Case Studies

# Chapter 19: Quantitative data analysis: Measures of clinical effectiveness

As health professionals, the case study students are unlikely to need to perform statistical calculations directly, but they know that it is important to understand how these are arrived at when analysing data.

Blessing is quite nervous about analysing data, in case she doesn’t spot something which could lead to a misleading or dangerous conclusion about using a certain treatment. She knows that statistics is about dealing with uncertainty and variation and that as long as she takes account of the *p*-value being under 5%, then she can be confident that results are statistically significant. However, she also realises that there is further analysis she needs to take to determine whether the data is clinically significant.

Blessing is looking at data where the relative risk is 1. The OR is also 1 and the confidence interval is 90%. She feels fairly confident that the data is reliable and valid on this basis, but wonders if she has missed something.

* What other factors would Blessing need to look at when analysing the data? Why?
* Describe the following levels of data:
* Nominal data
* Ordinal data
* Interval data
* Ratio
	+ If you have a *p*-value close to 0.05, can you reject the null hypothesis?