

Explanation of Statistics Rote Sheet

The clinical question content varies greatly from year to year. There may be 10-20 acute care questions; there may be 1 or 2. The quantity of statistics questions does not vary that much – there are always a lot of them.

If you know the Stats 75% sheet well you should do fine on the statistics questions. The first part (above the green line) of this study packet is all about what type of statistical analysis should be used for certain types of studies. This starts with knowing what type of data are being looked at. This was adapted from the Biostatistics packet of the Pharmacotherapy Prep Course. Review type of data – they become progressively more complex N-O-I-R. Think of it like Pinot Noir or however you want to remember it. Really, you just need to remember the first three (NOI), since I and R generally use the same statistical tests...so know NOI:

N: Nominal=no order (e.g. gender)

O: Ordinal=Order, but no consistent difference in magnitude change (e.g. Trauma Score)

I/R: Anything with consistent change in magnitude

Look to the tables of what type of test to use for a given type of data. The most common scenario encountered is one with two samples and no confounders. When this is the case, there is not much that you need to know. Refer to the table below.

Variable Type	2 samples (independent, parallel)
<u>Nominal</u> - No Confounders	X^2 or Fisher's Exact
<u>Ordinal</u> - No confounders	Wilcoxon rank sum or Mann Whitney U
<u>Continuous (I/R)</u> - No Confounders	Student's t-test

X^2 = Chi Square

Print this table and keep it with you when you study all sections. When any examples (not just questions) come up that talk about what type of data/test are being used then take a minute to think about it and take a look at the table. If you do this throughout studying then you will come to know N-O-I-R and corresponding tests very well. The parts in this table are the most common and therefore the most important to know. Once the basic (2 samples/no confounders) test types are learned well then it may be worth learning the test types for more than 2 samples and more than zero confounders.