

# Blood Sample

*Antimicrobial Resistance*

24 October 2015

## Summary

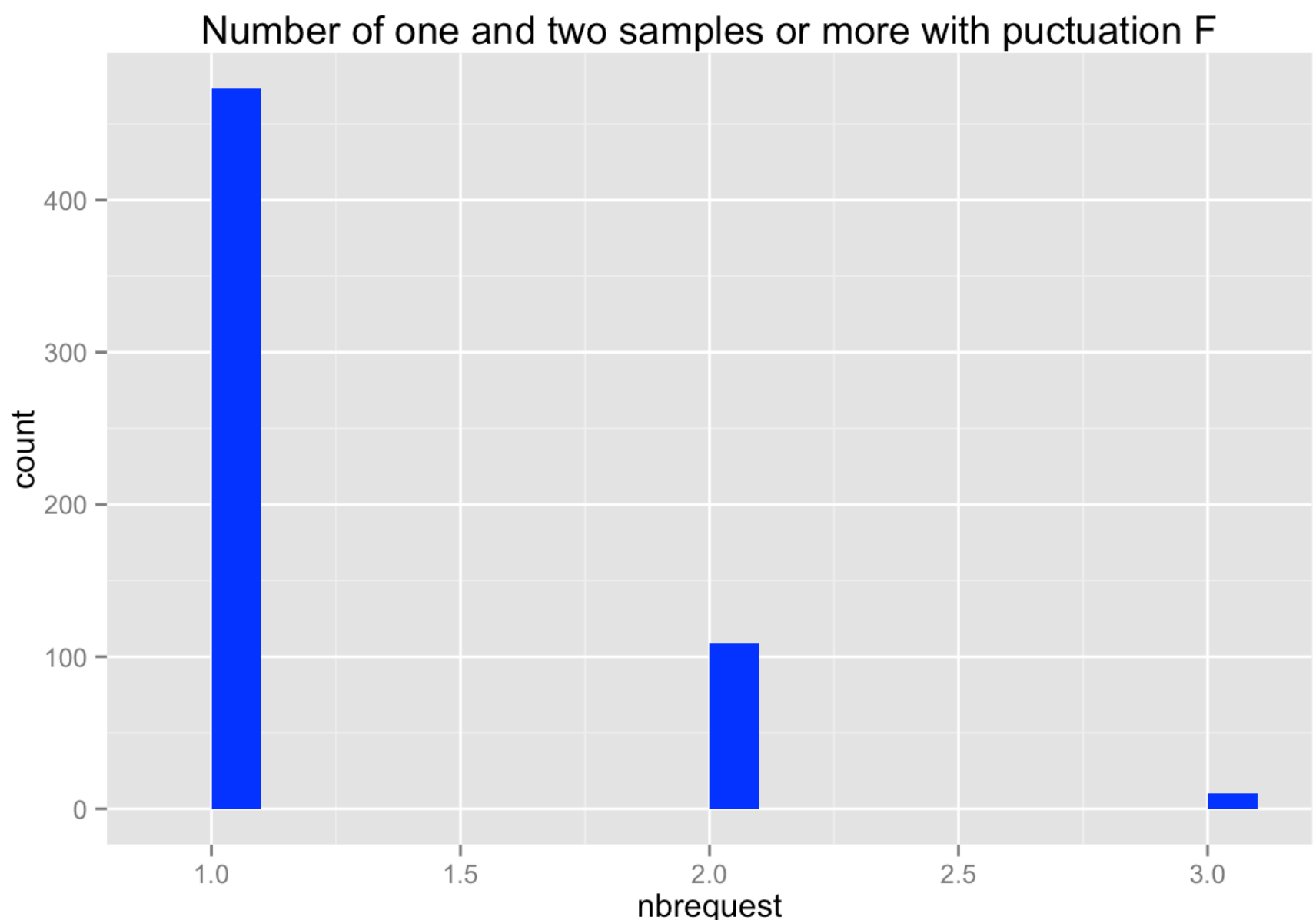
First exploration of the one two blood samples.

## Number sample

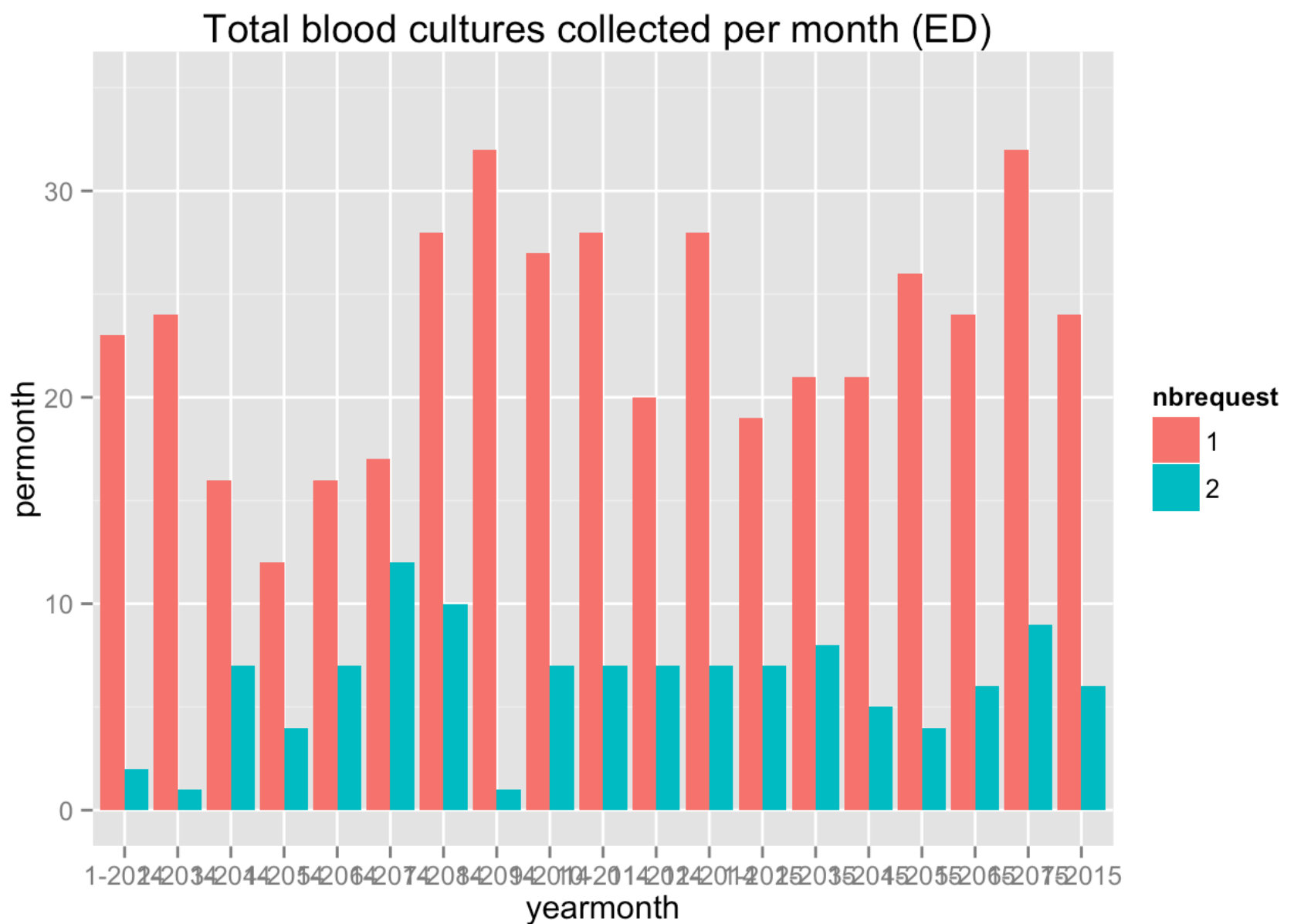
The samples distribution looks as follow. For this graphic we use:

1. The Ward refrence (*cc\_order*) 11 and 12
2. The panel **BS1**
3. And then the rule: Number of requests for the same day per patient with positive or negative result (*punctuation = F or alpha is backslash*)

A 2 blood sample increases the power of positive predictive by up to 20%. *\_(references to be added)*. In the current sample made for 2014 20.1013514 % of the patients had two blood samples done (for patients in emergency ward).



# The monthly variations

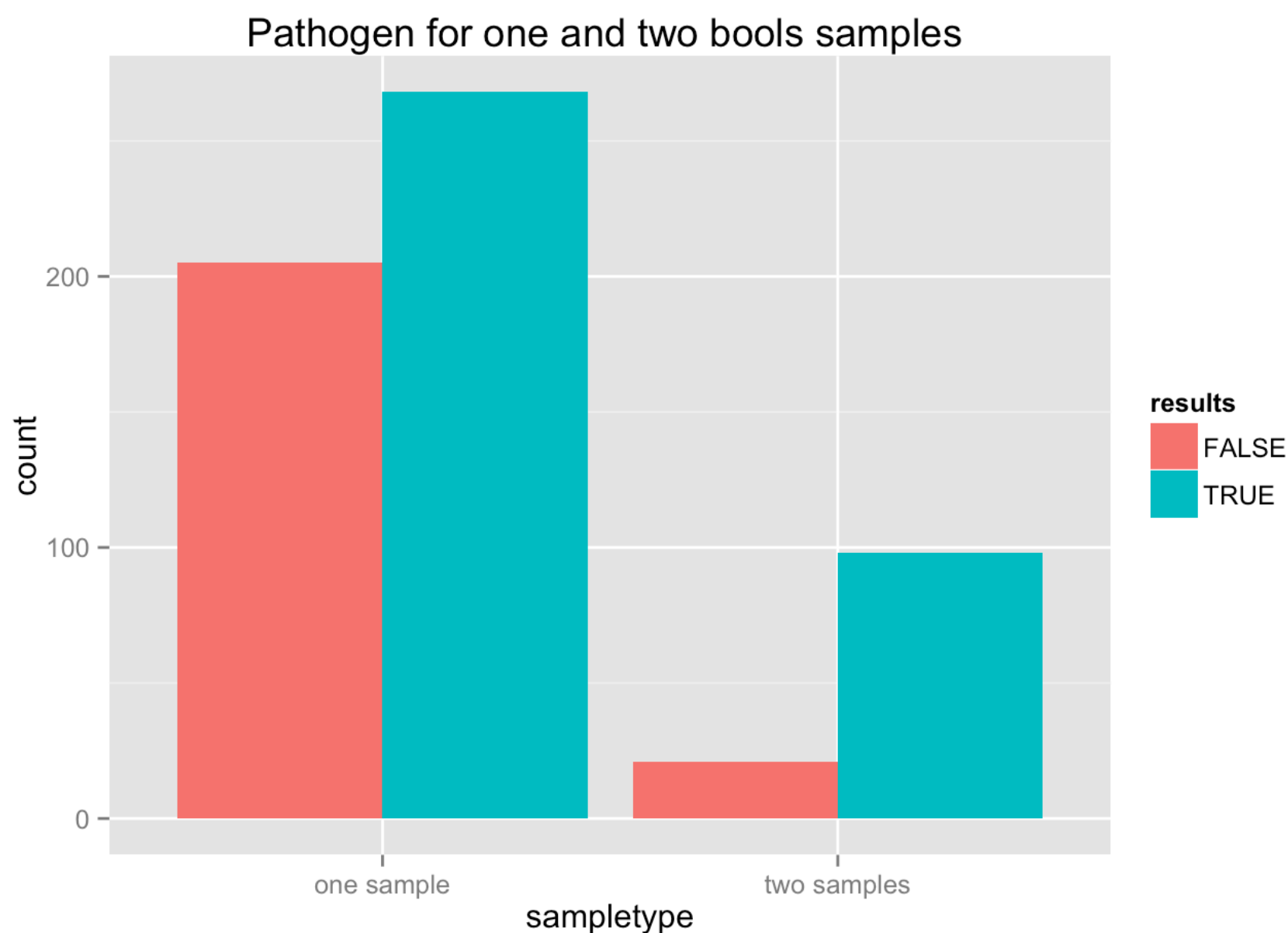


## What happens with multiple samples?

First it seems we have a very low number of blood sampe on the sub data set about 770 with the query `(dataset[dataset$panel == "BS1" & (dataset$cc_order == 11 | dataset$cc_order == 12) & dataset$item == "Bs" & ( dataset$alpha == "\" | dataset$punctuation == "F"),])`, where as we have more than half million records. Anyway for the moment we leave this on hold.

In the following graphic it is obvious that the two samples with a population of 700, is more ablre to find pathogens, one should be careful that even if the contact is simalar emergancy in same hospital the pathology of the patient could be different and we do not know this distribution.

```
## Problem alpha not found please check alpha table : ZZSTMN
## Problem alpha not found please check alpha table : T1122E
## Problem alpha not found please check alpha table : T6660
## Problem alpha not found please check alpha table : T2244N
## Problem alpha not found please check alpha table : T6660
## Problem alpha not found please check alpha table : T7739
## Problem alpha not found please check alpha table : T2297
## Problem alpha not found please check alpha table : T7739
## Problem alpha not found please check alpha table : T1122E
## Problem alpha not found please check alpha table : T1122E
## Problem alpha not found please check alpha table : T2244N
## Problem alpha not found please check alpha table : T1122N
## Problem alpha not found please check alpha table : T2244N
## Problem alpha not found please check alpha table : T1122N
## Problem alpha not found please check alpha table : T1122N
```



## The effect

The hypothesis is that we could have better yield in term of pathogenes in two samples than one.