

Domains of GRADE approach, such as inconsistency, imprecision, and risk of bias might be transferable to draft the conclusions in non-inferiority trials

Using the Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) approach to report the conclusions in a non-inferiority randomized clinical trial

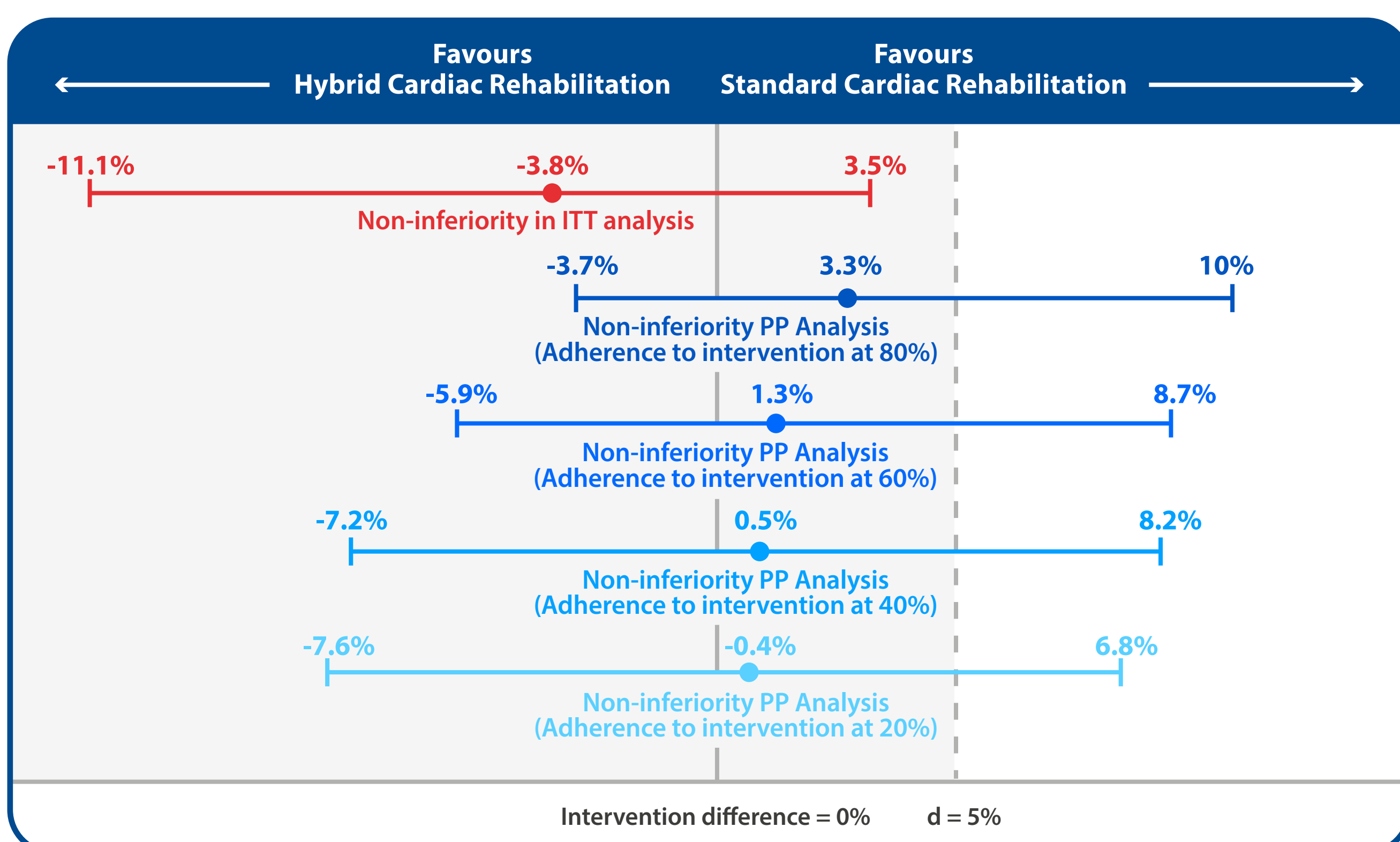
Background

The GRADE approach has not only refreshed the way in which the evidence is presented, and even though it has become a fact of high-quality systematic reviews, **its principles might be applicable to primary designs.**

Objectives

The conclusion of the study is therefore phrased as follows: a hybrid cardiac rehabilitation program may be not inferior to a standard cardiac rehabilitation program in terms of recurrent cardiovascular events.

Figure 1. Punctual estimate (absolute risk reduction) and confidence intervals of hybrid cardiac rehabilitation on recurrent cardiovascular events by intention-to-treat and per-protocol analysis.



ITT= Intention to Treat; PP= Per Protocol; non-inferiority threshold.

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Methods

HYCARET study evaluated the non-inferiority of a hybrid cardiac rehabilitation program for patients with coronary artery disease.

Main outcome: cardiovascular events.

Non-inferiority margin at Absolute Risk Difference = 5% of

Intention-to-treat analysis

Per-protocol analysis for four different percentages of adherence: 80%, 60%, 40%, and 20%

Then we plotted the effect estimates with their confidence intervals

We follow the GRADE guidelines

Results

Risk of bias	✓	Low
Inconsistency	✓	Consistent non-inferiority effect in all analyses
Indirectness	---	NA
Imprecision	↓ ↓	Loss of sample size. Wide confidence intervals crossing the non-inferiority threshold
Publication Bias	---	NA

NA= Not applicable

Implications: We hope that sharing our experience may help future authors of noninferiority trials not to focus only on thresholds in writing the conclusions of their papers and may consider including an assessment of the certainty of evidence.