**Appendix 10.** Logistic LASSO before-surgery full models’ calibration tables

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| --- |
| SF-36 PCS |
| Lower bound | Upper bound | Mean probability estimate (from model, binned) | Empirical probability (mean in validation sample) |
| 0.00 | 0.11 | 0.07 | 0.01 |
| 0.11 | 0.20 | 0.15 | 0.05 |
| 0.20 | 0.30 | 0.25 | 0.07 |
| 0.30 | 0.40 | 0.35 | 0.10 |
| 0.40 | 0.50 | 0.45 | 0.20 |
| 0.50 | 0.60 | 0.55 | 0.22 |
| 0.60 | 0.70 | 0.65 | 0.27 |
| 0.70 | 0.80 | 0.75 | 0.46 |
| 0.80 | 0.89 | 0.84 | 0.52 |
| 0.89 | 1.00 | 0.93 | 0.79 |
| SF-36 MCS |
| Lower bound | Upper bound | Mean probability estimate (from model, binned) | Empirical probability (mean in validation sample) |
| 0.00 | 0.09 | 0.04 | 0.17 |
| 0.09 | 0.19 | 0.15 | 0.27 |
| 0.19 | 0.30 | 0.24 | 0.32 |
| 0.30 | 0.40 | 0.35 | 0.36 |
| 0.40 | 0.50 | 0.45 | 0.45 |
| 0.50 | 0.60 | 0.55 | 0.56 |
| 0.60 | 0.70 | 0.65 | 0.67 |
| 0.70 | 0.80 | 0.75 | 0.81 |
| 0.80 | 0.90 | 0.86 | 0.94 |
| 0.90 | 1.00 | 0.94 | 0.99 |
| HOOS JR |
| Lower bound | Upper bound | Mean probability estimate (from model, binned) | Empirical probability (mean in validation sample) |
| 0.00 | 0.11 | 0.07 | 0.00 |
| 0.11 | 0.20 | 0.15 | 0.03 |
| 0.20 | 0.30 | 0.25 | 0.03 |
| 0.30 | 0.40 | 0.35 | 0.09 |
| 0.40 | 0.50 | 0.45 | 0.12 |
| 0.50 | 0.60 | 0.55 | 0.15 |
| 0.60 | 0.70 | 0.65 | 0.16 |
| 0.70 | 0.80 | 0.75 | 0.35 |
| 0.80 | 0.89 | 0.84 | 0.45 |
| 0.89 | 1.00 | 0.93 | 0.50 |
| KOOS JR |
| Lower bound | Upper bound | Mean probability estimate (from model, binned) | Empirical probability (mean in validation sample) |
| 0.00 | 0.12 | 0.08 | 0.00 |
| 0.12 | 0.22 | 0.17 | 0.04 |
| 0.22 | 0.33 | 0.28 | 0.06 |
| 0.33 | 0.44 | 0.39 | 0.15 |
| 0.44 | 0.56 | 0.50 | 0.25 |
| 0.56 | 0.66 | 0.61 | 0.25 |
| 0.66 | 0.77 | 0.72 | 0.32 |
| 0.77 | 0.87 | 0.83 | 0.56 |
| 0.87 | 1.00 | 0.92 | 0.57 |

Outcomes were coded so that 0 = (achieve MCID) and 1 = (did not achieve MCID); compares binned predicted probabilities of not achieving an MCID (mean probability estimate, with bins defined by lower and upper bounds) to the true percentage not achieving an MCID (empirical probability) among the validation sample for each PROM MCID; LASSO = least absolute shrinkage and selection operator; PCS = physical component score; MCS = mental component score; HOOS JR = hip disability and osteoarthritis outcome score for joint replacement; KOOS JR = knee disability and osteoarthritis outcome score for joint replacement; MCID = minimally clinically important difference; PROM = patient-reported outcome measure.