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|  |  |  |  |
|  | **Hazard Ratio** | **95% CI** | **p-value** |
|  |  |  |  |
| *Age (a)* | 0.99 | 0.99-1.03 | 0.46 |
| *Male* | 1.05 | 0.90-1.23 | 0.51 |
| *Body mass index (kg/m2)* | 1.04 | 1.03-1.05 | <0.001 |
| *ASA physical status* ≥ *2* | 1.42 | 1.07-1.88 | 0.01 |
| *Diabetes* | 0.97 | 0.80-1.19 | 0.79 |
| *Multiple skin puncture* | 1.02 | 0.79-1.32 | 0.89 |
| *Other departments* | 1 |  |  |
| *Traumatology and Orthopedics* | 0.89 | 0.65-1.23 | 0.49 |
| *Peripheral catheters* |  |  |  |
| *Sciatic nerve* | 1 |  |  |
| *Interscalene* | 1.39 | 1.10-1.77 | 0.007 |
| *Infraclavicular* | 1.12 | 0.72-1.73 | 0.61 |
| *Axillary* | 0.49 | 0.23-1.06 | 0.70 |
| *Femoral* | 1.52 | 1.25-1.85 | <0.001 |
| *Psoas catheters* | 0.39 | 0.25-0.63 | <0.001 |
| *Others* | 1.73 | 0.83-3.64 | 0.15 |
| *Year of surgery* |  |  |  |
| *2014* | 1 |  |  |
| *2013* | 2.54 | 1.23-5.32 | 0.01 |
| *2012* | 3.49 | 1.66-7.30 | 0.01 |
| *2011* | 4.98 | 2.37-10.5 | <0.001 |
| *2010* | 5.54 | 2.67-11.5 | <0.001 |
| *2009* | 4.32 | 2.05-9.12 | <0.001 |
| *2008* | 4.48 | 2.13-9.42 | <0.001 |
| *2007* | 23.8 | 9.20-61.6 | <0.001 |
| *Hospital center* |  |  |  |
| *Hospital 1* | 1 |  |  |
| *Hospital 2* | 1.48 | 0.32-6.76 | 0.62 |
| *Hospital 3* | 0.98 | 0.72-1.28 | 0.90 |
| *Hospital 4* | 0.22 | 0.03-1.63 | 0.14 |
| *Hospital 5* | 0.26 | 0.17-0.40 | <0.001 |
| *Hospital 6* | 0.44 | 0.25-0.78 | 0.005 |
| *Hospital 7* | 0.33 | 0.08-1.39 | 0.13 |
| *Hospital 8* | 0.11 | 0.06-0.17 | <0.001 |
| *Hospital 9* | 0.58 | 0.28-1.24 | 0.16 |
| *Hospital 10* | 0.45 | 0.33-0.61 | <0.001 |
| *Hospital 11* | 0.71 | 0.49-1.03 | 0.07 |
| *Hospital 12* | 0.41 | 0.12-1.36 | 0.14 |
| *Hospital 13* | 0.91 | 0.51-1.62 | 0.75 |
| *Hospital 14* | 0.21 | 0.03-1.51 | 0.12 |
| *Hospital 15* | 0.26 | 0.14-0.49 | <0.001 |
| *Hospital 16* | 1.75 | 0.22-14.2 | 0.60 |
| *Hospital 17* | 0.96 | 0.70-1.38 | 0.87 |
| *Hospital 18* | 0.29 | 0.07-1.26 | 0.10 |
| *Hospital 19* | 1.10 | 0.66-1.84 | 0.74 |
| *Hospital 20* | 0.38 | 0.23-0.64 | <0.001 |
| *Hospital 21* | 1.01 | 0.68-1.40 | 0.92 |
| *Hospital 22* | 1.51 | 0.18-12.6 | 0.70 |

Supplemental Digital Content 1 A: Covariates for the Cox regression model of Figure 3 for peripheral catheter use up to 15 days and the relative frequency of infection-free catheter use. Data are shown as Hazard Ratio with 95% confidence interval (CI). There was no correlation >0.3 and ≤-0.3 between the covariates. The -2 log likelihood of final covariate model was 11102.63. The Omnibus-test showed a p-value from likelihood ratio test statistics of p<0.001. The underlying study population had a complete set of covariates. Age and body mass index were included as continuous variables, all other as categorical variables. Peripheral catheter was included as categorical dummy coded variable, with 6 dummy variables compared to sciatic nerve. Year of surgery was included as categorical dummy coded variable, with 7 dummy variables compared to the year 2014. Hospital centers were included as categorical dummy coded variables, with 21 dummy variables compared to hospital 1. ASA: American Society of Anesthesiologists physical status.

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|  |  |  |  |
|  | **Hazard Ratio** | **95% CI** | **p-value** |
|  |  |  |  |
| *Age (a)* | 0.99 | 0.98-0-99 | 0.001 |
| *Male* | 0.95 | 0.82-1.10 | 0.51 |
| *Body mass index (kg/m2)* | 0.99 | 0.98-1.01 | 0.67 |
| *ASA physical status* ≥ *2* | 1.80 | 1.26-2.57 | 0.001 |
| *Diabetes* | 1.06 | 0.80-1.19 | 0.56 |
| *Multiple skin puncture* | 1.08 | 0.93-1.26 | 0.33 |
| *General Surgery* | 1 |  |  |
| *Gynecology* | 1.91 | 1.28-2.84 | 0.001 |
| *Traumatology and Orthopedics* | 0.74 | 0.52-1.06 | 0.10 |
| *Urology* | 1.04 | 0.79-1.36 | 0.76 |
| *Other departments* | 1.21 | 0.92-1.59 | 0.18 |
| *Thoracic epidural* | 1 |  |  |
| *Lumbar epidural* | 1.35 | 0.99-1.85 | 0.06 |
| *Year of surgery* |  |  |  |
| *2014* | 1 |  |  |
| *2013* | 1.94 | 1.26-2.97 | 0.002 |
| *2012* | 1.64 | 1.06-2.54 | 0.03 |
| *2011* | 2.19 | 1.42-3.37 | <0.001 |
| *2010* | 2.26 | 1.46-3.51 | <0.001 |
| *2009* | 2.05 | 1.31-3.23 | 0.002 |
| *2008* | 2.17 | 1.37-3.43 | 0.001 |
| *2007* | 9.32 | 3.07-28.3 | <0.001 |
| *Hospital center* |  |  |  |
| *Hospital 1* | 1 |  |  |
| *Hospital 2* | 0.32 | 0.08-1.22 | 0.10 |
| *Hospital 3* | 0.90 | 0.60-1.42 | 0.87 |
| *Hospital 4* | 0.42 | 0.28-0.63 | <0.001 |
| *Hospital 5* | 0.28 | 0.16-0.47 | <0.001 |
| *Hospital 6* | 0.69 | 0.51-0.96 | 0.03 |
| *Hospital 7* | 0.70 | 0.28-1.77 | 0.45 |
| *Hospital 8* | 0.08 | 0.03-0.21 | <0.001 |
| *Hospital 9* | 2.30 | 1.36-3.87 | 0.002 |
| *Hospital 10* | 8.77 | 1.17-65.6 | 0.03 |
| *Hospital 11* | 0.33 | 0.21-0.51 | <0.001 |
| *Hospital 12* | 3.40 | 1.48-7.83 | 0.004 |
| *Hospital 13* | 3.05 | 2.30-4.05 | <0.001 |
| *Hospital 14* | 0.78 | 0.11-5.60 | 0.81 |
| *Hospital 15* | 0.47 | 0.32-0.69 | <0.001 |
| *Hospital 17* | 0.95 | 0.13-6.91 | 0.96 |
| *Hospital 19* | 0.91 | 0.60-1.37 | 0.65 |
| *Hospital 20* | 1.80 | 0.78-4.18 | 0.17 |
| *Hospital 22* | 0.92 | 0.68-1.35 | 0.89 |

Supplemental Digital Content 1 B: Covariates for the Cox regression model of Figure 3 for epidural catheter use up to 15 days and the relative frequency of infection-free catheter use. Data are shown as Hazard Ratio with 95% confidence interval (CI). There was no correlation >0.3 and ≤-0.3 between the covariates. The -2 log likelihood of final covariate model was 13322.95. The Omnibus-test showed a p-value from likelihood ratio test statistics of p<0.001. The underlying study population had a complete set of covariates. Age and body mass index were included as continuous variables, all other as categorical variables. Surgical specialties were included as categorical dummy coded variable, with 4 dummy variables compared to general surgery. Year of surgery was included as categorical dummy coded variable, with 7 dummy variables compared to the year 2014. Hospital centers were included as categorical dummy coded variables, with 18 dummy variables compared to hospital 1. ASA: American Society of Anesthesiologists physical status.