sampling", file = file.path(output_dir, "interact_res1.blrm.rds"))
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes       | Rank Discrim.<br>Indexes            |
|-------------|--|---------------------------------|-------------------------------------|
| Obs 268     | B 0.004 [0.004, 0.005]                       | g 1.724 [1.437, 2.014]          | C 0.738 [0.73, 0.743]               |
| Draws 40000 |  | g <sub>p</sub> 0.005 [0, 0.017] | D <sub>xy</sub> 0.476 [0.46, 0.486] |
| Chains 4    |  | EV 0.05 [0, 0.163]              |                                     |
| Time 30.2s  |  | v 2.455 [1.703, 3.344]          |                                     |
| p 7         |  | vp 0 [0, 0.001]                 |                                     |

|                                     | Mean β  | Median β | S.E.   | Lower   | Upper  | Pr(β>0) | Symmetry |
|-------------------------------------|---------|----------|--------|---------|--------|---------|----------|
| eq5d_value_random                   | 4.6527  | 4.6385   | 0.9162 | 2.8764  | 6.4802 | 1.0000  | 1.04     |
| eq5d_value_random'                  | 2.8809  | 2.8656   | 1.3542 | 0.2339  | 5.5757 | 0.9838  | 1.03     |
| Treatment=PCI                       | 1.2872  | 1.2857   | 1.0316 | -0.7139 | 3.3259 | 0.8950  | 1.02     |
| angio_stenosis_ifr                  | -0.8440 | -0.8368  | 1.4902 | -3.7304 | 2.0934 | 0.2854  | 0.99     |
| angio_stenosis_ifr'                 | 1.0520  | 1.0477   | 1.5284 | -1.8932 | 4.1307 | 0.7564  | 1.00     |
| Treatment=PCI × angio_stenosis_ifr  | 0.8375  | 0.8372   | 2.1986 | -3.4506 | 5.1841 | 0.6484  | 0.99     |
| Treatment=PCI × angio_stenosis_ifr' | -4.2663 | -4.2642  | 2.2962 | -8.8932 | 0.1670 | 0.0317  | 1.00     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S143: Regression model and coefficients for EQ-5D-5L index value for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.031 for Intercepts

```
blrm(formula = eq5d_value_fu ~ rcs(eq5d_value_random, 3) + Treatment *
rcs(angio_stenosis_ifr, 3) * rose_is_angina_random, data = rose_analysis_d,
pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
progress = file.path(output_dir, "interact_res2.progress.txt"),
loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
"interact_res2.blrm.rds"))
```

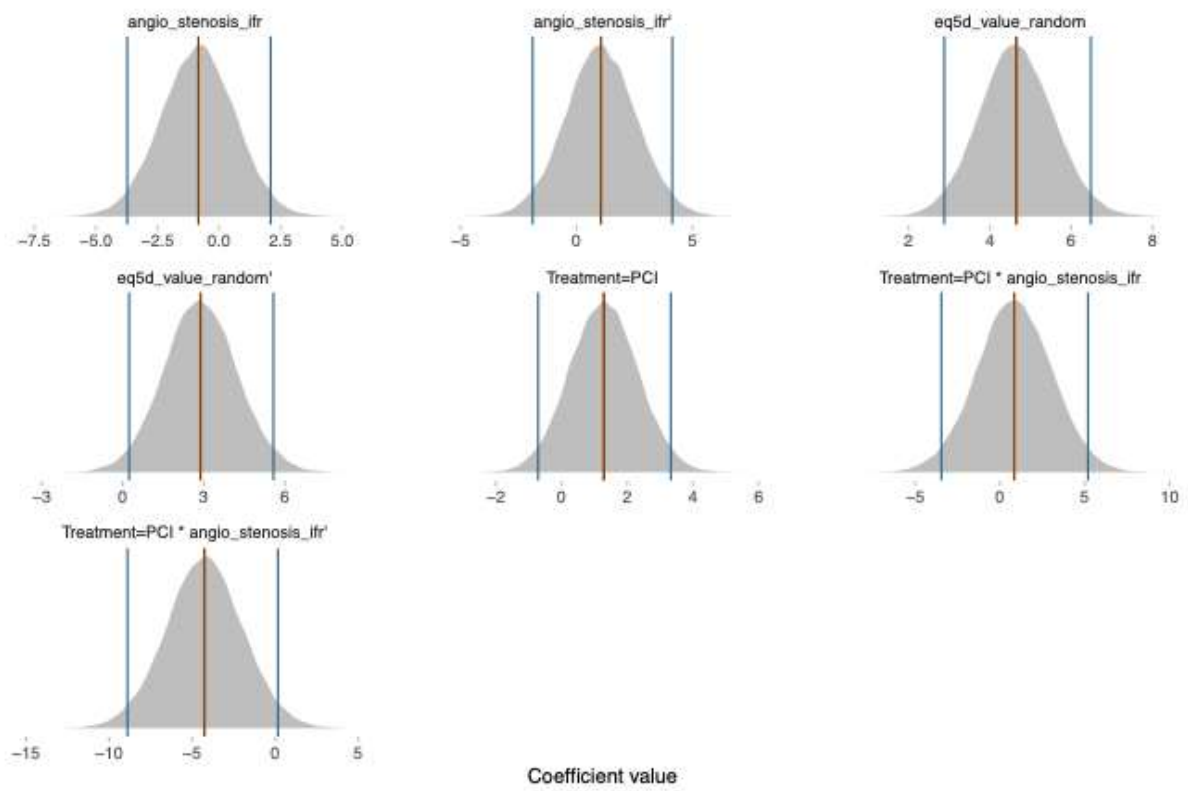
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes             |
|-------------|--|-------------------------------------|--------------------------------------|
| Obs 239     | B 0.169 [0.159, 0.177]                       | g 1.992 [1.64, 2.344]               | C 0.746 [0.736, 0.752]               |
| Draws 40000 |  | g <sub>p</sub> 0.336 [0.303, 0.367] | D <sub>xy</sub> 0.492 [0.473, 0.504] |
| Chains 4    |  | EV 0.34 [0.277, 0.407]              |                                      |
| Time 35.8s  |  | v 3.216 [2.127, 4.402]              |                                      |
| p 13        |  | vp 0.085 [0.068, 0.101]             |                                      |

|   | Mean β  | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|---|---------|----------|--------|----------|---------|---------|----------|
| eq5d_value_random   | 4.1234  | 4.1208   | 0.9976 | 2.1929   | 6.0972  | 0.9999  | 1.00     |
| eq5d_value_random'  | 4.1180  | 4.1064   | 1.5099 | 1.2034   | 7.1404  | 0.9974  | 1.04     |
| Treatment=PCI   | -0.0816 | -0.1052  | 2.9119 | -5.8013  | 5.6846  | 0.4853  | 1.02     |
| angio_stenosis_ifr  | -2.5820 | -2.5265  | 2.5816 | -7.6652  | 2.4844  | 0.1564  | 0.94     |
| angio_stenosis_ifr'   | 3.6412  | 3.6265   | 2.7504 | -1.7974  | 8.9678  | 0.9097  | 1.02     |
| rose_is_angina_random                                       | 0.1828  | 0.2076   | 1.4801 | -2.7477  | 3.0626  | 0.5560  | 0.97     |
| Treatment=PCI × angio_stenosis_ifr                          | 2.2557  | 2.2497   | 5.4910 | -8.7185  | 12.9664 | 0.6633  | 0.98     |
| Treatment=PCI × angio_stenosis_ifr'                         | -4.7417 | -4.7316  | 5.0517 | -14.6606 | 5.1081  | 0.1727  | 1.01     |
| Treatment=PCI × rose_is_angina_random                       | -0.0838 | -0.0715  | 3.1782 | -6.2614  | 6.1819  | 0.4915  | 0.99     |
| angio_stenosis_ifr × rose_is_angina_random                  | 1.4960  | 1.4664   | 3.2090 | -4.7316  | 7.7912  | 0.6778  | 1.03     |
| angio_stenosis_ifr' × rose_is_angina_random                 | -2.8463 | -2.8440  | 3.4065 | -9.4096  | 3.9091  | 0.2022  | 0.99     |
| Treatment=PCI × angio_stenosis_ifr × rose_is_angina_random  | 2.7491  | 2.7426   | 6.1911 | -9.5456  | 14.6746 | 0.6714  | 1.01     |
| Treatment=PCI × angio_stenosis_ifr' × rose_is_angina_random | -3.1036 | -3.1072  | 5.9042 | -14.3684 | 8.7070  | 0.3007  | 0.99     |

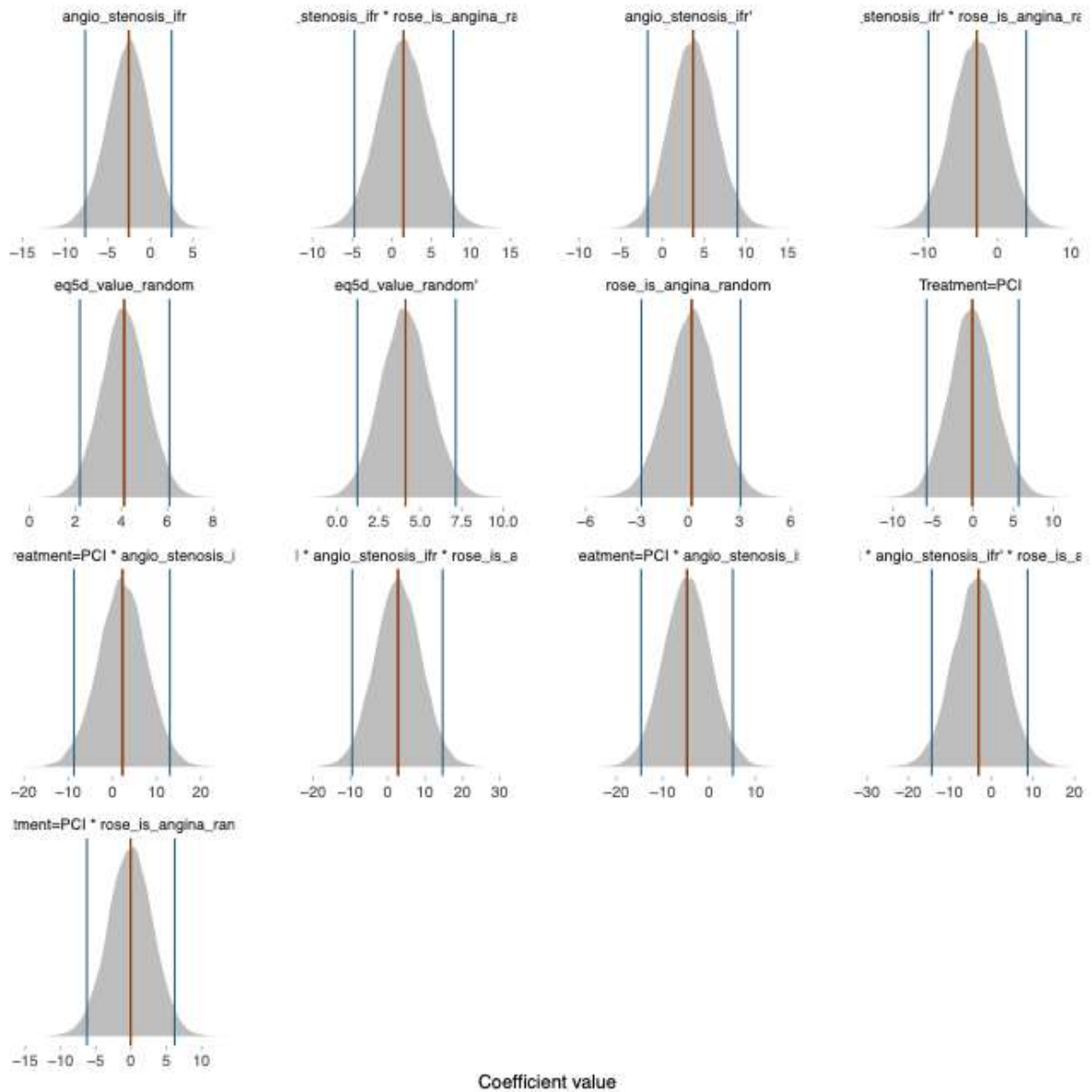
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

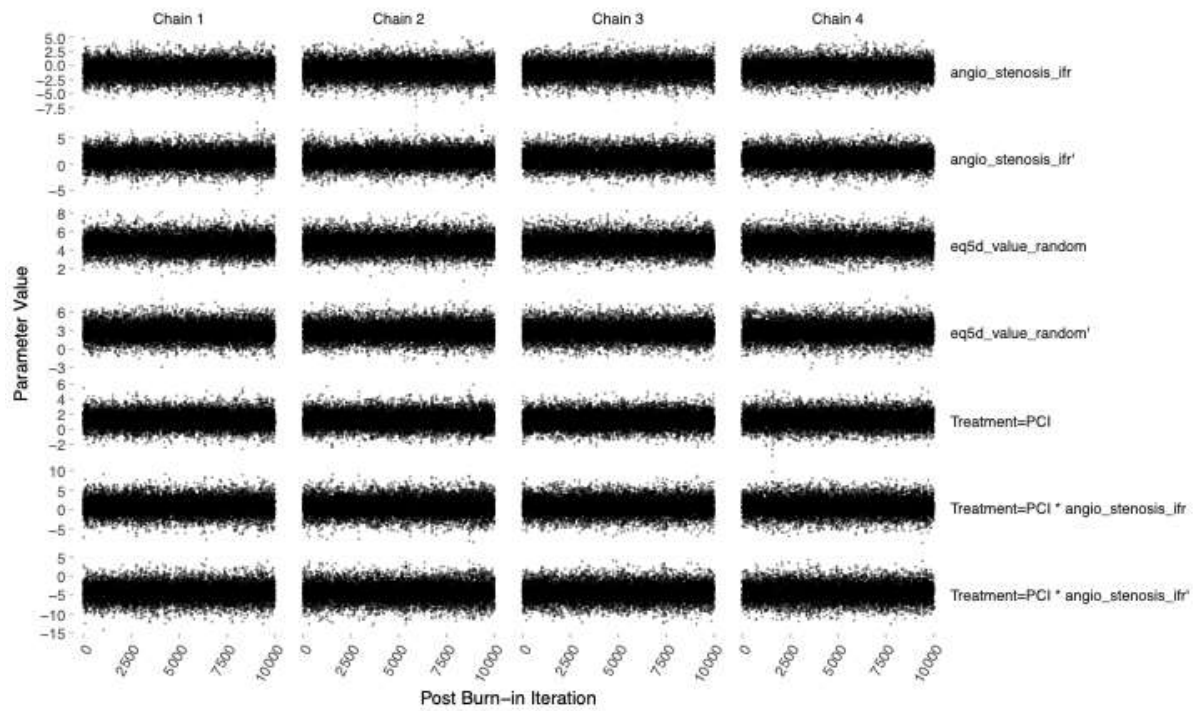
Supplementary figure S144: coefficient density plots: EQ-5D-5L index value



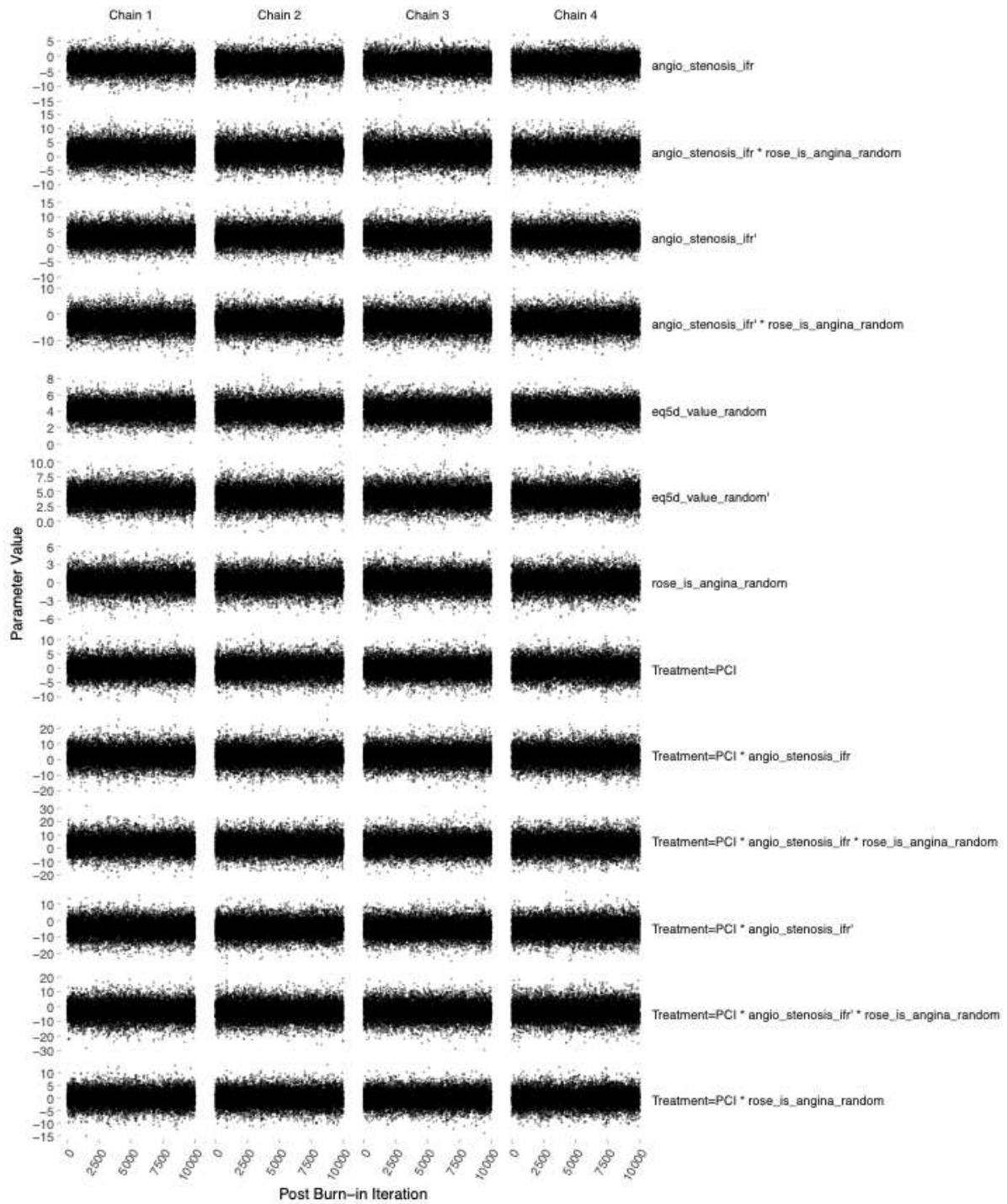
Supplementary figure S145: coefficient density plots: EQ-5D-5L index value for Rose angina and Rose nonangina



Supplementary figure S146: chain plot of MCMC draws for EQ-5D-5L index value



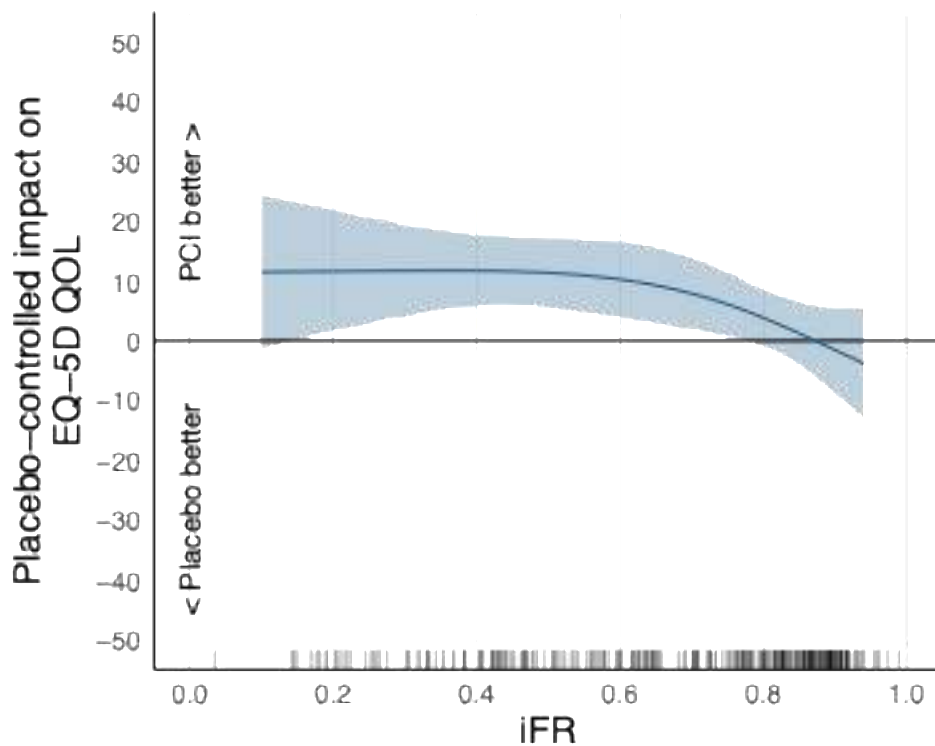
Supplementary figure S146: chain plot of MCMC draws for EQ-5D-5L index value for Rose angina and Rose nonangina



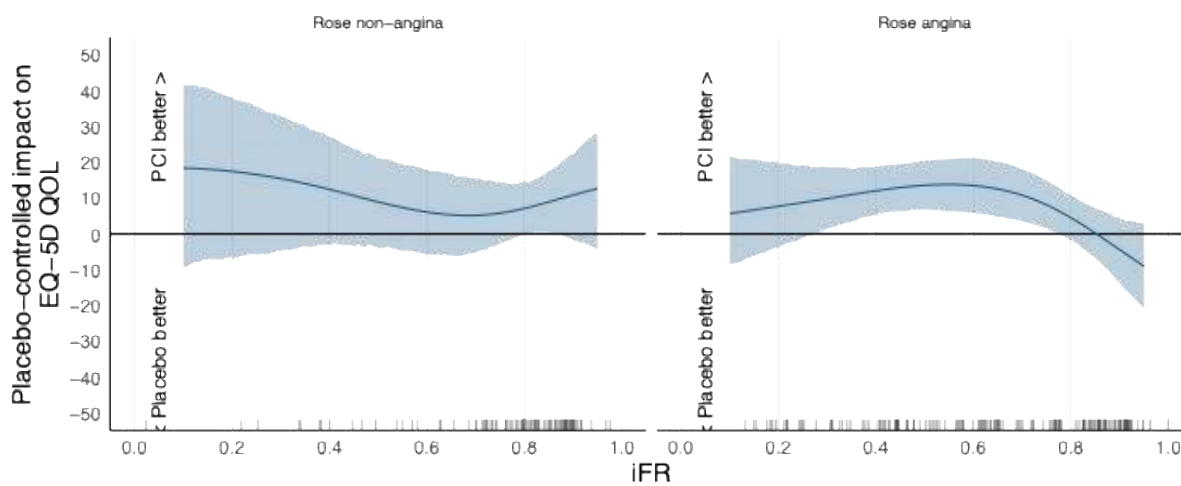


EQ-5D-5L visual analogue scale

Supplementary figure S147: result: EQ-5D-5L visual analogue scale



Supplementary figure S148: result: EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina



Supplementary figure S149: Regression model and coefficients for EQ-5D-5L visual analogue scale

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.086 for Intercepts

```
blrm(formula = eq5d_qol_post ~ rcs(eq5d_qol_pre, 3) + Treatment *
      rcs(angio_stenosis_ifr, 3), data = analysis_d, pcontrast = pcon,
      iter = 20000, chains = 4, refresh = 100, progress = file.path(output_dir,
      "interact_res1.progress.txt"), loo = FALSE, ppairs = NULL,
      method = "sampling", file = file.path(output_dir, "interact_res1.blrm.rds"))
```

Frequencies of Responses

|    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 6  | 15 | 20 | 25 | 30 | 35 | 38  | 40 | 45 | 50 | 55 | 56 | 60 | 63 | 64 | 65 | 70 | 73 | 74 | 75 | 78 | 80 | 82 | 85 |
| 1  | 1  | 2  | 5  | 5  | 4  | 1   | 11 | 6  | 22 | 5  | 1  | 22 | 1  | 1  | 13 | 26 | 1  | 1  | 23 | 1  | 29 | 2  | 28 |
| 86 | 88 | 90 | 95 | 98 | 99 | 100 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1  | 2  | 32 | 14 | 2  | 3  | 2   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes           |
|-------------|--|-------------------------------------|------------------------------------|
| Obs 268     | B 0.195 [0.19, 0.2]                          | g 1.396 [1.131, 1.67]               | C 0.706 [0.7, 0.711]               |
| Draws 40000 |  | g <sub>p</sub> 0.277 [0.236, 0.309] | D <sub>xy</sub> 0.412 [0.4, 0.422] |
| Chains 4    |  | EV 0.233 [0.171, 0.289]             |                                    |
| Time 25.9s  |  | v 1.547 [0.971, 2.142]              |                                    |
| p 7         |  | vp 0.058 [0.042, 0.072]             |                                    |

|                                      | Mean β  | Median β | S.E.   | Lower   | Upper  | Pr(β>0) | Symmetry |
|--------------------------------------|---------|----------|--------|---------|--------|---------|----------|
| eq5d_qol_pre                         | 0.0470  | 0.0469   | 0.0119 | 0.0237  | 0.0705 | 1.0000  | 1.01     |
| eq5d_qol_pre'                        | 0.0228  | 0.0227   | 0.0169 | -0.0092 | 0.0571 | 0.9129  | 1.01     |
| Treatment=PCI                        | 1.4706  | 1.4688   | 1.0133 | -0.5065 | 3.4529 | 0.9274  | 1.01     |
| angio_stenosis_ifr                   | -1.4503 | -1.4415  | 1.5078 | -4.4449 | 1.4683 | 0.1672  | 0.98     |
| angio_stenosis_ifr'                  | 1.7850  | 1.7921   | 1.5401 | -1.2754 | 4.7543 | 0.8763  | 1.01     |
| Treatment=PCI × cardio_stenosis_ifr  | -0.3667 | -0.3590  | 2.1397 | -4.5463 | 3.8002 | 0.4334  | 1.01     |
| Treatment=PCI × cardio_stenosis_ifr' | -2.4314 | -2.4471  | 2.2432 | -6.8959 | 1.8806 | 0.1406  | 1.00     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S150: Regression model and coefficients for EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.086 for Intercepts

```
blrm(formula = eq5d_qol_post ~ rcs(eq5d_qol_pre, 3) + Treatment *
      rcs(angio_stenosis_ifr, 3) + rose_is_angina_random, data = rose_analysis_d,
      pcontrast = pcon, iter = 20000, chains = 4, refresh = 100,
      progress = file.path(output_dir, "interact_res2.progress.txt"),
      loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
      "interact_res2.blrm.rds"))
```

Frequencies of Responses

|    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 6  | 15 | 20 | 25 | 30 | 35 | 38  | 40 | 45 | 50 | 55 | 56 | 60 | 63 | 64 | 65 | 70 | 73 | 74 | 75 | 78 | 80 | 82 | 85 |
| 1  | 1  | 2  | 3  | 4  | 3  | 1   | 9  | 6  | 19 | 4  | 1  | 21 | 1  | 1  | 11 | 24 | 1  | 1  | 22 | 1  | 27 | 2  | 26 |
| 86 | 88 | 90 | 95 | 98 | 99 | 100 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1  | 1  | 27 | 11 | 2  | 3  | 2   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

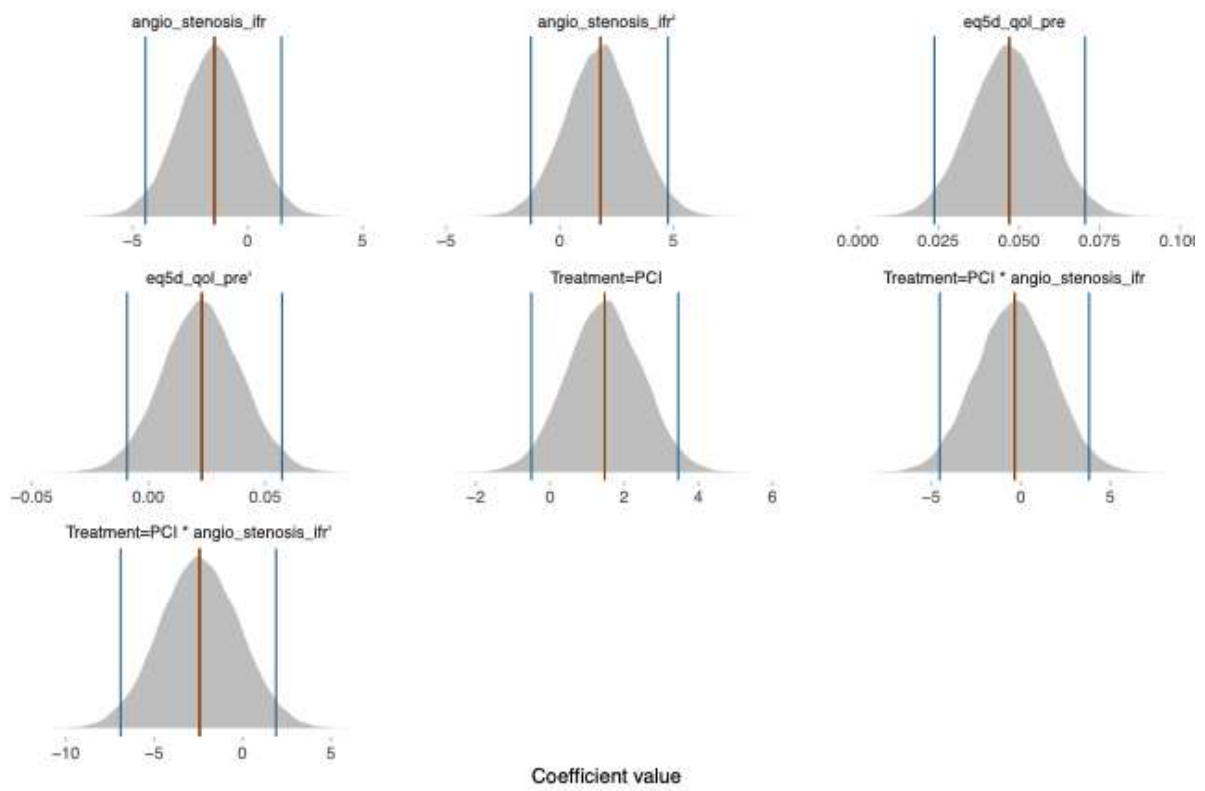
|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes          | Rank Discrim.<br>Indexes             |
|-------------|--|------------------------------------|--------------------------------------|
| Obs 239     | B 0.196 [0.19, 0.203]                        | g 1.513 [1.25, 1.825]              | C 0.706 [0.697, 0.714]               |
| Draws 40000 |  | g <sub>p</sub> 0.294 [0.259, 0.33] | D <sub>xy</sub> 0.412 [0.393, 0.428] |
| Chains 4    |  | EV 0.261 [0.202, 0.328]            |                                      |
| Time 39.3s  |  | v 1.799 [1.198, 2.562]             |                                      |
| p 13        |  | vp 0.065 [0.05, 0.081]             |                                      |

|  | Mean β   | Median β | S.E.   | Lower    | Upper   | Pr(β>0) | Symmetry |
|--|----------|----------|--------|----------|---------|---------|----------|
| eq5d_qol_pre   | 0.0416   | 0.0416   | 0.0131 | 0.0152   | 0.0665  | 0.9991  | 1.01     |
| eq5d_qol_pre'  | 0.0332   | 0.0333   | 0.0180 | -0.0014  | 0.0692  | 0.9673  | 1.00     |
| Treatment=PCI  | 3.7213   | 3.6957   | 2.9080 | -1.9738  | 9.5010  | 0.9020  | 1.04     |
| angio_stenosis_ifr   | -2.6231  | -2.5705  | 2.6659 | -7.8621  | 2.5072  | 0.1620  | 0.93     |
| angio_stenosis_ifr'  | 1.9247   | 1.8968   | 2.7699 | -3.3878  | 7.4152  | 0.7554  | 1.03     |
| rose_is_angina_random  | 0.1617   | 0.1932   | 1.5736 | -2.9015  | 3.2529  | 0.5475  | 0.96     |
| Treatment=PCI × cardio_stenosis_ifr                          | -5.6088  | -5.5623  | 5.4434 | -16.2068 | 5.2304  | 0.1505  | 0.98     |
| Treatment=PCI × cardio_stenosis_ifr'                         | 4.8004   | 4.7920   | 5.0258 | -4.8723  | 14.7840 | 0.8290  | 1.01     |
| Treatment=PCI × rose_is_angina_random                        | -3.1963  | -3.1644  | 3.1810 | -9.4356  | 3.0675  | 0.1559  | 0.98     |
| angio_stenosis_ifr × rose_is_angina_random                   | -0.0913  | -0.1223  | 3.3145 | -6.3998  | 6.5812  | 0.4852  | 1.03     |
| angio_stenosis_ifr' × rose_is_angina_random                  | 1.9049   | 1.9285   | 3.4747 | -4.8045  | 8.7897  | 0.7079  | 0.99     |
| Treatment=PCI × cardio_stenosis_ifr × rose_is_angina_random  | 7.9100   | 7.8858   | 6.1226 | -3.9619  | 19.9918 | 0.9032  | 1.02     |
| Treatment=PCI × cardio_stenosis_ifr' × rose_is_angina_random | -10.6815 | -10.6557 | 5.8590 | -21.7487 | 1.1423  | 0.0336  | 0.99     |

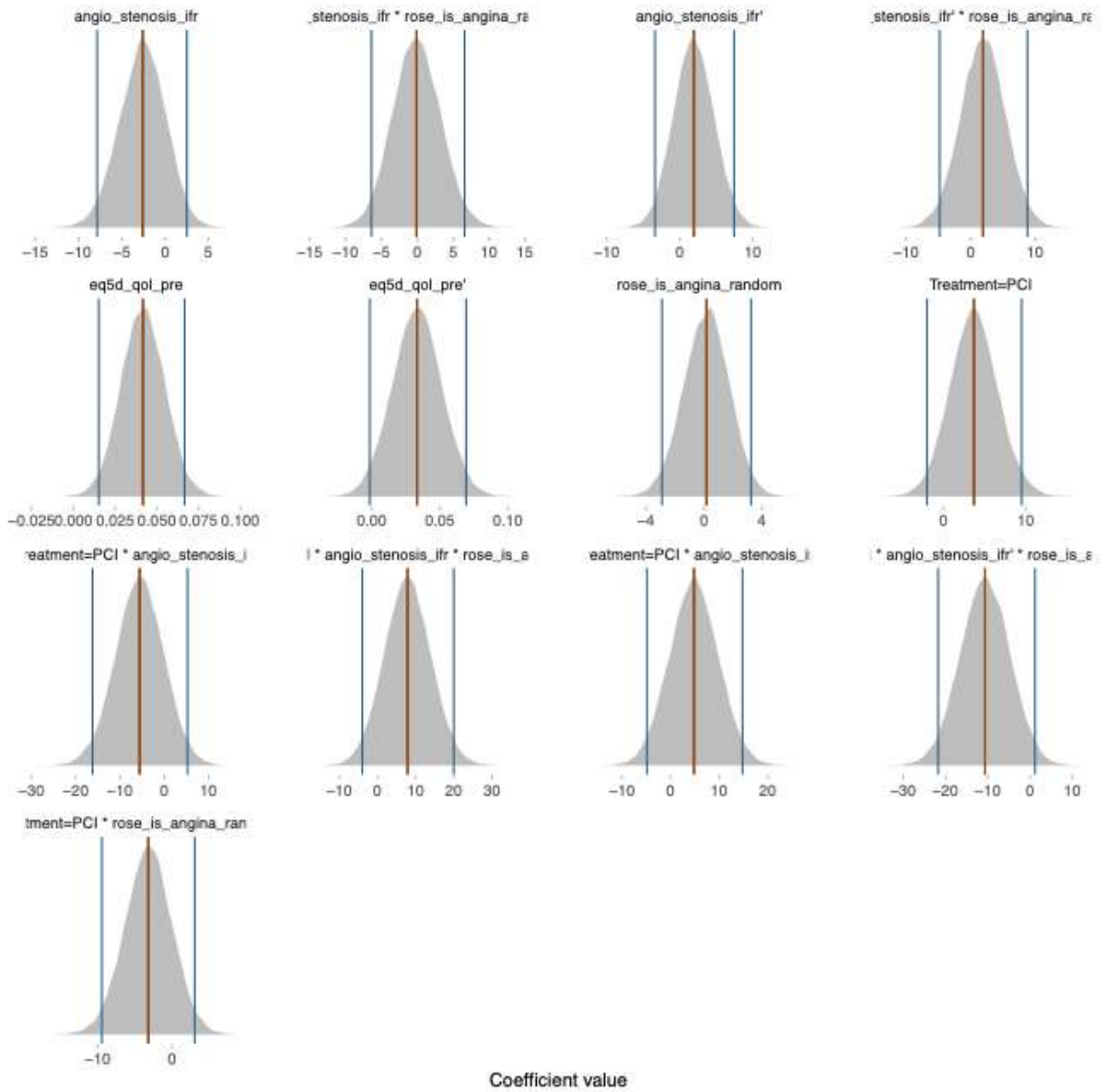
Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

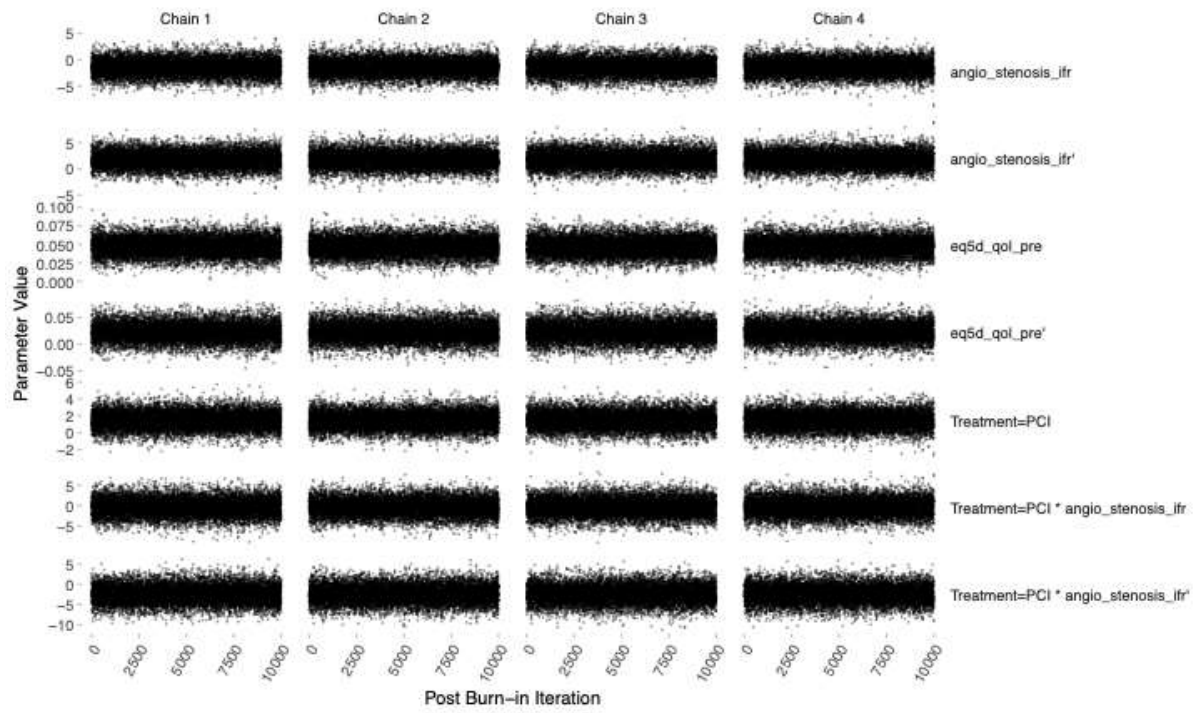
Supplementary figure S151: coefficient density plots: EQ-5D-5L visual analogue scale



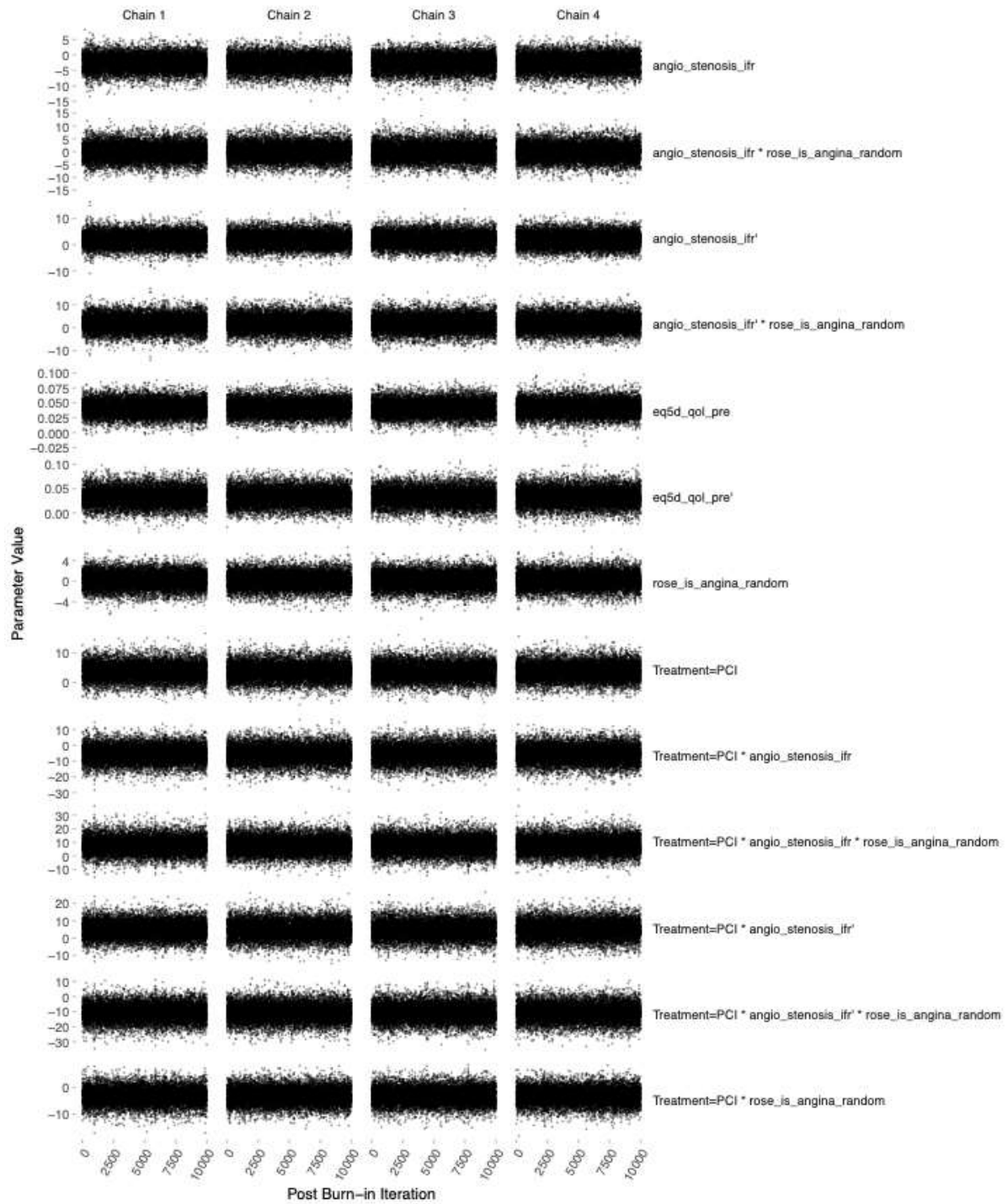
Supplementary figure S152: coefficient density plots: EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina



Supplementary figure S153: chain plot of MCMC draws for EQ-5D-5L visual analogue scale

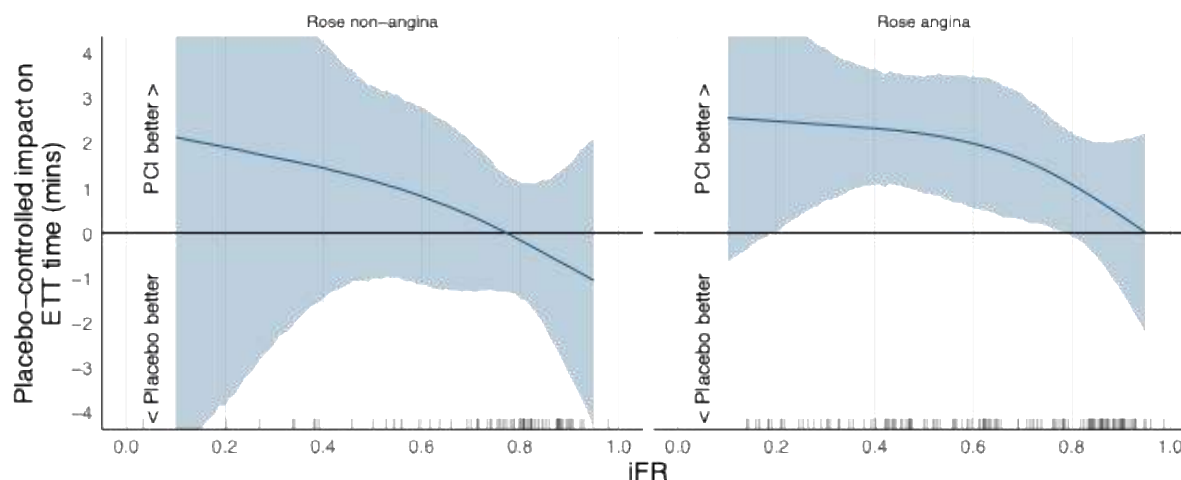


Supplementary figure S154: chain plot of MCMC draws for EQ-5D-5L visual analogue scale for Rose angina and Rose nonangina



## Treadmill exercise time

Supplementary figure S155: result: treadmill exercise time for Rose angina and Rose nonangina



Supplementary figure S156: Regression model and coefficients for treadmill exercise time

### Bayesian Proportional Odds Ordinal Logistic Model

Dirichlet Priors With Concentration Parameter 0.015 for Intercepts

```
blrm(formula = fu_ett_seconds ~ rcs(baseline_ett_seconds, 3) +
      Treatment * rcs(angio_stenosis_ifr, 3), data = analysis_d,
      pconstrast = pcon, iter = 20000, chains = 4, refresh = 100,
      progress = file.path(output_dir, "interact_res1.progress.txt"),
      too = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
      "interact_res1.blrm.rds"))
```

|             | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes           | Rank Discrim.<br>Indexes            |
|-------------|--|-------------------------------------|-------------------------------------|
| Obs 217     | B 0.141 [0.136, 0.146]                       | g 2.567 [2.153, 2.926]              | C 0.782 [0.778, 0.785]              |
| Draws 40000 |  | g <sub>p</sub> 0.381 [0.358, 0.406] | D <sub>xy</sub> 0.564 [0.556, 0.57] |
| Chains 4    |  | EV 0.444 [0.387, 0.504]             |                                     |
| Time 59.2s  |  | v 5.199 [3.621, 6.754]              |                                     |
| p 7         |  | vp 0.111 [0.096, 0.126]             |                                     |

|  | Mean $\beta$ | Median $\beta$ | S.E.   | Lower   | Upper  | Pr( $\beta > 0$ ) | Symmetry |
|--|--------------|----------------|--------|---------|--------|-------------------|----------|
| baseline_ett_seconds                       | 0.0095       | 0.0094         | 0.0014 | 0.0066  | 0.0122 | 1.0000            | 1.05     |
| baseline_ett_seconds'                      | -0.0005      | -0.0005        | 0.0014 | -0.0032 | 0.0022 | 0.3502            | 0.99     |
| Treatment=PCI                              | 2.4585       | 2.4616         | 1.1511 | 0.1797  | 4.6941 | 0.9837            | 1.00     |
| angio_stenosis_ifr                         | -0.1022      | -0.1058        | 1.6422 | -3.3654 | 3.0833 | 0.4740            | 1.02     |
| angio_stenosis_ifr'                        | 0.7080       | 0.7092         | 1.7513 | -2.7165 | 4.1260 | 0.6566            | 1.00     |
| Treatment=PCI $\times$ angio_stenosis_ifr  | -2.3645      | -2.3660        | 2.4524 | -7.2020 | 2.3632 | 0.1672            | 1.01     |
| Treatment=PCI $\times$ angio_stenosis_ifr' | -1.4509      | -1.4547        | 2.5919 | -6.6387 | 3.4858 | 0.2876            | 0.99     |

Contrasts Given Priors

```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842807127883599)
```

Supplementary figure S157: Regression model and coefficients for treadmill exercise time for Rose angina and Rose nonangina

**Bayesian Proportional Odds Ordinal Logistic Model**

Dirichlet Priors With Concentration Parameter 0.016 for Intercepts

```
blrm(formula = fu_ett_seconds ~ rcs(baseline_ett_seconds, 3) +
      Treatment * rcs(angio_stenosis_ifr, 3) * rose_is_angina_random,
      data = rose_analysis_d, pcontrast = pcon, iter = 20000, chains = 4,
      refresh = 100, progress = file.path(output_dir, "interact_res2.progress.txt"),
      loo = FALSE, ppairs = NULL, method = "sampling", file = file.path(output_dir,
      "interact_res2.blrm.rds"))
```

|              | Mixed Calibration/<br>Discrimination Indexes | Discrimination<br>Indexes            | Rank Discrim.<br>Indexes        |
|--------------|--|--------------------------------------|---------------------------------|
| Obs: 193     | B: 0.144 [0.138, 0.151]                      | $\hat{\mu}$ : 2.553 [2.148, 2.986]   | C: 0.771 [0.764, 0.778]         |
| Draws: 40000 |  | $\hat{\mu}_p$ : 0.382 [0.353, 0.406] | $D_{xy}$ : 0.543 [0.528, 0.555] |
| Chains: 4    |  | EV: 0.446 [0.376, 0.508]             |                                 |
| Time: 59.2s  |  | $\nu$ : 5.146 [3.551, 6.84]          |                                 |
| p: 13        |  | $\nu_p$ : 0.112 [0.094, 0.127]       |                                 |

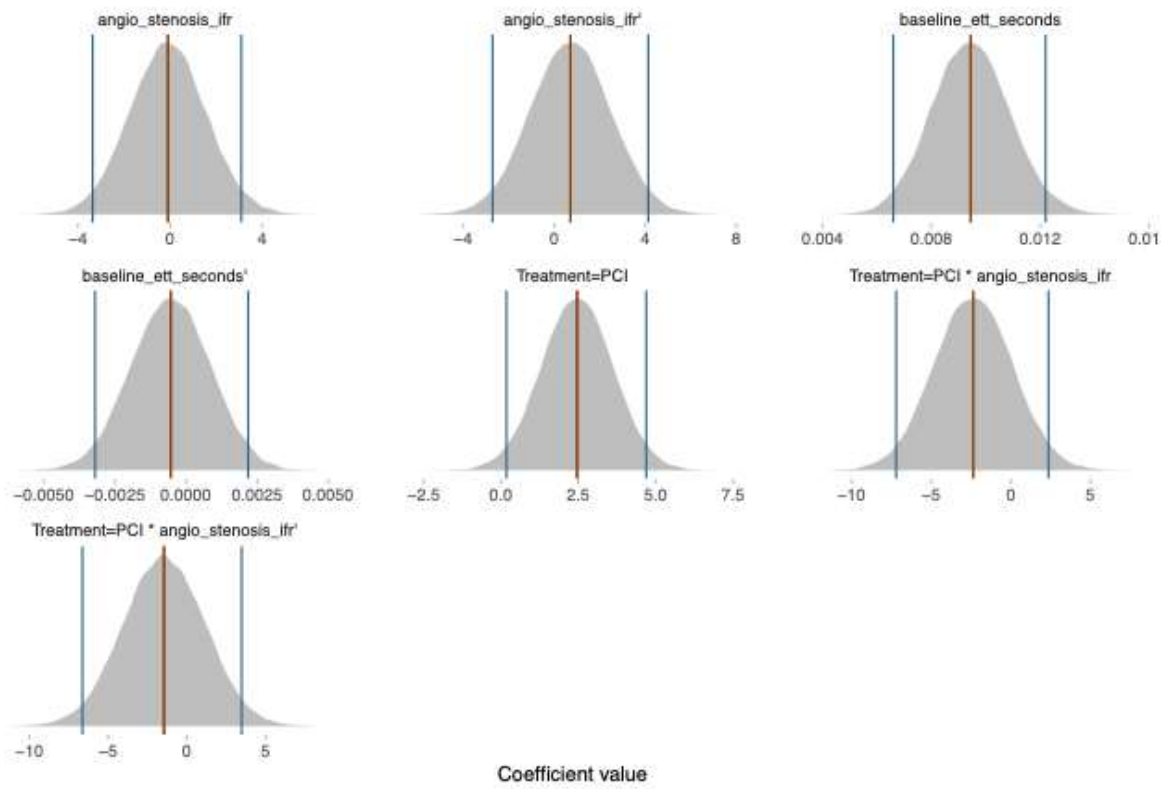
|   | Mean $\beta$ | Median $\beta$ | S.E.   | Lower    | Upper   | Pr( $\beta > 0$ ) | Symmetry |
|---|--------------|----------------|--------|----------|---------|-------------------|----------|
| baseline_ett_seconds  | 0.0097       | 0.0096         | 0.0015 | 0.0068   | 0.0128  | 1.0000            | 1.04     |
| baseline_ett_seconds'   | -0.0011      | -0.0011        | 0.0015 | -0.0040  | 0.0017  | 0.2250            | 1.00     |
| Treatment=PCI   | 1.6685       | 1.6449         | 3.0916 | -4.3912  | 7.7773  | 0.7055            | 1.01     |
| angio_stenosis_ifr  | -0.0283      | -0.1055        | 2.8534 | -5.6030  | 5.6157  | 0.4858            | 1.07     |
| angio_stenosis_ifr'   | 1.9982       | 2.0001         | 3.0215 | -3.9205  | 7.9519  | 0.7477            | 1.00     |
| rose_is_angina_random   | 0.3890       | 0.3551         | 1.6993 | -2.8442  | 3.8445  | 0.5836            | 1.06     |
| Treatment=PCI $\times$ angio_stenosis_ifr                                 | -1.7338      | -1.6843        | 5.9327 | -13.3119 | 10.0268 | 0.3875            | 0.99     |
| Treatment=PCI $\times$ angio_stenosis_ifr'                                | -1.1739      | -1.2017        | 5.4819 | -11.8147 | 9.6533  | 0.4148            | 1.01     |
| Treatment=PCI $\times$ rose_is_angina_random                              | 0.2363       | 0.2300         | 3.4257 | -6.5623  | 6.9038  | 0.5279            | 0.98     |
| angio_stenosis_ifr $\times$ rose_is_angina_random                         | -0.4294      | -0.3850        | 3.6756 | -7.5870  | 6.8326  | 0.4573            | 0.96     |
| angio_stenosis_ifr' $\times$ rose_is_angina_random                        | -1.6311      | -1.6191        | 3.8772 | -9.3124  | 5.8479  | 0.3358            | 0.99     |
| Treatment=PCI $\times$ angio_stenosis_ifr $\times$ rose_is_angina_random  | 1.1203       | 1.1226         | 6.8074 | -12.3562 | 14.4858 | 0.5654            | 1.03     |
| Treatment=PCI $\times$ angio_stenosis_ifr' $\times$ rose_is_angina_random | -0.8578      | -0.8651        | 6.4870 | -13.8450 | 11.5219 | 0.4454            | 1.01     |

Contrasts Given Priors

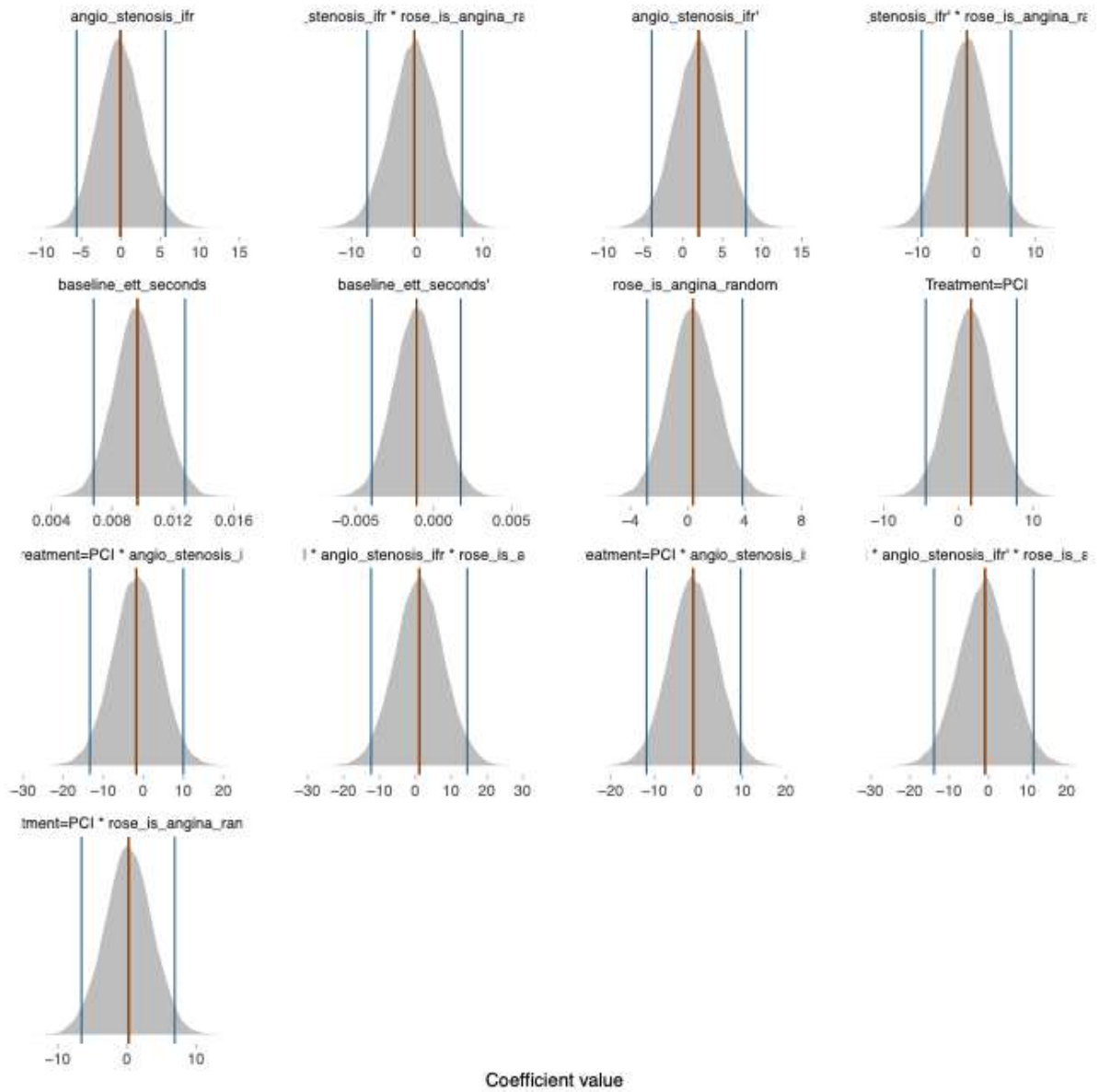
```
[1] list(c1 = list(Treatment = "Placebo"), c2 = list(Treatment = "PCI"),
[2] contrast = expression(c1 - c2), sd = 0.842007327883599)
```



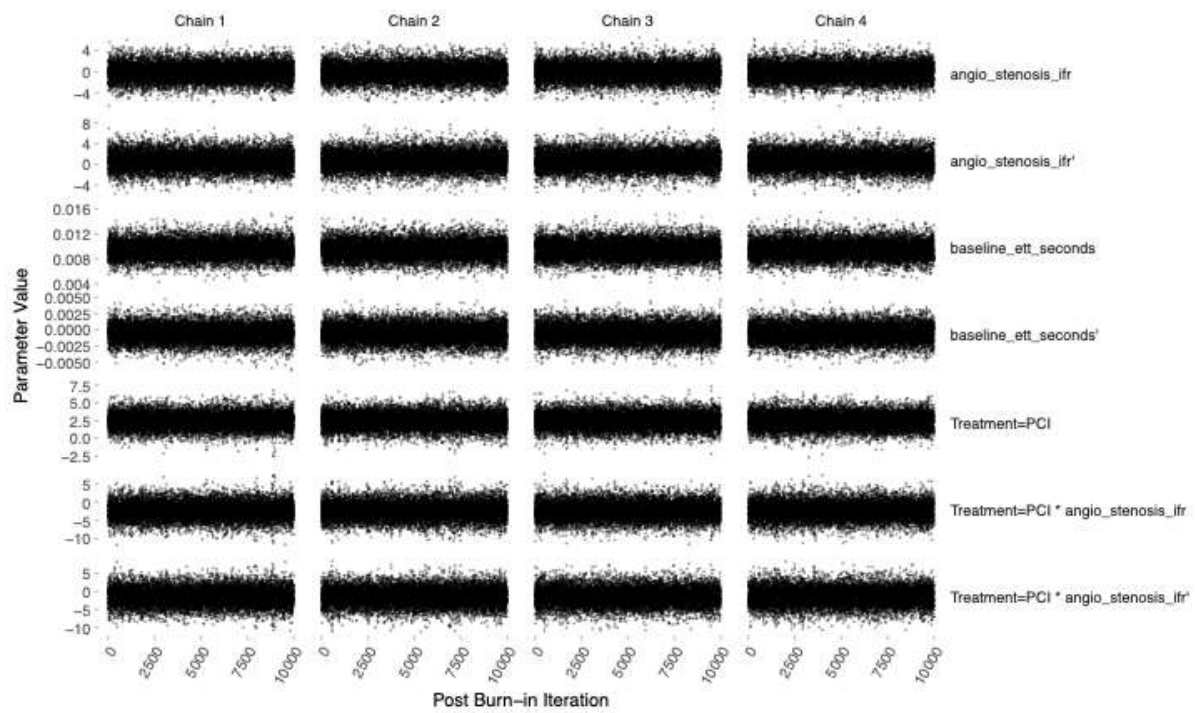
Supplementary figure S158: coefficient density plots: treadmill exercise time



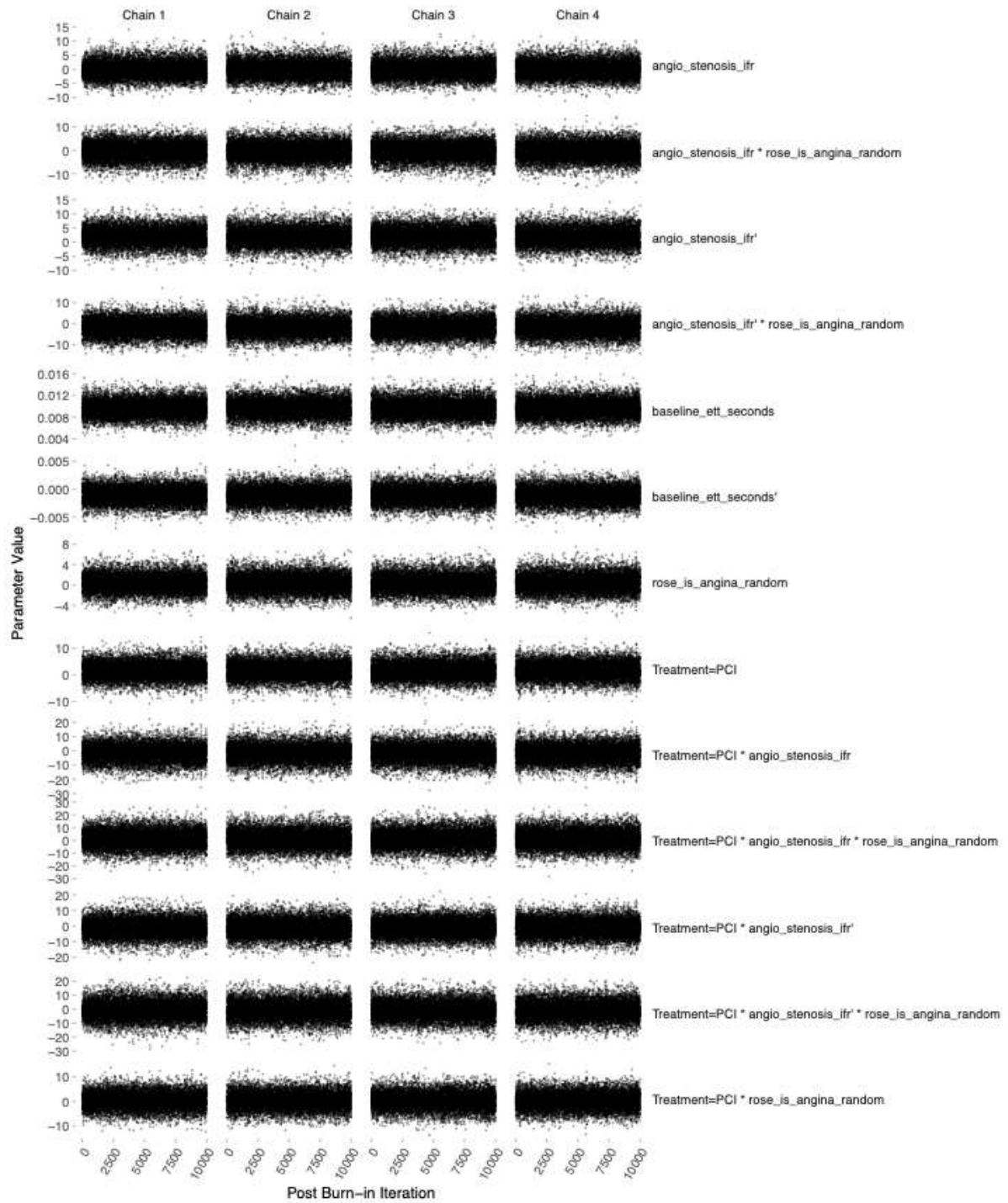
Supplementary figure S159: coefficient density plots: treadmill exercise time for Rose angina and Rose nonangina



Supplementary figure S160: chain plot of MCMC draws for treadmill exercise time



Supplementary figure S161: chain plot of MCMC draws for treadmill exercise time for Rose angina and Rose nonangina



## Supplementary figure S162: Consort checklist



### CONSORT 2010 checklist of information to include when reporting a randomised trial\*

| Section/Topic  | Item No | Checklist item  | Reported on page No |
|--|---------|---|---------------------|
| <b>Title and abstract</b>                            |         |   |                     |
|  | 1a      | Identification as a randomised trial in the title   | 1                   |
|  | 1b      | Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)   | 2                   |
| <b>Introduction</b>                                  |         |   |                     |
| Background and objectives                            |         |   |                     |
|  | 2a      | Scientific background and explanation of rationale  | 6                   |
|  | 2b      | Specific objectives or hypotheses   | 7                   |
| <b>Methods</b>                                       |         |   |                     |
| Trial design   |         |   |                     |
|  | 3a      | Description of trial design (such as parallel, factorial) including allocation ratio  | 8                   |
|  | 3b      | Important changes to methods after trial commencement (such as eligibility criteria), with reasons  | NA                  |
| Participants   |         |   |                     |
|  | 4a      | Eligibility criteria for participants   | 8                   |
|  | 4b      | Settings and locations where the data were collected  | 8                   |
| Interventions  |         |   |                     |
|  | 5       | The interventions for each group with sufficient details to allow replication, including how and when they were actually administered   | 8                   |
| Outcomes   |         |   |                     |
|  | 6a      | Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed  | 9                   |
|  | 6b      | Any changes to trial outcomes after the trial commenced, with reasons   | NA                  |
| Sample size  |         |   |                     |
|  | 7a      | How sample size was determined  | Supplement          |
|  | 7b      | When applicable, explanation of any interim analyses and stopping guidelines  | NA                  |
| Randomisation:                                       |         |   |                     |
| Sequence generation                                  |         |   |                     |
|  | 8a      | Method used to generate the random allocation sequence  | 9                   |
|  | 8b      | Type of randomisation; details of any restriction (such as blocking and block size)   | 9                   |
| Allocation concealment mechanism                     |         |   |                     |
|  | 9       | Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned | 9                   |
| Implementation                                       |         |   |                     |
|  | 10      | Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions   | 9                   |
| Blinding   |         |   |                     |
|  | 11a     | If done, who was blinded after assignment to interventions (for example, participants, care providers, those  | 9                   |
|  | 11b     | If relevant, description of the similarity of interventions   | 9                   |
| Statistical methods                                  |         |   |                     |
|  | 12a     | Statistical methods used to compare groups for primary and secondary outcomes   | 11                  |
|  | 12b     | Methods for additional analyses, such as subgroup analyses and adjusted analyses  | NA                  |
| <b>Results</b>                                       |         |   |                     |
| Participant flow (a diagram is strongly recommended) |         |   |                     |
|  | 13a     | For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome  | 13                  |
|  | 13b     | For each group, losses and exclusions after randomisation, together with reasons  | 13                  |
| Recruitment  |         |   |                     |
|  | 14a     | Dates defining the periods of recruitment and follow-up   | 13                  |
|  | 14b     | Why the trial ended or was stopped  |                     |
| Baseline data  |         |   |                     |
|  | 15      | A table showing baseline demographic and clinical characteristics for each group  | 13                  |
| Numbers analysed                                     |         |   |                     |
|  | 16      | For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups   | 13-16               |
| Outcomes and estimation                              |         |   |                     |
|  | 17a     | For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)   | 13-16               |
|  | 17b     | For binary outcomes, presentation of both absolute and relative effect sizes is recommended   | NA                  |
| Ancillary analyses                                   |         |   |                     |
|  | 18      | Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory   | NA                  |
| Harms  |         |   |                     |
|  | 19      | All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)   | 13                  |
| <b>Discussion</b>                                    |         |   |                     |
| Limitations  |         |   |                     |
|  | 20      | Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses  | 19                  |
| Generalisability                                     |         |   |                     |
|  | 21      | Generalisability (external validity, applicability) of the trial findings   | 19                  |
| Interpretation                                       |         |   |                     |
|  | 22      | Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence   | 19                  |
| <b>Other information</b>                             |         |   |                     |
| Registration   |         |   |                     |
|  | 23      | Registration number and name of trial registry  | 3                   |
| Protocol   |         |   |                     |
|  | 24      | Where the full trial protocol can be accessed, if available   | 3                   |
| Funding  |         |   |                     |
|  | 25      | Sources of funding and other support (such as supply of drugs), role of funders   | 20                  |

CONSORT 2010 checklist

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Citation: Schulz KF, Altman DG, Moher D, for the CONSORT Group. CONSORT 2010 Statement: updated guidelines for reporting parallel group randomised trials. BMC Medicine. 2010;8:18. © 2010 Schulz et al. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

\*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up-to-date references relevant to this checklist, see [www.consort-statement.org](http://www.consort-statement.org).

CONSORT 2010 checklist

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