Do FPR and FWER depend on the prevalence of the disease?

Type your answer here, replacing this text.

Above, you were given one example of when the consequences of a False Negative is more severe than the consequences of a False Positive. Come up with one example of the opposite: when the consequences of a False Positive is more severe than the consequences of a False Negative.

Type your answer here, replacing this text.

Fix the `prevalence` of the disease at 0.05 (5%). Using the slider in the interactive plot above, try out different values for the multiplicative `factor_k`. What do you notice? How would you adjust your diagnosic procedure based on the value of `factor_k`? What combination of `factor_k` and α gives you the lowest possible loss, and why?

Type your answer here, replacing this text.

Fix `factor_k` at 50 (meaning that the negative consequence of a false negative are 50 times larger than the negative consequences of a false positive). Using the slider in the interactive plot above, try out different values for the true prevalence of the disease. What do you notice? How would you adjust your diagnostic procedure based on the prevalence of the disease? What combination of prevalence and α gives you the lowest possible loss, and why?

Type your answer here, replacing this text.

0.0.1 2c. Loss and Risk

Is the quantity you computed above a frequentist risk, a Bayesian posterior risk, or neither? Explain why in two sentences or less.

Type your answer here, replacing this text.