Endpoints, SAEs, stopping trials

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Endpoint

- Outcome of clinical importance
- Predetermined
- ‘Hard’ (e.g. MI) > ‘surrogate’ (e.g. BP)
- Censored (‘leave the study’ hence ‘end point’)
Endpoints

• Choose wisely
• Primary (1/2, composite/singular)
• Secondary (multiple – exploratory)
SAEs are defined as any untoward medical occurrence that:

- is fatal,
- is life-threatening
- requires in-patient hospitalisation or prolongation of existing hospitalisation
- causes persistent or significant disability/incapacity
- is an accidental or intentional overdose (drug trial).
• A clinical trial needs to measure both efficacy and safety
• Both need to be done in a systematic way to establish that benefit > harm
• In a RCT need oversight with access to treatment allocation
• DSMB has this role – if overwhelming benefit or harm can stop the trial.
Stopping trials

General rule

• DON’T stop
• Properly designed, powered etc should run the duration of the study
• Statistical anomalies may have statistical differences that disappear
• Common stopping is industry supported research where they withdraw the drug from the market 😞

General rule

• If you do stop need pre-defined stopping rules
• Need clear demonstration of benefit or harm in interim analyses
  – e.g. Haybittle–Peto boundary - interim analysis p < 0.001 that the treatments are different then the trial should be stopped early.
• DSMB being independent will have their own