Supplement Table S10: Summary of Posterior Distribution (Taking Opioid at Three Months)

	Median	95% Credible Intervall	Probability of being inside of Region of Practical Equivalence	Probability of Direction	r̂	Maximum A Posteriori based p-Value	Effective Sample Size
Age (years)	-0.0050500	[-0.200, 0.080]	91%	61%	1.001	0.959	531,000
Sex Female	0.0002060	[-0.210, 0.240]	87%	51%	1.000	0.951	618,000
Race (Consolidated): Not White	0.0002790	[-0.270, 0.310]	84%	51%	1.000	0.947	588,000
Race (Consolidated): No Response	-0.0021500	[-0.52, 0.210]	82%	56%	1.001	0.949	507,000
Body Mass Index (kg/m^2)	-0.0019600	[-0.220, 0.130]	90%	56%	1.002	0.978	120,000
ASA Physical Status: III or IV	-0.0007770	[-0.270, 0.190]	87%	53%	1.001	0.953	540,000
Relationship: Not a Couple	0.0003330	[-0.210, 0.250]	87%	51%	1.000	0.968	630,000
Occupation: Not Employed	0.3100000	[-0.040, 1.49]	38%	84%	1.002	0.972	217,000
Preoperative Taking Opioids	2.9200000	[2.33, 3.54]#	0%*	100%	1.001	< 0.001	536,000
Preoperative Taking Non-Opioid Analgesics	-0.0000803	[-0.230, 0.220]	88%	50%	1.000	0.998	622,000
Preoperative Anxiety Score	0.0038300	[-0.070, 0.130]	97%	60%	1.004	0.977	36,676
Preoperative Depression Score	0.0100000	[-0.050, 0.180]	89%	70%	1.006	0.955	20,876
Preoperative Physical Function Score	0.2400000	[0.0100, 0.42]#	9%	99%	1.011	0.381	9,306
Preoperative Pain Last Week at Surgical Site	0.0010900	[-0.210, 0.310]	85%	53%	1.001	0.947	555,000
Surgery Type - Total Hip	-0.0004970	[-0.340, 0.250]	84%	52%	1.000	0.973	578,000
Surgery Type - Knee Replacement	0.0100000	[-0.120, 1.08]	71%	67%	1.001	0.952	379,000
Surgery Type - Spine Surgery	0.0023600	[-0.170, 0.380]	84%	56%	1.000	0.971	571,000
Surgery Type - Open Thoracic	-0.0002040	[-0.47, 0.370]	81%	51%	1.000	0.965	545,000
Surgery Type - Mastectomy	0.0062800	[-0.170, 1.05]	76%	61%	1.000	0.954	455,000
General Anesthesia	-0.0003150	[-0.330, 0.280]	84%	51%	1.001	0.966	552,000
Neuraxial Anesthesia	0.0058000	[-0.140, 0.51]	81%	61%	1.003	0.967	101,000
Anesthesia Duration (minutes)	0.0800000	[-0.0100, 0.200]	64%	91%	1.007	0.993	20,695
Intraoperative Parenteral Morphine Equivalent	0.0200000	[-0.040, 0.190]	86%	76%	1.016	0.973	6,185
Intraoperative Non-Opioid Analgesics Administere	-0.0023300	[-0.47, 0.200]	82%	56%	1.000	0.960	553,000

The Credible Interval is positive, i.e., does not straddle 0.
* Null Hypothesis Rejected
^ Null Hypothesis Accepted

Anxiety, Depression, and Physical Function scores were collected using Patient-Reported Outcomes Measurement Information System Score forms (Physical Function short form 4a, Anxiety short form 4a, Depression short form 4a, as described in Cella D, Yount S, Rothrock N, Gershon R, Cook K, Reeve B, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS): Progress of an NIH Roadmap Cooperative Group During its First Two Years. Med Care. 2007;45(5 Suppl 1):S3-S11.
(ASA, American Society of Anesthesiologists)

Median: Midpoint of posterior distribution values of unobserved parameter

95% Credible Interval: Interval within which a parameter value falls with 95% probability

Probability of direction: Index of a parameter being strictly positive or strictly negative; 50% probability = parameter equally likely to be positive or negative;
100% probability = parameter almost certainly strictly positive or strictly negative;
Probability of Direction range is 50% to 100%

Region of Practical Equivalence: A decision rule for asserting a zero value of no importance for a parameter in the regression if the Credible Interval lies close to the zero value; for logistic regression the limits of ROPE are -0.18 to 0.18 (approximately an odds ratio of 0.84 to 1.20);
0% = almost all of posterior distribution outside the Regio of Practical Equivalence = zero value for parameter effectively rejected:
100% = almost all the posterior distribution lies within the Region of Practical Equivalence = parameter effectively equivalent to a zero value.

Gelman-Rubin Convergence Diagnostic (r̂): Good mixing of the Markov Chain Monte Carlo estimation of the Bayesian Posterior Distribution is demonstrated by an r̂ value very close to 1.

The Maximum A Posteriori Based p Value: Reflects the odds that the parameter has against the null hypothesis. It is mathematically defined as the density value at 0 divided by the density at the mode of the posterior distribution.

Effective Sample Size: A measure of the success of the Markov Chain Monte Carlo search to fully explore the parameter space of the regression model;
Effective Sample Size should be greater than 1000.