

Figure C1: MeroRisk calculator predicted risk of target non-attainment for critically ill patients (n = 155) and alphabetically ordered pathogens from *Acinetobacter baumannii* to *Burkholderia cepacia*. The risk of target non-attainment (drug concentration being above the minimum inhibitory concentration (MIC) for 100% of the time) was assessed using EUCAST MIC distributions of the investigated pathogens and cumulative fraction of response analysis. Points: risk predictions for patients with creatinine clearance calculated using Cockcroft-Gault equation (CLCRG)  $\geq 50$  mL/min. X: risk predictions for patients with CLCRG < 50 mL/min. Green shade: Risk predictions  $\leq 10\%$ , Orange shade: Risk predictions > 10% to  $\leq 50\%$ , Red shade: Risk predictions > 50%,



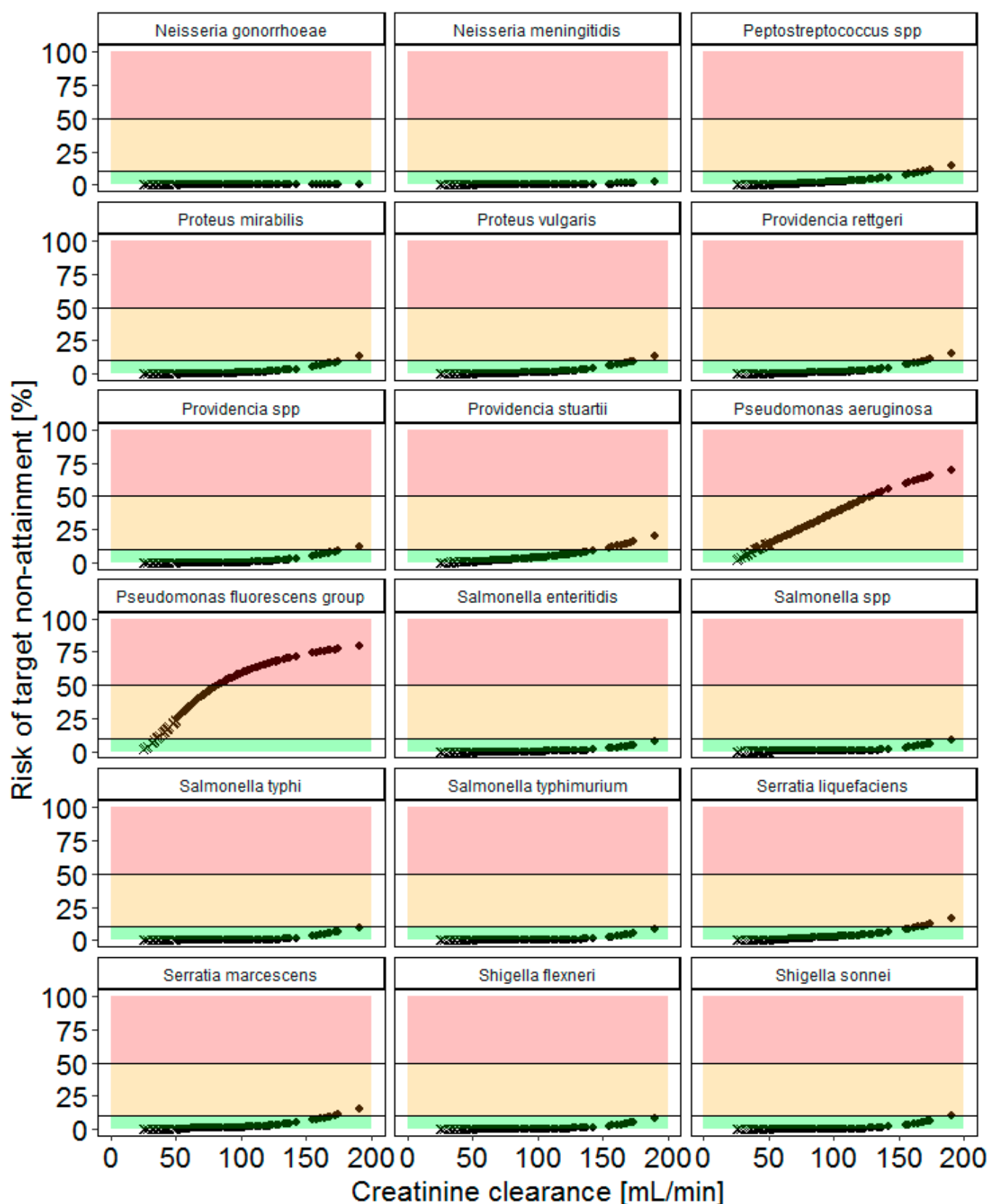


Figure C3: MeroRisk calculator predicted risk of target non-attainment for critically ill patients (n = 155) and alphabetically ordered pathogens from *Neisseria gonorrhoeae* to *Shigella sonnei*. The risk of target non-attainment (drug concentration being above the minimum inhibitory concentration (MIC) for 100% of the time) was assessed using EUCAST MIC distributions of the investigated pathogens and cumulative fraction of response analysis. Points: risk predictions for patients with creatinine clearance calculated using Cockcroft-Gault equation (CLCRG)  $\geq$  50 mL/min. X: risk predictions for patients with CLCRG < 50 mL/min. Green shade: Risk predictions  $\leq$  10%, Orange shade: Risk predictions > 10% to  $\leq$  50%, Red shade: Risk predictions > 50%.

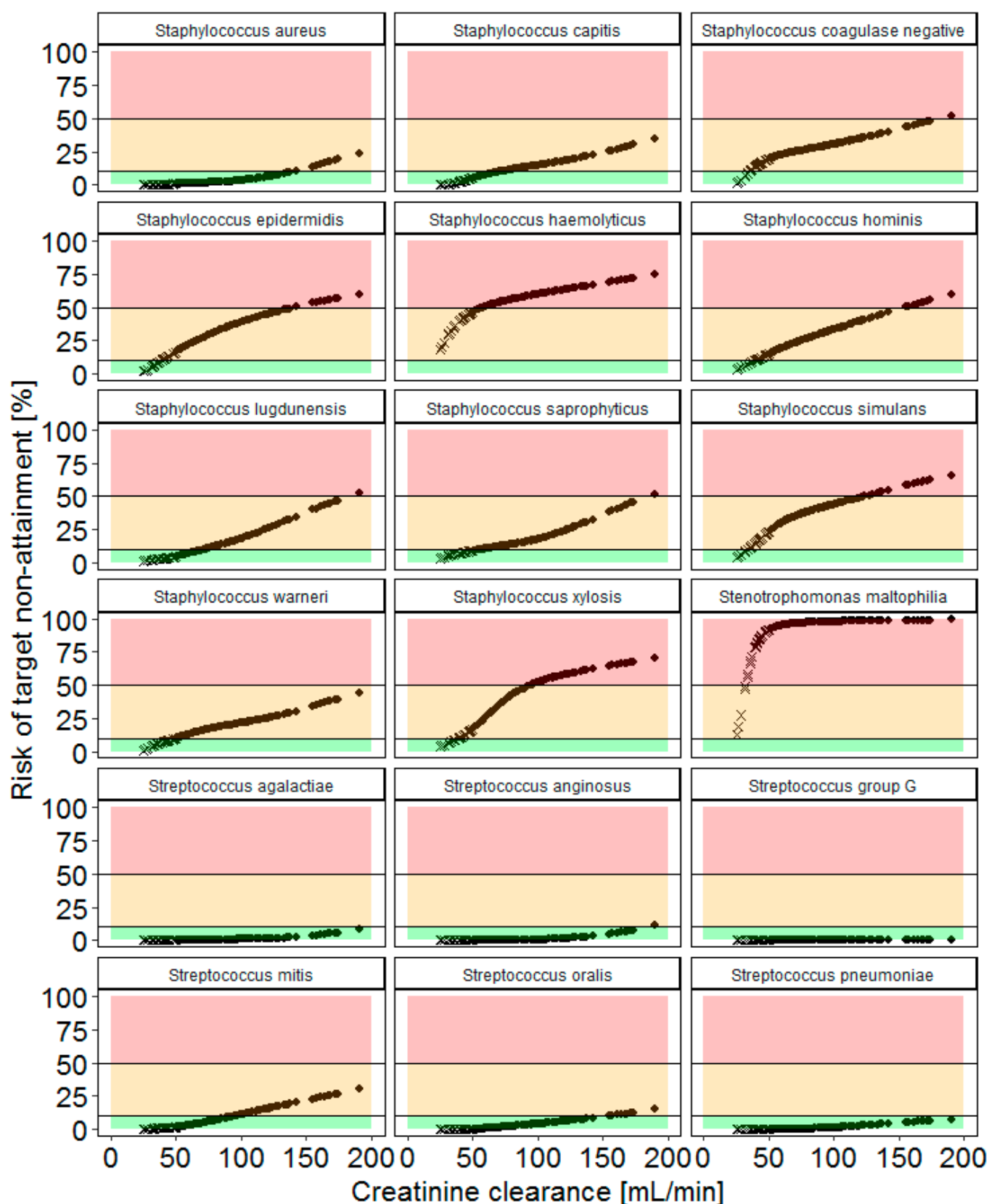
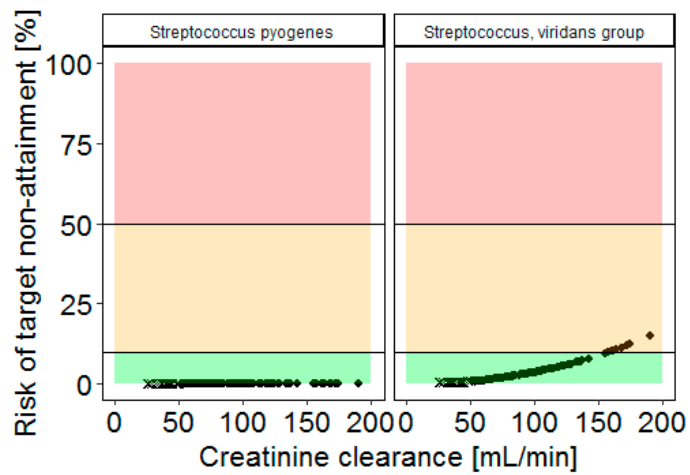


Figure C4: MeroRisk calculator predicted risk of target non-attainment for critically ill patents (n = 155) and alphabetically ordered pathogens from *Staphylococcus aureus* to *Streptococcus pneumoniae*. The risk of target non-attainment (drug concentration being above the minimum inhibitory concentration (MIC) for 100% of the time) was assessed using EUCAST MIC distributions of the investigated pathogens and cumulative fraction of response analysis. Points: risk predictions for patients with creatinine clearance calculated using Cockcroft-Gault equation (CLCRG)  $\geq 50$  mL/min. X: risk predictions for patients with CLCRG  $< 50$  mL/min. Green shade: Risk predictions  $\leq 10\%$ , Orange shade: Risk predictions  $> 10\%$  to  $\leq 50\%$ , Red shade: Risk predictions  $> 50\%$ ,



**Figure C5: MeroRisk calculator predicted risk of target non-attainment for critically ill patients (n = 155) and *Streptococcus pyogenes* or *Streptococcus viridans* group.** The risk of target non-attainment (drug concentration being above the minimum inhibitory concentration (MIC) for 100% of the time) was assessed using EUCAST MIC distributions of the investigated pathogens and cumulative fraction of response analysis. *Points*: risk predictions for patients with creatinine clearance calculated using Cockcroft-Gault equation (CLCRG)  $\geq 50$  mL/min. *X*: risk predictions for patients with CLCRG < 50 mL/min. *Green shade*: Risk predictions  $\leq 10\%$ , *Orange shade*: Risk predictions > 10% to  $\leq 50\%$ , *Red shade*: Risk predictions > 50%,