|  |  |  |  |
| --- | --- | --- | --- |
|   | **CSH** | **95% CI** | **p** |
| **First model applied to the first episode of transfusion**  |
| Male gender | 1.28 | 0.95-1.71 | 0.10 |
| Admission SAPS2 (per 10 point) | 1.08 | 1-1.16 | 0.05 |
| Immunodepression status | 1.03 | 0.76-1.38 | 0.85 |
| Lung primary infection  | 1.67 | 1.23-2.26 | < 0.001 |
| Exposure to invasive devices\* |  |  |  |
|  Mechanical ventilation | 1.49 | 0.96-2.34 | 0.08 |
|  Central venous catheter | 1.22 | 0.75-1.98 | 0.42 |
|  Dialysis catheter | 1.17 | 0.82-1.66 | 0.39 |
|  Arterial catheter | 0.83 | 0.53-1.29 | 0.41 |
|  Urinary catheter | 1.09 | 0.70-1.69 | 0.69 |
| Any transfusion\* |  |  |  |
|  Red blood cell  | 0.71 | 0.51-0.99 | 0.04 |
|  Platelet  | 1.75 | 1.20-2.55 | 0.004 |
|  Fresh frozen plasma  | 1.51 | 1.06-2.14 | 0.02 |
|  |  |  |  |
| **Second model applied to amounts of blood products** |
| Male gender | 1.28 | 0.96-1.73 | 0.09 |
| Admission SAPS2 (per 10 point) | 1.06 | 0.98-1.15 | 0.11 |
| Immunodepression status | 1.11 | 0.83-1.49 | 0.48 |
| Lung primary infection  | 1.59 | 1.17-2.15 | 0.003 |
| Exposure to invasive devices\* |  |  |  |
|  Mechanical ventilation | 1.54 | 0.97-2.43 | 0.06 |
|  Central venous catheter | 1.16 | 0.71-1.89 | 0.56 |
|  Dialysis catheter | 1.26 | 0.90-1.76 | 0.18 |
|  Arterial catheter | 0.88 | 0.56-1.38 | 0.58 |
|  Urinary catheter | 1.06 | 0.97-2.43 | 0.80 |
| Any transfusion\* |  |  |  |
|  Red blood cell  | 1.01 | 0.95-1.07 | 0.75 |
|  Platelet  | 1.02 | 0.95-1.09 | 0.62 |
|  Fresh frozen plasma  | 1.03 | 0.95-1.07 | 0.15 |

**Supplemental table 2: Determinants of microbiologically documented ICU-acquired infections: cause-specific Cox regression multivariate analysis**

After exclusion of 38 patients with non-microbiologically documented ICU-acquired infections, this sensitivity analysis comprised 855 patients, 640 without ICU-acquired infections and 215 with microbiologically documented ICU-acquired infections.

\*Exposures to invasive mechanical ventilation, central venous catheter, arterial catheter, dialysis catheter, urinary catheter and transfusions of blood products were considered as time-dependent covariates.

Abbreviations: CSH, cause-specific hazard ratio; 95%CI, 95% confidence interval; ICU-AI, intensive care unit-acquired infections; SAPS2 Simplified Acute Physiology Score 2