

**Supplementary Table 1. Variables related with the screening protocol**

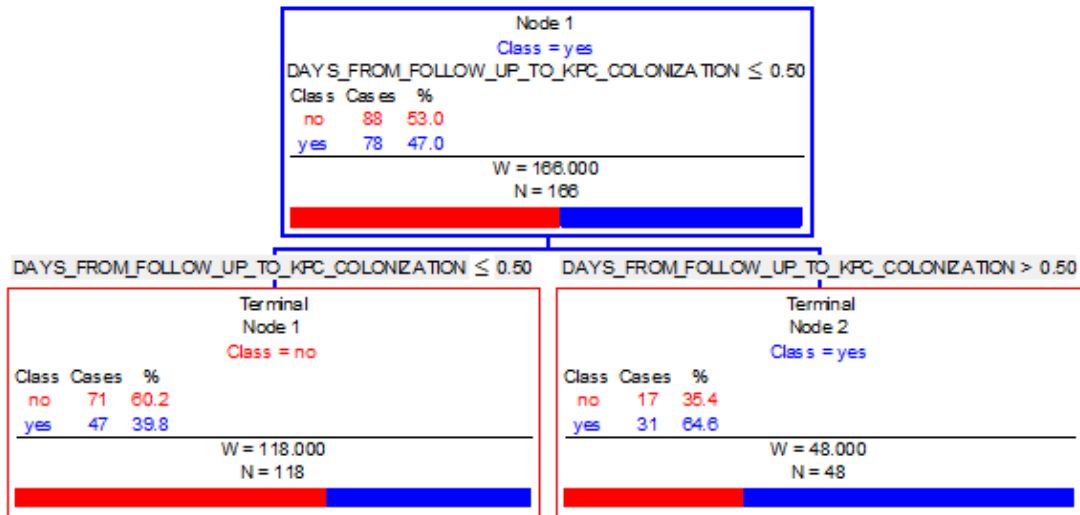
Variable	
Distribution of swabs per patient, median (IQR).	5.00 (3.00-7.00)
Distribution of time (days)-from-hospitalization to first swabbing, median (IQR).	2.00 (1.00-6.00)
Distribution of number of negative swabs before a positive swab in the patients who become colonized on follow-up, median (IQR).	2.00 (1.00-2.00)

**Supplementary Table 2. Distribution of infection types in the two colonization groups.**

Type of KPC-Kp infection	Colonized at start of follow-up (n=47)	Colonized during follow-up (n=31)
Bacteraemia	18 (38,3)	13 (42,0)
Pneumonia	11 (23,4)	8 (25,8)
Urinary tract infection	10 (21,2)	2 (6,4)
Abdominal	3 (6,4)	5 (16,1)
Others	5 (10,6)	3 (9,7)

Data presented as number of patients (percentage). Chi-squared test p=0.34

**Supplementary Figure S1. CART analysis dichotomizing the variable time to colonization and risk of KPC-Kp infection.**

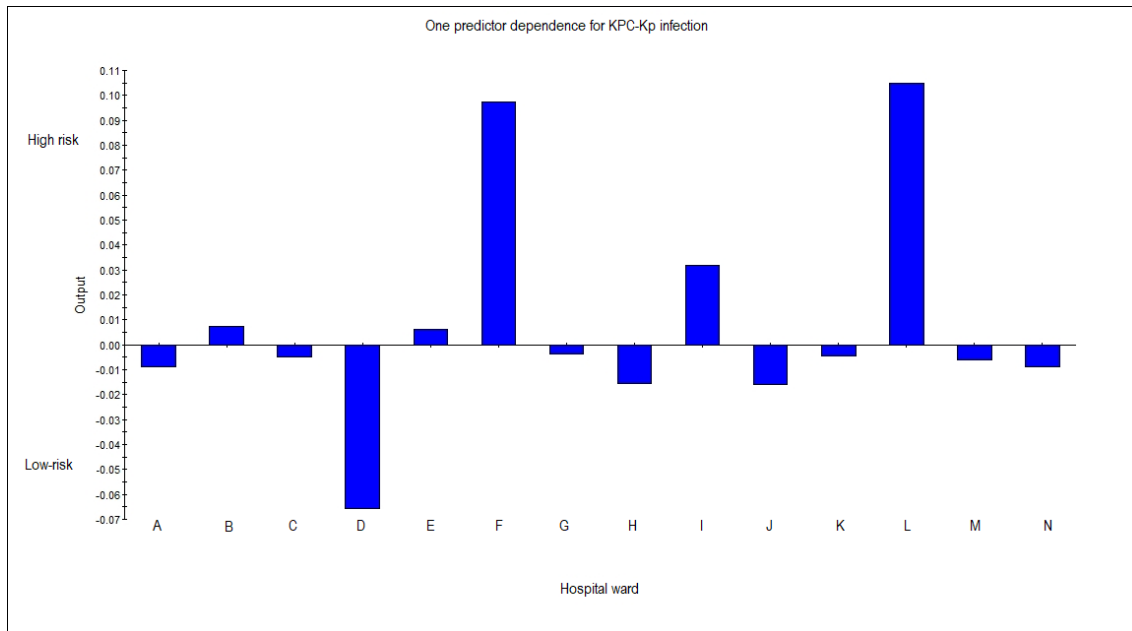


The CART analysis categorizes the continuous variable time to colonization (in days) into a two-category variable: patients who were colonized at day 0 (colonized at start of follow-up) and patients colonized during follow-up (time from the first negative swab to the first rectal swab positive for KPC-Kp > 0 days).

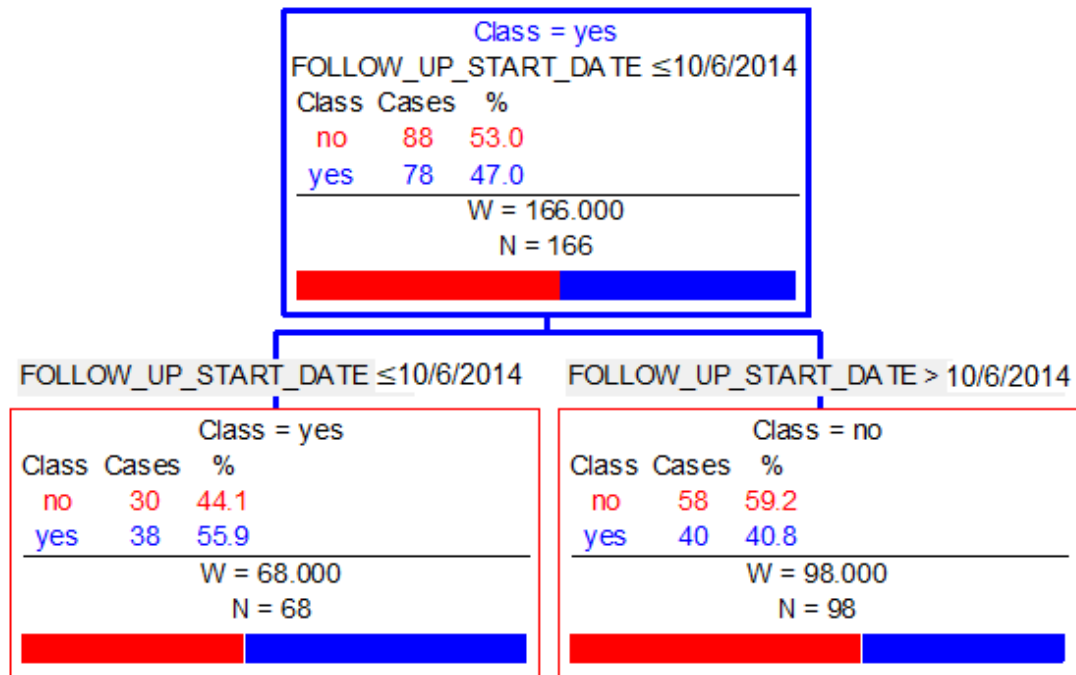
**No = No KPC-Kp infection**

**Yes = KPC-Kp infection**

**Supplementary Figure S2. KPC-Kp infection risk classification by hospital ward using TreeNet (high vs. low risk).**



**Supplementary Figure S3. CART analysis to categorize risk of KPC-Kp infection in different patient follow-up periods.**



**No = No KPC-Kp infection**

**Yes = KPC-Kp infection**