

APPENDIX

Primary Total Knee Arthroplasty Study Inclusion Criteria

The following Inpatient ICD-9 procedure code was required for inclusion.

Knee Arthroplasty 81.54

A case is classified as such if the knee arthroplasty is the primary procedure. No additional confirming evidence is included.

Study Exclusion Criteria

Patients with the following ICD-9 procedure or diagnosis codes are excluded from case classification.

I. Conversion of previous knee arthroplasty to total knee arthroplasty—All patients with codes indicating previous arthroplasty or complications of previous total knee arthroplasty are excluded. These codes include:

ICD-9 diagnosis codes: (Code must be dx1 with valid validity flag)

Mechanical complication of internal orthopedic device 996.4

Complication due to infection or inflammation of internal orthopaedic device, implant, or graft 996.67

Complication due to infection or inflammation of internal joint prosthesis 996.66

Complication of internal prosthetic device, implant, and graft 996.7

Complication due to unspecified device, implant, or graft 996.70

Complication due to joint prosthesis 996.77

Complication of unspecified orthopaedic internal device, implant, or graft 996.78

II. Infection of knee or thigh—Patients with codes for osteomyelitis, periostitis, and other infection of the bones previous to or during the index admission are excluded. The excluding codes include:

Acute or subacute osteomyelitis 730.0

Chronic osteomyelitis 730.1

Infection or inflammation due to unspecified device, implant, or graft 996.60

Infection or inflammation due to internal joint device or prosthesis 996.66

Infection or inflammation due to presence of unspecified orthopaedic device or implant 996.67

III. Pathologic fractures—Patients are likewise excluded from analysis if a code indicating metastatic cancer or bone malignant neoplasm is indicated as primary or secondary diagnosis. These exclusion codes include:

Malignant neoplasm of bone or articular cartilage 170

Malignant neoplasm of lower extremity 170.7

Malignant neoplasm, site unspecified 170.9

Malignant neoplasm, tibia/femur/fibula 170.7

Secondary malignant neoplasm 198

Secondary malignant neoplasm of bone or bone marrow 198.5

Secondary malignant neoplasm of lower limb 196.5

Neoplasm, uncertain behavior 238.9

Neoplasm, unspecified 239.9

Pathologic fracture (cause unknown) 733.10

Pathologic fracture of femur (not otherwise classified) 733.15

Pathologic fracture of fibula 733.16

Pathologic fracture of tibia 733.16

Revision Total Knee Arthroplasty Study Inclusion Criteria

The following Inpatient ICD-9 procedure code is required for inclusion.

Knee Arthroplasty, Revision 81.55

A case is classified as such if the revision knee arthroplasty is the primary procedure.

Revision Total Knee Arthroplasty Exclusion Criteria

Patients with the following ICD-9 procedure or diagnosis codes are excluded from case classification.

IV. Pathologic fractures—Patients are likewise excluded from analysis if a code indicating metastatic cancer or malignant bone neoplasm is indicated as primary or secondary diagnosis. These exclusion codes include:

Malignant neoplasm of bone or articular cartilage 170

Malignant neoplasm of lower extremity 170.7

Malignant neoplasm, site unspecified 170.9

Malignant neoplasm, tibia/femur/fibula 170.7

Secondary malignant neoplasm 198

Secondary malignant neoplasm of bone or bone marrow 198.5

Secondary malignant neoplasm of lower limb 196.5

Neoplasm, uncertain behavior 238.9

Neoplasm, unspecified 239.9

Pathologic fracture (cause unknown) 733.10

Pathologic fracture of femur (not otherwise classified) 733.15

Pathologic fracture of fibula 733.16

Pathologic fracture of tibia 733.16

Variable Definitions

Main Outcomes

Mortality

DIED—in-hospital mortality [1997 HCUP-NIS database Release 6 data field]

Length of Stay

LOS—length of stay (cleaned) [1997 HCUP-NIS database Release 6 data field]

Post-surgical complication

INFECTION

Postoperative wound infection 998.59

Postoperative wound infection knee (skin) 686.9

THROMBOPHLEBITIS

Thrombophlebitis during or resulting from a procedure NEC 997.2

Thrombophlebitis lower extremity 451.2

Thrombophlebitis deep vessels of lower extremity 451.19

Thrombophlebitis femoral vein 451.11

Thrombophlebitis lower extremity specified vessel NEC 451.19

PULMONARY EMBOLUS

Pulmonary embolism pulmonary (artery) (vein) 415.19

Pulmonary embolism postoperative 415.11