

# Randomisation

A technique used to minimise imbalances in confounding variables between treatment and control group.

- Remove allocation bias and gives every patient an equal chance of ending up in any particular arm.

# Methods of randomisation

- Fixed Randomisation Methods
  - Simple
  - Blocks
  - Stratified
  - Consent
- Adaptive Randomisation Methods
  - Minimization

# Simple randomisation

- Use random number tables or computer to generate list of random numbers
- Best used with large samples
- Must be prepared by a third party

# Block randomisation

- Used to ensure numbers in each group
- List all possible permutations of treatment/control for a given block size and assign a number
- Use random numbers to pick block
- Researchers can often guess next allocation when block size is small.

# Stratified randomisation

- Ensure that important prognostic factors are balanced across groups
- Common factors are age, gender, severity, treatment centre
- Separate randomisation list for each set of characteristics (stratum)
- Allows subgroup analysis

# Consent randomisation

- Method used in trials interested in efficacies of compared treatments
- Used to lessen the effect of some patient refusal to participate

# Minimisation

- Ensure an overall balance in distribution of large number of prognostic factors
- Best performed centrally with computer program

# Allocation concealment

- Ensure the person who enter a participant into a randomised controlled trail does not know the comparison group
- Ideal methods are independent central randomisation center (tel: hotline), numbered opaque envelopes and pharmacy coded containers.