

Statistical contribution to CRGs

Topics for discussion

- How far should we go with refereeing?
- Common statistical issues in refereeing
- Help/advice/training needs of CRG statisticians
- How to give feedback to review authors
- AOB

How far should we go with refereeing?

- Reviews only, *or* protocols too?
- All reviews, *or* a selection?
- 'bigger picture' issues *or* check every number *or* read original papers
- Should there be more standard text in protocols?
- How much can we expect from reviewers and how much should we do analyses for them?

Common statistical issues in refereeing

- Collect example checklists and share with each other?

Common errors (& things that probably aren't good)

- Design - Review doesn't match protocol; Peculiar outcome measures (e.g. dependence vs death/independence); Too many outcomes or subgroups; Confounded comparisons
- Data basics - Numbers don't add up; Graphs & text don't match; Differences between objectives, outcomes, plots
- Analysis - unit of analysis; ordinal scales; subgroups (post hoc; wrong analysis); Heterogeneity problems (I-squared plus chi-squared, No mention of heterogeneity); NNT not from OR
- Interpretation – Confusion of risk and odds, conclusions don't match results (absence of evidence v evidence of absence); overinterpreting poor quality; spin

What errors might we not be able to see?

- Have any papers been missed?
- Have the right results been copied from the papers?
- Have standard deviations been confused with standard errors?

Ways of avoiding / fixing problems

- Experienced reviewers – having a methodological expert on the review team
- Tuition - Distance learning; workshops; handbook (both for authors and editors)
- Checking - Statistician referees protocol and review; comments to authors must be clear & constructive; (go back to original papers??)

Help/advice/training needs of CRG statisticians

- What training needs do you have?
- Should there be a mentoring process?
- Should we have exemplar reviews of reviews?
- Do we need a separate network of CRG statisticians, or is SMGlist enough?

How to give feedback to review authors

- How to be constructive
- What to do when there are disagreements in the process or advice is ignored

AOB