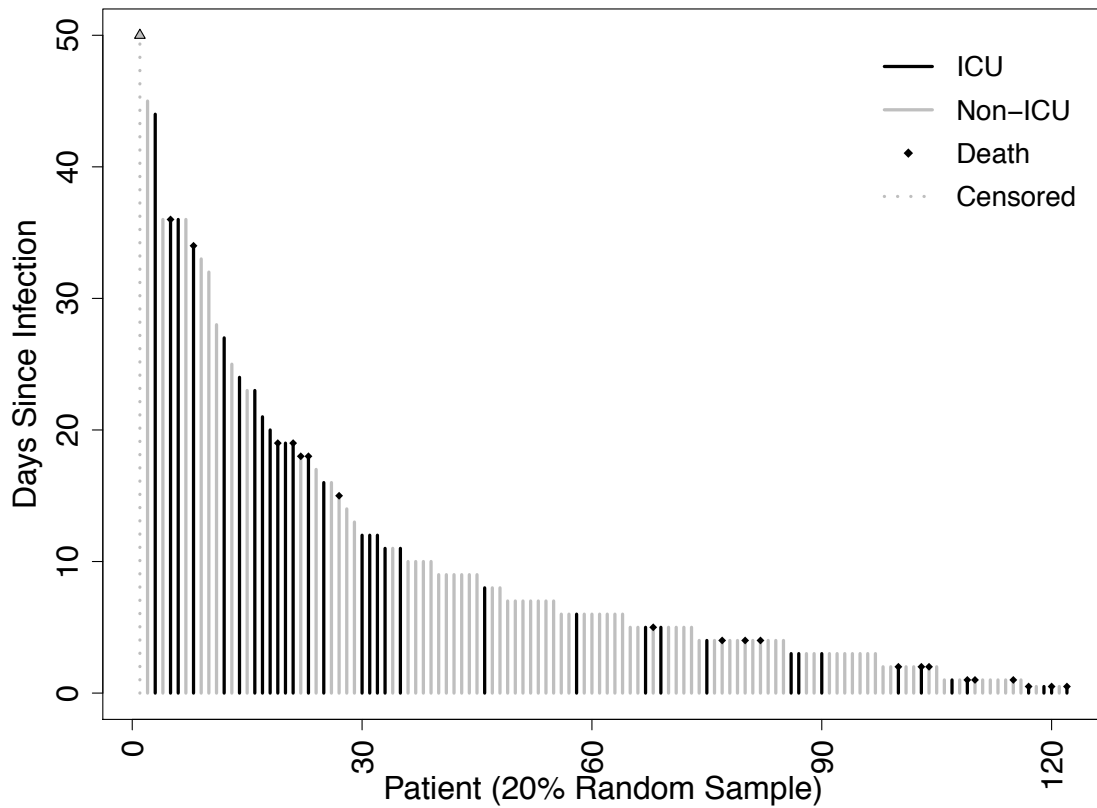


eFigure 1. Density estimates of the distribution of patient age in ICU and non-ICU patients within a cohort of 609 incident *Clostridium difficile* Infection cases within the Duke Infection Control Outreach Network hospital network, Southeastern USA, 2009-2010. Note that the minimum age of eligibility for the cohort was 18 years of age. Any increase in the distribution prior to that point is due to smoothing.



eFigure 2. Diagram of survival times and outcomes for a 20% random sample of a cohort of 609 incident *Clostridium difficile* Infection cases within the Duke Infection Control Outreach Network hospital network, Southeastern USA, 2009-2010. Dark lines indicate ICU cases, while lighter grey lines indicate non-ICU cases. Dotted lines cases with unknown outcome times, treated as censored from $t = 0.5$ to $t = 180$ days. Lines terminating in diamonds indicate patients that died.

Supplemental Table 1. Difference in Estimates from Multiple-Imputation versus Complete Cases Analysis for Time Until Death, Release, and Mixing Odds Ratio Comparing ICU patients to non-ICU Patients From a Cohort of 609 Incident *Clostridium difficile* Infection Cases Within the DICON Hospital Network, Southeastern USA, 2009-2010.

Model	RT _D	95% CI	RT _N	95% CI	π_1	π_0	OR _{π}	95% CI
Complete Case*	1.27	0.59, 2.74	2.03	1.36, 3.05	0.25	0.10	2.94	1.18, 7.33
Multiple Imputation*	1.97	0.96, 4.01	1.88	1.40, 2.51	0.28	0.10	3.38	1.84, 6.19

Abbreviations: RT_D, ratio of median survival times until death; RT_N, ratio of median survival times until release; R _{π} , odds ratio of mixing proportions in the ICU and non-ICU patient population; CI, confidence interval; DICON, Duke Infection Control Outreach Network; CDI, *C. difficile* infection.

*Adjusted for patient's age, gender and race, location prior to admission, whether or not patient was a surgical patient or on dialysis, and if this was a new CDI episode.