**Supplemental Content 11. Adjusted association between receipt of Multimodal Analgesia with post-operative morphine equivalent dose**

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|  | **Estimate\*** | **95% Confidence Limits** | **p-value** |
| **Intercept** | 274.5 | 241.1, 307.9 | <0.001 |
| **Multimodal Analgesia** |  |  |  |
| *Opioid and Non-Opioid* | -38.7 | -49.3, -28 | <0.001 |
| *Combination Opioid Alone* | -15.7 | -26.2, -5.2 | 0.004 |
| *Opioid Alone* | 0.8 | -9.8, 11.4 | 0.885 |
| *Combination Opioid and Non-Opioid* | reference |   |  |
| **Procedure Type** |   |   |   |
| *Abdominal Hysterectomy* | -11.4 | -42.2, 19.5 | 0.471 |
| *Abdominal wall hernia repair* | -10.9 | -29.8, 7.9 | 0.255 |
| *Appendectomy* | -29.2 | -53.5, -5 | 0.018 |
| *Coronary artery bypass graft (CABG)* | 42.3 | 13.8, 70.8 | 0.004 |
| *Hip replacement* | 226.3 | 207.6, 244.9 | <0.001 |
| *Knee joint replacement* | 264.5 | 246.1, 282.8 | <0.001 |
| *Laparoscopic or Vaginal Hysterectomy* | -9.7 | -32.7, 13.4 | 0.410 |
| *Laparoscopic Cholecystectomy* | -19.7 | -39.3, -0.2 | 0.048 |
| *Laparoscopic Colectomy* | -5.6 | -39.6, 28.3 | 0.744 |
| *Open Cholecystectomy* | 2.2 | -54.6, 59.1 | 0.938 |
| *Open Colectomy* | -11.1 | -42.8, 20.5 | 0.489 |
| *Partial mastectomy* | -21.8 | -41.6, -1.9 | 0.031 |
| *Radical prostatectomy* | -3.0 | -28.8, 22.8 | 0.818 |
| *Simple Mastectomy* | 9.3 | -60.8, 79.5 | 0.794 |
| *Thyroidectomy* | reference |   |  |
| **Opioid Use Category** |   |   |   |
| *Intermittent Opioid Use* | 4.6 | -3, 12.2 | 0.237 |
| *Chronic Opioid Use* | 76.7 | 68.2, 85.3 | <0.001 |
| *Opioid Naïve* | reference |   |  |
| **Demographics** |   |   |   |
| *Age* | -2.1 | -2.5, -1.8 | <0.001 |
| *Female* | -8.1 | -12.6, -3.7 | <0.001 |
| *Male* | reference |   |  |
| **Charlson Comorbidity Score** |   |   |   |
| *0* | 11.8 | 6.8, 16.7 | <0.001 |
| *1* | 16.8 | 8.5, 25.2 | <0.001 |
| *2+* | 3.0 | -5.2, 11.1 | 0.480 |
| *No Hospitalization* | reference |   |  |

\*Generalized linear model accounting for age, sex, comorbidity, opioid use category and procedure type.