### Table 3. Multivariate analyses for surgical site complications by total knee arthroplasty

| Patient variables                        | B (SE)      | OR (CI)      |
|------------------------------------------|-------------|--------------|
| Resident as primary surgeon              | 0.13 (0.15) | 1.1 (0.9–1.5) |
| Age (years)                              | −0.35 (0.01) | 1.0 (1.0–1.0) |
| BMI                                      | −0.02 (0.02) | 1.0 (1.0–1.0) |
| Duration of surgery (minutes)            | 0.00 (0.00)  | 1.0 (1.0–1.0) |
| Female sex                               | −0.10 (0.15) | 0.9 (0.7–1.2) |
| Diabetes mellitus (no = reference)       | 0.03 (0.19)  | 1.0 (0.7–1.5) |
| ASA score II (ASA I = reference)         | 0.40 (0.20)  | 1.5 (1.0–2.2) |
| ASA III/IV (ASA I = reference)           | 0.56 (0.27)  | 1.8 (1.0–3.0) |
| Smoking (no = reference)                 | 0.12 (0.20)  | 1.1 (0.8–1.7) |
| Regional anesthesia (general = reference)| −0.21 (0.15) | 0.8 (0.6–1.1) |

- **a** B (SE): unstandardized regression weight with standard error.
- **b** OR (CI): odds ratio with 95% confidence interval.

R² = 0.03 (Nagelkerke). Model $\chi^2(10) = 31$, p = 0.001.

### Table 4. Multivariate analyses for systemic complications by total knee arthroplasty

| Patient variables                        | B (SE)      | OR (CI)      |
|------------------------------------------|-------------|--------------|
| Resident as primary surgeon              | 0.27 (0.16) | 1.3 (1.0–1.8) |
| Age (years)                              | 0.07 (0.01) | 1.1 (1.1–1.1) |
| BMI                                      | 0.01 (0.02) | 1.0 (1.0–1.1) |
| Duration of surgery (minutes)            | 0.00 (0.00) | 1.0 (1.0–1.0) |
| Female sex                               | −0.32 (0.16) | 0.7 (0.5–1.0) |
| Diabetes mellitus (no = reference)       | 0.41 (0.18)  | 1.5 (1.1–2.1) |
| ASA score II (ASA I = reference)         | 0.31 (0.24)  | 1.4 (0.9–2.2) |
| ASA score III/IV (ASA I = reference)     | 0.83 (0.28)  | 2.3 (1.3–4.0) |
| Smoking (no = reference)                 | 0.07 (0.25)  | 1.1 (0.7–1.7) |
| Regional anesthesia (general = reference)| −0.19 (0.16) | 0.8 (0.6–1.1) |

- **a** B (SE): unstandardized regression weight with standard error.
- **b** OR (CI): odds ratio with 95% confidence interval.

R² = 0.09 (Nagelkerke). Model $\chi^2(10) = 102$, p < 0.001.
### Table 6. Multivariate analyses for surgical site complications by total hip arthroplasty

| Patient variables                  | B (SE) a   | OR (CI) b  |
|-----------------------------------|------------|------------|
| Resident as primary surgeon       | -0.16 (0.16) | 0.9 (0.6–1.2) |
| Age (year)                        | 0.00 (0.01)  | 1.0 (1.0–1.0)  |
| BMI                               | 0.01 (0.02)  | 1.0 (1.0–1.0)  |
| Duration of surgery (min)         | 0.01 (0.00)  | 1.0 (1.0–1.0)  |
| Female sex                        | -0.03 (0.14) | 0.9 (0.7–0.1)  |
| Diabetes mellitus (no = reference)| 0.29 (0.21)  | 1.3 (0.9–2.0)  |
| ASA score II (ASA I = reference)  | -0.04 (0.18) | 1.0 (0.7–1.4)  |
| ASA score III/IV (ASA I = reference)| 0.47 (0.24) | 1.6 (1.0–2.6)  |
| Smoking (no = reference)          | -0.11 (0.19) | 0.9 (0.6–1.3)  |
| Regional anesthesia (general = reference)| 0.01 (0.16) | 1.0 (0.7–1.4)  |
| Diagnosis osteoarthritis (other = reference)| 0.36 (0.21) | 1.4 (0.9–2.2)  |

a B (SE): unstandardized regression weight with standard error.
b OR (CI): odds ratio with 95% confidence interval.
R² = 0.02 (Nagelkerke). Model χ²(11) = 22, p = 0.03.

### Table 7. Multivariate analyses for systemic complications by total hip arthroplasty

| Patient variables                  | B (SE) a   | OR (CI) b  |
|-----------------------------------|------------|------------|
| Resident as primary surgeon       | 0.09 (0.14)  | 1.1 (0.8–1.5)  |
| Age (year)                        | 0.05 (0.01)  | 1.1 (1.0–1.1)  |
| BMI                               | -0.02 (0.02) | 1.0 (1.0–1.0)  |
| Duration of surgery (min)         | 0.00 (0.00)  | 1.0 (1.0–1.0)  |
| Female sex                        | -0.35 (0.14) | 0.7 (0.5–0.9)  |
| Diabetes mellitus (no = reference)| 0.05 (0.21)  | 1.1 (0.7–1.6)  |
| ASA II score (ASA I = reference)  | 0.45 (0.22)  | 1.6 (1.0–2.4)  |
| ASA score III/IV (ASA I = reference)| 1.40 (0.26) | 4.1 (2.5–6.7)  |
| Smoking (no = reference)          | 0.41 (0.18)  | 1.5 (1.1–2.1)  |
| Regional anesthesia (general = reference)| -0.11 (0.15) | 0.9 (0.7–1.2)  |
| Diagnosis osteoarthritis (other = reference)| 0.16 (0.23) | 1.2 (0.8–1.8)  |

a B (SE): unstandardized regression weight with standard error.
b OR (CI): odds ratio with 95% confidence interval.
R² = 0.11 (Nagelkerke). Model χ²(11) = 153, p < 0.001.