**Appendix 1: Unit costs used for economic evaluation**

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|  | **Cost**  | **Amount** | **Source** |
| **Operative Costs** | THA implant materials | $1,789 | CIHI, confirmed with Hospital Administration(22) |
| HA implant materials | $925 | CIHI, confirmed with Hospital Administration(22) |
| OR time / Minute | $208 | CIHI, confirmed with Hospital Administration(22) |
| **Post-Operative Costs** | Physiotherapy (PT), hourly treatment(number of hourly sessions) | $120 (6) | Ontario Health Insurance Plan |
| **Surgical Serious Adverse Events** | Implant Loosening, Breakage, Wear, Fracture, Osteolysis | $2,463  | CIHI 317 - Revised Hip Replacement without Infection |
| Infection - Deep  | $1,580 | CIHI 316 - Revised Hip Replacement with Infection |
| **Medical Serious Adverse Events** | Cerebral Edema | $1,176 | CIHI 027 |
| Hemorrhagic Transformation | $1,301 | CIHI 025 |
| Ischemic Stroke | $1,225 | CIHI 026 |
| Nerve Problem, describe location above | $1,189 | CIHI 042 |
| Seizure | $1,075 | CIHI 040 |
| Transient Ischemic Attack | $1,111 | CIHI 029 |
| Other Neurological Event, describe above | $1,189 | CIHI 042 |
| Pneumonia | $1,317 | CIHI 136 |
| Acute Respiratory Distress | $1,160 | CIHI 142 |
| Other Respiratory Event, describe above | $1,160 | CIHI 142 |
| Arrhythmia | $1,121 | CIHI 202 |
| Cardiogenic Shock | $1,297 | CIHI 193  |
| Heart Failure | $1,060 | CIHI 196 |
| Hypertension | $1,113 | CIHI 206 |
| Hypotension | $988 | CIHI 205  |
| Pulmonary Edema | $1,060 | CIHI 196 |
| Myocardial Infarction | $1,297 | CIHI 193 |
| Unstable Angina | $950 | CIHI 207  |
| Other Cardiac Event, describe above | $1,160 | CIHI 209 |
| Renal Dysfunction | $1,066 | CIHI 477 |
| Renal Failure (requiring dialysis) | $1,329 | CIHI 480 |
| Urinary Tract Infection | $1,081 | CIHI 487 |
| Other Renal Event, describe above | $984 | CIHI 482 |
| Deep Vein Thrombosis | $957 | CIHI 211 |
| Edema, describe above | $1,129 | CIHI 212 |
| Pulmonary Embolism | $1,367 | CIHI 210 |
| Hematoma (i.e. palpable mass), | $1,117 | CIHI 213 |
| Other Vascular Event, describe above | $1,117 | CIHI 213 |
| Non-study related fracture | $2,510 | CIHI 343  |
| Non-Study Related Dislocation, describe | $2,510 | CIHI 343  |
| Other Non-Study Related Injury, | $2,510 | CIHI 343  |
| Cellulitis | $1,019 | CIHI 405 |
| Death, describe cause of death above | 0 |  |
| Multi-Organ Failure | $1,409 | CIHI654  |
| Sepsis | $1,930 | CIHI 650  |
| Other, describe above | $1,431 | CIHI 812  |
| **Secondary Procedures** | Revised Hip Replacement without Infection | $2,463 | CIHI 317  |
| Revised Hip Replacement with Infection | $1,580 | CIHI 316  |

Note: All serious adverse events and Secondary procedure costs represent cost per day of stay in hospital.