**Supplemental Content 4. Sensitivity analyses, changing the definition of new non-opioid and opioid analgesic prescriptions**

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|  | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| **Total n** | 24,539 | 35,677 | 38,400 | 41,277 | 44,314 | 46,677 | 47,482 |
| **Primary Analysis** | | | | | | | |
| *Patients filling a Non- Opioid Prescription, n (%)a* | 2119 (9) | 3434 (10) | 4063 (11) | 4911 (12) | 6448 (15) | 9310 (20) | 13090 (28) |
| *Patients filling an Opioid Prescription, n (%)* | 18642 (76) | 27105 (76) | 29520 (77) | 31929 (77) | 33918 (77) | 35946 (77) | 35591 (75) |
| **Sensitivity Analyses** | | | | | | | |
| *Non-Opioid Prescription between day 0-6 post-operatively, with 90 days of no non-opioid prescription filled preoperatively, n (%)c* | 1,902 (8) | 3,102 (9) | 3,671 (10) | 4,481 (11) | 5,988 (14) | 8,788 (19) | 12,518 (26) |
| *Non-Opioid Prescription between day 30 preoperatively and 6 post-operatively, with no non-opioid prescription filled between day 90 and 31 preoperatively, n (%)d* | 3,263 (13) | 5,143 (14) | 5,820 (15) | 6,859 (17) | 8,586 (19) | 11,464 (25) | 14,907 (31) |
| *Opioid Prescription between day 30 preoperatively and 6 post-operatively, n (%)e* | 19,537 (80) | 28,445 (80) | 30,904 (81) | 33,310 (81) | 35,417 (80) | 37,444 (80) | 37,049 (78) |

1. A new non-opioid prescription was defined as a prescription within a specific class of medication filled in the first 7 days post-discharge (days 0-6) with no prescriptions in that same class of medications in the 30 days prior to surgery/hospitalization.
2. An opioid prescription was defined as a prescription filled in the first 7 days post-discharge (days 0-6)
3. A new filled non-opioid analgesic prescription within the first 7 days post-discharge (days 0-6) where a prescription in the same class of medication was not filled in the 90 days prior to surgery/hospitalization
4. A new filled non-opioid analgesic prescription analgesic prescription filled within the first 30 days pre-operatively until 6 days post-operatively, with no non-opioid prescription filled between day 90 and 31 preoperatively
5. Opioid prescriptions in this sensitivity analysis were filled within the first 30 days pre-operatively until 6 days post-operatively (Day -30 to Day 6)