Table A: Procedure codes used to extract patients' hospital stay after primary hip or knee arthroplasty from the French national hospital discharge database between January 2008 and December 2011

|  |  |
| --- | --- |
| **Prosthesis type** | **Procedure codes according to the French Common Classification of Medical Acts (FCCMA)** |
| Total hip prosthesis | NEKA010, NEKA012, NEKA014, NEKA016, NEKA017, NEKA020, NEKA021 |
| Partial hip prosthesis | NEKA011, NEKA013, NEKA015, NEKA018, NEKA019, NEMA011, NEMA018, NEMA020 |

Table B: ICD-10 coding algorithm for “PJI” comorbidities

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| **Comorbidities** | **Diagnosis codes according to the International Classification of Diseases-10th revision (ICD 10)** |
| Chronic heart disease | A52.0, I05.x-I08.x, I09.1, I09.8, I09.9, I11.0, I13.0, I13.2, I25.5, I34.x-I39.x, I42.0,  I42.5-I42.9, I43.x, I44.1-I44.3, I45.6, I45.9, I47.x-I49.x, I50.x, P29.0, Q23.0-Q23.3, R00.0, R00.1, R00.8, T82.1, Z45.0, Z95.0, Z95.2-Z95.4, I21.x, I22.x, I25.2 |
|  |  |
| Chronic pulmonary disease | I27.8, I27.9, J40.x-J47.x, J60.x-J67.x, J68.4, J70.1, J70.3 |
|  |  |
| Chronic renal disease | I12.0, I13.1, N03.2-N03.7, N05.2-N05.7, N18.x, N19, N25.0, Z49.0-Z49.2, Z94.0, Z99.2x |
|  |  |
| Chronic liver disease | B18.x, I85.x, I86.4, I98.2, K70.x, K71.1, K71.3-K71.5, K71.7, K72.x-K74.x, K76.0,  K76.2-K76.9, Z94.4 |
|  |  |
| Hypertension | I10.x-I13.x, I15.x |
|  |  |
| Uncomplicated diabetes | E10.0, E10.1, E10.9, E11.0x, E11.1x, E11.9x, E12.0, E12.1, E12.9, E13.0, E13.1, E13.9, E14.0, E14.1, E14.9 |
|  |  |
| Complicated diabetes | E10.2-E10.8, E11.2-E11.8, E12.2-E12.8, E13.2-E13.8, E14.2-E14.8 |
|  |  |
| Pulmonary circulation disorders | I26.x, I27.x, I28.0, I28.8, I28.9 |
|  |  |
| Peripheral vascular disorders | I70.x, I71.x, I73.1, I73.8, I73.9, I77.1, I79.0, I79.2, K55.1, K55.8, K55.9, Z95.8, Z95.9 |
|  |  |
| Chronic rheumatoid disease | L94.0, L94.1, L94.3, M05.x, M06.x, M08.x, M12.0, M12.3, M30.x, M31.0-M31.3, M31.5,  M32.x-M35.x, M36.0, M45.x, M46.1, M46.8, M46.9 |
|  |  |
| Neurological disease | F00.x-F03.x, F05.1, G04.1, G11.4, G30.x, G31.1, G10.x-G13.x, G20.x-G22.x, G25.4, G25.5, G31.2, G31.8, G31.9, G32.x, G35.x-G37.x, G40.x, G41.x, G45.x, G46.x, G80.1, G80.2, G81.x, G82.x, G83.0-G83.4, G83.9, G93.1, G93.4, H34.0, I60.x-I69.x, R47.0, R56.x |
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| AIDS/HIV | B20.x-B22.x, B24.x |
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| Cancer | C00.x-C26.x, C30.x-C34.x, C37.x-C41.x, C43.x, C45.x-C58.x, C60.x-C85.x, C88.x, C90.0, C90.2, C96.x, C97.x |
|  |  |
| Immunological deficiency syndrome | D80.x-D84.x, Z94.80x |
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| Chronic anemia | D50.0, D50.8, D50.9, D51.x-D53.x |
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| Coagulopathy | D65-D68.x, D69.1, D69.3-D69.6 |
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| Postoperative acute anemia | D62 |
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| Under nutrition | E40.x-E46.x, R63.4, R64 |
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| Obesity | E66.x |
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| Hypothyroidism | E00.x-E03.x, E89.0 |
|  |  |
| Fluid and electrolyte disorders | E22.2, E86.x E87.x |
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| Psychiatric disorder | F20.x, F22.x-F25.x, F28.x, F29.x, F30.2x, F31.2x, F31.3-F31.5, F32.x, F33.x, F34.1, F41.2, F43.2x |
|  |  |
| Drug abuse | F11.x-F16.x, F18.x, F19.x, Z71.5, Z72.2 |
|  |  |
| Alcohol abuse | E52, F10.x, G62.1, I42.6, K29.2, K70.0, K70.3, K70.9, T51.x, Z50.2, Z71.4, Z72.1 |
|  |  |
| Peptic ulcer disease | K25.x-K28.x |
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| Skin ulcers | L89.x, L97, L98.4 |
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| Psoriasis | L40.x |
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Table C: ICD-10 codes used to extract etiology underlying the need of joint replacement from principal and relied diagnosis

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| **Underlying native joint disease** | **Diagnosis codes according to the International Classification of Diseases-10th revision (ICD 10)** |
| Degenerative osteoarthritis | M15.0, M15.9, M16.x, M17.x, M19.0, M19.05, M19.08, M19.1, M19.15, M19.18, M19.2, M19.25, M19.28, M19.8, M19.85, M19.88, M19.9, M19.95, M19.98 |
| Fracture | S32.80, M80.0, M80.05, M80.08, M80.09, M80.2, M80.25, M80.28, M80.29, M80.3, M80.35, M80.38, M80.39, M80.4, M80.45, M80.48, M80.49, M80.5, M80.55, M80.58, M80.59, M80.8, M80.85, M80.88, M80.89, M80.9, M80.95, M80.98, M80.99, M84.0, M84.05, M84.06, M84.1, M84.15, M84.16, M84.18, M84.25, M84.35, M84.4, M84.45, M84.46, S32.4, S32.40, S32.50, S32.70, S32.8, S72.0, S72.00 |
| Osteonecrosis | M87.0, M87.00, M87.05, M87.06, M87.08, M87.09, M87.1, M87.15, M87.16, M87.18, M87.19, M87.2, M87.25, M87.26, M87.28, M87.29, M87.3, M87.35, M87.36, M87.38, M87.39, M87.8, M87.85, M87.86, M87.88, M87.89, M87.9, M87.90, M87.95, M87.96, M87.98, M87.99, M90.35, M90.45, M90.55 |
| Inflammatory osteoarthritis | M01.15, M05.05, M05.06, M05.15, M05.16, M05.25, M05.26, M05.35, M05.36, M05.85, M05.86, M05.95, M05.96, M06.05, M06.06, M06.45, M06.46, M06.85, M06.89, M06.95, M06.96, M07.16, M07.35, M07.36, M11.2, M11.25, M11.26, M12.26, M12.85, M12.86, M13.0, M13.1, M13.15, M13.16, M13.85, M13.86, M13.95, M13.96, M36.2, M45, M45+8, M65.85, M65.86, M65.96, M88.85, M91.x |
| Tumor | C40.2, C40.3, C40.8, C41.4, C41.8, C41.9, C49.2, C79.5, C79.8, C90.0, C90.3, D16.2, D48.0, M90.65, M90.7, M90.75, M90.76, M90.78, M90.79 |
| Other | M14.5, M21.0, M21.06, M21.1, M21.15, M21.16, M21.85, M21.86, M22.0, M22.1, M22.2, M22.3, M22.4, M22.8, M24.15, M24.35, M24.45, M24.56, M24.65, M24.66, M24.7, M24.75, M24.85, M24.86, M25.06, M25.35, M25.46, M25.5, M25.55, M25.56, M25.65, M25.66, M25.75, M25.76, M25.85, M25.86, M85.05, M89.55, M89.85, M93.0, M93.2, M93.8, M94.35, M94.36, M94.85, M94.86, M96.0, M96.6, M96.8, Q65.0, Q65.1, Q65.2, Q65.8, Q74.1 |