**Resident Journal Club Worksheet**

1. **Background: Why is this topic relevant/important/interesting? *Bonus: start with a relevant clinical scenario.***
2. **What is the research question?**
3. **What are the study methods?**
   1. Study design (cross-sectional, cohort [retrospective or prospective], case-control, randomized controlled trial, quasi-experimental, etc.)
   2. Statistical tests used (1-2 major ones)
4. **Stats Teaching Topic (*see list below for some examples*)**
   1. CCC/faculty discussant can help you choose a topic
   2. For statistical help, please contact Sonya Heltshe (SCRI faculty member) *at least* 72 hours in advance: [sonya.heltshe@seattlechildrens.org](mailto:sonya.heltshe@seattlechildrens.org)
5. **What are the major results of this research?**
6. **What are the top 2-3 strengths of this research? What are the top 2-3 limitations?**
7. **What are 1-2 take home points? Consider answering some of these questions…**
   1. Do you agree with the authors’ conclusions?
   2. What additional studies would convince you of the authors’ conclusions?
   3. How might you have overcome some of the limitations if you were to re-design the study?
   4. Will you apply these results to your clinical care? How so?
   5. How do these results add to our current knowledge base?
   6. Do these results change how you think about the [research topic]?

**Common Statistical Concepts used in Pediatric Research:**

Each journal club will present one concept from below. These concepts are frequently presented in pediatric research and having a general sense of them will help readers better appraise the literature. The objective for this teaching exercise will be to make a 2 minute summary describing the key ideas and definitions from each concept. It could also include an example how it is applied to the current paper. The goal is that after this quick teaching, a resident would have a general sense of the definition(s), how to interpret results, and strengths and weaknesses (if relevant) for each concept. All questions are from: Windish, et al*. Medicine Residents’ Understanding of the Biostatistics and Results in the Medical Literature, JAMA, 2007: Vol 298, No. 9; pgs 1018-1022*.

1. Data Distribution
   1. Question 1
2. Descriptives (*mean, median, SD, IQR, CI, SEM*)
   1. Question 8,9
3. Biases, limitation of p value
   1. Question 5,6
4. Study Design
   1. Question 2,3
5. Comparative Tests: (*T-test, ANOVA, non-parametric, chi-square*)
   1. Question 4a-c
6. Measures of risk I (*odds ratio, relative risk)*
   1. Question 12, 14
7. Measures of risk II (*likelihood ratio, risk difference*)
   1. Needs Question
8. Logistic regression
   1. Needs Question
9. Multiple linear regression (*gen. concept and interpretation*)
   1. Question 13, Question 15
10. Sample size, NNT
    1. Question 10
11. Sensitivity/Specificity, PPV/NPV
    1. Question 11
12. Correlation
    1. Needs question