MAC’s Criteria Tool for Study Analysis

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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