

Statistical Principles to Live By

FE Harrell

Avoid nondescriptive statistics
Avoid hypothesis testing esp. “exact” tests

Respect continuous variables

Defer classification to utility possessor
Avoid filtering of results

Avoid overfitting

Beware of extreme modeling flexibility

Make informed strategic choice

Comp. tool choice → good stat. prac.

Practice reproducible research

Document management

Know gains from nonparametric methods

Adjust estimates for mult. comparisons

Avoid change scores

Choose effect index wisely

Avoid/be honest re: multi-step procedure

Avoid underfitting

Pay for model uncertainty

Do simple things well

Use effective graphics

Knowledge management

biostat.mc.vanderbilt.edu → Author Checklist