**Appendix 2.** Before-surgery features

|  |  |  |  |
| --- | --- | --- | --- |
| Time point | Feature | Numerical or categorical | % missing (n = 13,719) |
| Before surgery | Baseline SF-36 physical component score (PCS) | Numerical | 5% |
| Before surgery | Baseline SF-36 mental component score (MCS) | Numerical | 5% |
| Before surgery | Baseline SF-36 physical functioning score | Numerical | 1% |
| Before surgery | Baseline SF-36 role physical score | Numerical | 2% |
| Before surgery | Baseline SF-36 bodily pain score | Numerical | 1% |
| Before surgery | Baseline SF-36 general health score | Numerical | 2% |
| Before surgery | Baseline SF-36 vitality score | Numerical | 1% |
| Before surgery | Baseline SF-36 social functioning score | Numerical | 1% |
| Before surgery | Baseline SF-36 role emotional score | Numerical | 3% |
| Before surgery | Baseline SF-36 mental health score | Numerical | 1% |
| Before surgery | Baseline HOOS JR or KOOS JR score | Numerical | 1% |
| Before surgery | Baseline HOOS or KOOS pain score | Numerical | 1% |
| Before surgery | Baseline HOOS or KOOS symptom score | Numerical | 2% |
| Before surgery | Baseline HOOS or KOOS ADL score | Numerical | 1% |
| Before surgery | Baseline HOOS or KOOS sports/rec score | Numerical | 15% |
| Before surgery | Baseline HOOS or KOOS QOL score | Numerical | 3% |
| Before surgery | Baseline WOMAC pain score | Numerical | 2% |
| Before surgery | Baseline WOMAC stiffness score | Numerical | 1% |
| Before surgery | Baseline WOMAC function score | Numerical | 3% |
| Before surgery | Baseline LEAS | Numerical | 2% |
| Before surgery | Baseline pain VAS | Numerical | 3% |
| Before surgery | Baseline fatigue VAS | Numerical | 2% |
| Before surgery | Baseline general health VAS | Numerical | 3% |
| Before surgery | Baseline EQ-5D score | Numerical | 3% |
| Before surgery | Baseline expectations survey score | Numerical | 25% |
| Before surgery | Number of procedures before index surgery date during inpatient stay | Numerical | 0.05% |
| Before surgery | ASA score | Categorical | 0.04% |
| Before surgery | Day of week of baseline survey | Categorical | 0% |
| Before surgery | Month of year of baseline survey | Categorical | 0% |
| Before surgery | Surgeon | Categorical | 0.05% |
| Before surgery | Doctor | Categorical | 0.01% |
| Before surgery | Day of week of index surgery | Categorical | 0% |
| Before surgery | Month of year of index surgery | Categorical | 0% |
| Before surgery | Attended presurgery class (or not) | Categorical | 32% |
| Before surgery | CCS procedure codes before surgery during inpatient stay | Categorical | 0.05% |

HOOS JR = Hip Disability and Osteoarthritis Outcome Score for joint replacement; KOOS JR = Knee Disability and Osteoarthritis Outcome Score for joint replacement; ADL = activities of daily living; QOL = quality of life; LEAS = lower extremity activity scale; EQ-5D = 5-dimension EuroQol quality of life survey; ASA = American Society of Anesthesiologists; CCS = clinical classifications software