

# Practical implications of assessing the risk of bias in a Cochrane review with alternative tools

In 2008, Cochrane released the Cochrane risk-of-bias (RoB) tool. A revised version for randomized trials (RoB 2) that seeks to address different concerns is being tested since 2019

## **Objectives**

Background



To compare the performance of RoB vs RoB 2 tools when applied to the same Cochrane review, analyzing differences in the assessment results in both individual domains and overall risk of bias.

# Methods

An ongoing Cochrane review entitled 'Blood pressure targets for hypertension in people with chronic renal disease' (protocol

published in 2019: CD008564) was included in the RoB 2 tool pilot

The risk of bias of the review was assessed using RoB and RoB 2 tools	

Any discrepancy on randomization, deviations-from-intended-interventions/blinding, missing/incomplete outcome data, reported result and overall bias, was noted and interpreted

The 'Outcome Measurement' domain was only estimated with the RoB 2 tool

Results

Six randomized trials (AASK, ACCORD, HOT, MDRD, SPRINT, SPS3) were included in the review

### **RESULTS OF THE RISK OF BIAS ASSESSMENT WITH ROB vs RoB 2:**

#### **ASSESSMENT WITH ROB:**

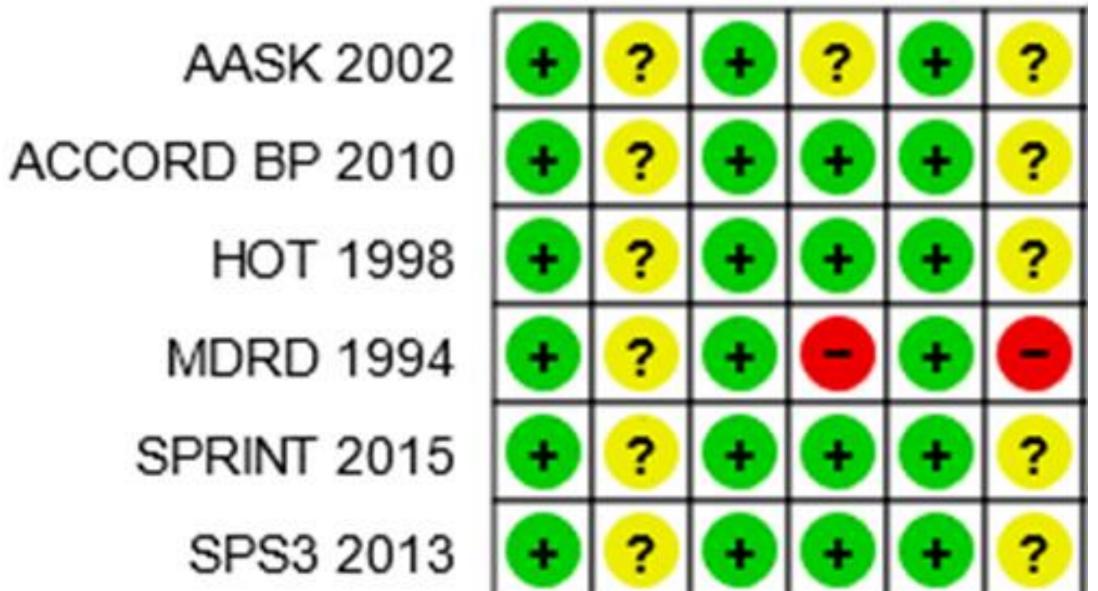
bias) (performance bias)

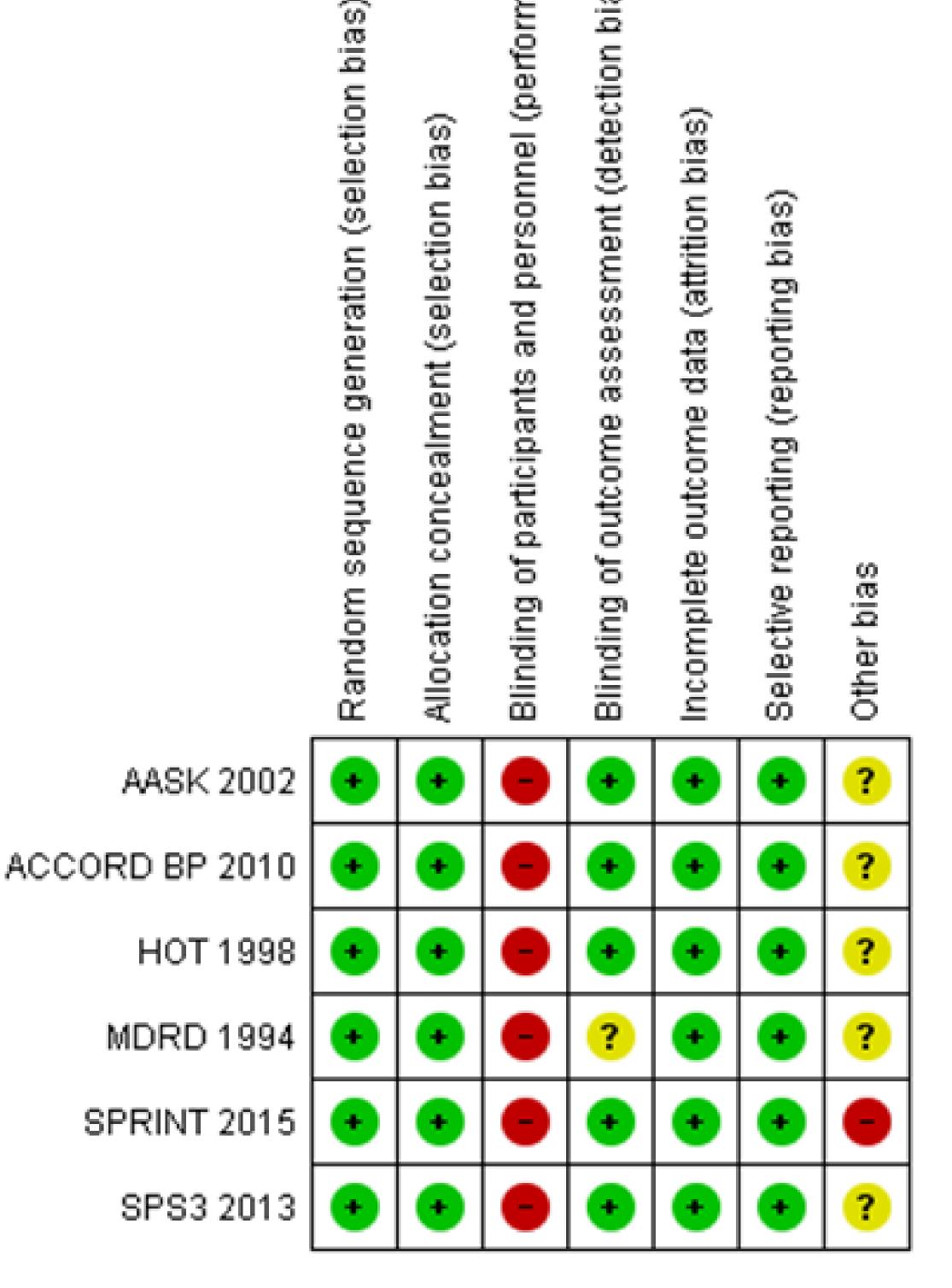
#### **ASSESSMENT WITH RoB 2:**

### **Risk of Bias**









#### **Risk of bias legend**

(A) Bias arising from the randomization process (B) Bias due to deviations from intended interventions (C) Bias due to missing outcome data (D) Bias in measurement of the outcome (E) Bias in selection of the reported result (F) Overall bias

Following **RoB 2**, only one study (MDRD 1994) was judged as having an **overall high risk of bias** 

Following **RoB**, all the included studies were judged as having an overall high risk of bias, mainly due to lack of blinding of participants and personnel (performance bias)

### Conclusions

RoB 2 led to a downplayed overall risk of bias compared to the RoB tool, mainly due to the fact that less emphasis is placed on blinding in the RoB 2 tool.

Further research is needed on the practical implications of moving to another risk-of-bias tool, which is closely linked to how the certainty of evidence will be graded in the future.

# Saiz LC, Erviti J, Leache L, Gutiérrez-Valencia M

Unit of Innovation and Organization, Navarre Regional Health Service, Pamplona, Spain Navarre Cochrane Associate Centre. Spain: Cochrane Iberoamerica. Contact address: Isaizfer@navarra.es

