Assessing Heterogeneity Within a Study

This 5-item checklist is adapted from a framework developed by Kent et al.[1] to assess differences in the risk of the outcome of interest in clinical trial populations. This checklist prioritizes the analysis and reporting of multivariate risk-based difference in treatment effect. It is meant to assist in the interpretation and use of clinical trial data.

Checklist for Reporting on Subgroup Analyses & Heterogeneity in Treatment Effects[1]

Questions	Your Answers
1. Do the authors demonstrate variation in risk using a risk prediction model or index in (a) overall study population, and (b) separate treatment arms? • Reports how predicted risk (or risk score) varies (1) within the study population and (2) by treatment arm. • Displays variance of study population graphically (e.g., histograms or box & whiskers plots) or reports the mean, standard deviation, median and interquartile ranges.	☐ Yes ☐ No ☐ Can't evaluate ☐ Not applicable
2. Are primary subgroup analyses risk-stratified with relative and absolute risk reductions? • Risk prediction model is pre-specified (i.e., fully specified before any analysis of treatment-effect has begun) and preferably externally developed. • Reports both absolute and relative risk reductions.	☐ Yes ☐ No ☐ Can't evaluate ☐ Not applicable
3. Are additional primary subgroup analyses pre-specified and limited to patient attributes with strong a priori justification? • Justifies all primary subgroup analyses based upon strong pathophysiological or empirical evidence that such factors influence treatment effects.	☐ Yes ☐ No ☐ Can't evaluate ☐ Not applicable
4. Are secondary subgroup analyses reported separately from primary subgroup comparisons? • Clearly labels secondary subgroup analyses as exploratory (i.e., potentially useful for hypothesis generation and informing future research, but having little or no immediate relevance to patient care).	☐ Yes ☐ No ☐ Can't evaluate ☐ Not applicable
5. Do the authors (a) report all subgroup analyses conducted; (b) use appropriate statistical methods to test HTE (e.g., interaction terms); and (c) avoid over interpretation? • Limits comparisons to statistical significance of treatment heterogeneity *between* subgroups using interaction terms.	☐ Yes ☐ No ☐ Can't evaluate ☐ Not applicable

Adapted from: Kent et al. *Trials.* 2010;11:85.

1. Kent DM, Rothwell PM, Ioannidis JP, et al. Assessing and reporting heterogeneity in treatment effects in clinical trials: a proposal. *Trials.* 2010;11:85. PMID: 20704705. Available at: http://www.trialsjournal.com/content/11/1/85. Accessed on: 07/30/2012.