

MAC's Criteria Tool for Study Analysis¹

The four sources of systematic bias in trials of the effects of healthcare:

1) Selection Criteria/Bias

- Participants and those who recruit should remain unaware of next assignment in sequence.
 - Empirical research has shown that lack of allocation concealment is associated with bias. Therefore, approaches such as below should be used.
 - Allocation by central office unaware of subject characteristics
 - Pre-numbered or coded identical containers which are administered serially to participants
 - On-site computer system combined with allocations kept in an unreadable until file that can be accessed only after the characteristics of enrolled participants have been entered.

2) Performance Criteria/Bias

- Refers to systematic differences in the care provided to the participants in the comparison groups other than the intervention under investigation.
- To protect against unintended differences in care and placebo effects, those providing and receiving care can be *blinded* so that they did not know the group to which the recipients of care have been allocated.

3) Attrition Criteria/Bias

- Refers to systematic differences between comparison groups in the loss of participants from the study.
- How are losses of participants (withdrawals, dropouts, protocol deviations) handled?

4) Detection Criteria/Bias

- Refers to systematic differences between the comparison groups in outcome assessment.

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¹ Developed by WCD with input from Medical Advisory Committee members and adapted from *Higgins JPT, Green S, editors. Cochrane Handbook for Systematic Reviews of Interventions 4.2.6* [updated September 2006]. <http://www.cochrane.org/resources/handbook/hbook.htm> (accessed 8th November 2006)