**Appendix 3.** Before discharge and after discharge features

|  |  |  |  |
| --- | --- | --- | --- |
| Time point | Feature | Numerical or categorical | % missing (n = 13,719) |
| Before discharge | Total time in operating room (minutes) | Numerical | 0.01% |
| Before discharge | Number of nonindex procedures on date of index surgery | Numerical | 0.05% |
| Before discharge | Hour admitted to hospital | Categorical | 0.01% |
| Before discharge | Anesthesia type | Categorical | 0.02% |
| Before discharge | CCS procedure codes on index surgery date during inpatient stay | Categorical | 0.05% |
| After discharge | Valvular disease (Elixhauser) | Categorical | 0.05% |
| After discharge | Peripheral vascular disease (Elixhauser) | Categorical | 0.05% |
| After discharge | Paralysis (Elixhauser) | Categorical | 0.05% |
| After discharge | Other neurological disorders (Elixhauser) | Categorical | 0.05% |
| After discharge | Chronic pulmonary disease (Elixhauser) | Categorical | 0.05% |
| After discharge | Diabetes without chronic complications (Elixhauser) | Categorical | 0.05% |
| After discharge | Diabetes with chronic complications (Elixhauser) | Categorical | 0.05% |
| After discharge | Hypothyroidism (Elixhauser) | Categorical | 0.05% |
| After discharge | Liver disease (Elixhauser) | Categorical | 0.05% |
| After discharge | Peptic ulcer disease without bleeding (Elixhauser) | Categorical | 0.05% |
| After discharge | Acquired immune deficiency syndrome (Elixhauser) | Categorical | 0.05% |
| After discharge | Lymphoma (Elixhauser) | Categorical | 0.05% |
| After discharge | Metastatic cancer (Elixhauser) | Categorical | 0.05% |
| After discharge | Solid tumor without metastasis (Elixhauser) | Categorical | 0.05% |
| After discharge | Rheumatoid arthritis (Elixhauser) | Categorical | 0.05% |
| After discharge | Coagulopthy (Elixhauser) | Categorical | 0.05% |
| After discharge | Obesity (Elixhauser) | Categorical | 0.05% |
| After discharge | Weight loss (Elixhauser) | Categorical | 0.05% |
| After discharge | Chronic blood loss anemia (Elixhauser) | Categorical | 0.05% |
| After discharge | Deficiency anemias (Elixhauser) | Categorical | 0.05% |
| After discharge | Alcohol abuse (Elixhauser) | Categorical | 0.05% |
| After discharge | Drug abuse (Elixhauser) | Categorical | 0.05% |
| After discharge | Depression (Elixhauser) | Categorical | 0.05% |
| After discharge | Hypertension (Elixhauser) | Categorical | 0.05% |
| After discharge | Congestive heart failure (Elixhauser) | Categorical | 0.05% |
| After discharge | Pulmonary circulation disease (Elixhauser) | Categorical | 0.05% |
| After discharge | Renal failure (Elixhauser) | Categorical | 0.05% |
| After discharge | Fluid and electrolyte disorders (Elixhauser) | Categorical | 0.05% |
| After discharge | Psychoses (Elixhauser) | Categorical | 0.05% |
| After discharge | Peripheral vascular disease (Charlson) | Categorical | 0.05% |
| After discharge | Cerebrovascular disease (Charlson) | Categorical | 0.05% |
| After discharge | Chronic obstructive pulmonary disease (Charlson)  | Categorical | 0.05% |
| After discharge | Dementia (Charlson) | Categorical | 0.05% |
| After discharge | Paralysis (Charlson) | Categorical | 0.05% |
| After discharge | Diabetes (Charlson) | Categorical | 0.05% |
| After discharge | Diabetes with sequalae (Charlson) | Categorical | 0.05% |
| After discharge | Chronic renal failure (Charlson) | Categorical | 0.05% |
| After discharge | Various cirrhodites (Charlson) | Categorical | 0.05% |
| After discharge | Moderate-severe liver disease (Charlson) | Categorical | 0.05% |
| After discharge | Ulcers (Charlson) | Categorical | 0.05% |
| After discharge | Rheumatoid arthritis (Charlson) | Categorical | 0.05% |
| After discharge | Acquired immune deficiency syndrome (Charlson) | Categorical | 0.05% |
| After discharge | Cancer (Charlson) | Categorical | 0.05% |
| After discharge | Myocardial infarction (Charlson) | Categorical | 0.05% |
| After discharge | Chronic heart failure (Charlson) | Categorical | 0.05% |
| After discharge | Charlson comorbidity index | Numerical | 0.05% |
| After discharge | Discharge disposition | Categorical | 0.05% |
| After discharge | CCS procedure codes after index surgery date during inpatient stay | Categorical | 0.05% |
| After discharge | CCS diagnosis codes during inpatient stay | Categorical | 0.05% |
| After discharge | Length of inpatient stay (days) | Numerical | 0.05% |
| After discharge | Total number of procedure codes during inpatient stay | Numerical | 0.05% |
| After discharge | Number of procedure codes after index surgery date during inpatient stay | Numerical | 0.05% |
| After discharge | Total number of diagnosis codes during inpatient stay | Numerical | 0.05% |

CCS = clinical classifications software.