

## Supplementary Appendix

**Supplementary Figure 1. Illustration of patients included into current study.** Each line corresponds to one individual. The presence of HAI is determined only at the day of PPS. By excluding patients that are admitted more than 30 days after PPS (i.e. patient 6 – 9), we minimise the probability of including patients that develop a HAI after the PPS (patient 7 and patient 9), as well as patients that had mortality that is not related to the HAI episode (patient 8). However, there is still a possibility of including patients who develop a HAI after the PPS but is inadvertently classified as having no HAI based on the PPS findings (patient 5) (i.e. classification bias), which can result in an underestimation of the excess length of stay associated with HAIs.

