Supplementary data

Appendix A. Diagnostic ICD-10 codes applied in the National Patient Registry data extraction to identify possible incorrectly coded dislocation cases

| Code       | Description                                                                 |
|------------|-----------------------------------------------------------------------------|
| DS33.3*    | Dislocation of other and unspecified parts of lumbar spine and pelvis       |
| DS70–DS79* | Injuries to the hip and thigh                                                |
| DT03.1 + DT03.3–DT03.9 | Dislocations, sprains and strains involving multiple regions of lower limb(s) |
| DT09.2     | Dislocation, sprain and strain of unspecified joint and ligament of trunk   |
| DT12*-DT13*| Other injuries of lower limb, level unspecified                              |
| DT14.3     | Dislocation, sprain, and strain of unspecified body region                  |
| DT81.9     | Unspecified complication of procedure                                        |
| DT84.0*-DT85* | Complications of internal orthopedic prosthetic devices, implants, and grafts |
| DT88.9     | Complication of surgical and medical care, unspecified                       |
| DT93*      | Sequelae of injuries of lower limb                                           |
| DT94*      | Sequelae of injuries involving multiple and unspecified body regions         |
| DT98.1–DT98.2 | Sequelae of other and unspecified effects of external causes                |
| DM15*-DM16* + DM19* | Polymyalgia/Rheumatoid arthritis/Other arthritis                         |
| DM24.3*    | Pathological dislocation and subluxation of joint, not elsewhere classified  |
| DM24.4A+B  | Recurrent dislocation and subluxation of joint                              |
| DM24.9     | Joint derangement, unspecified                                               |
| DM25.2     | Flail joint                                                                  |
| DM25.3     | Other instability of joint                                                   |
| DM25.5     | Pain in joint                                                                |
| DM25.9     | Joint disorder, unspecified                                                   |
| DM96.6*-DM96.9* | Fracture of bone following insertion of orthopedic implant, joint prosthesi            |
| DZ03.9     | Observation for suspected disease or condition, unspecified                  |
| DZ04.2*-DZ04.3* | Examination and observation following work accident/Examination and observatio |
| DZ04.9*    | Examination and observation for unspecified reason                           |
| DZ96.6*-DZ96.7* | Presence of orthopedic joint implants/Presence of other bone and tendon implan |
| DZ98.8     | Other specified postsurgical states                                          |

* = including sublevels

Appendix B. Procedural NCSP codes applied in the National Patient Registry data extraction to identify possible incorrectly coded dislocation cases

| Code       | Description                                                                 |
|------------|-----------------------------------------------------------------------------|
| KNFA0*-KNFG9* | Exploratory procedures on the hip and thigh/Primary insertions of joint prosthesis in the hip joint/Secondary insertion of joint prosthesis into the hip joint/Operations on joint capsule and ligaments in the hip joint/Operations on synovia and joint surfaces of the hip joint/Resections, arthroplasty and arthrodesis of the hip joint |
| KNFJ0*-KNFW9* | Fracture treatments in the femur/Bone operations on the femur/Operations on muscles and tendons in the hip and thigh/Operations on fascia, tendon sheaths, ganglia and bursae in the hip and thighs/Transplantations on hip and thighs/Replantations on hip and thighs/Amputations and other related hip and thigh surgery/Surgery for hip and thigh tumors/Operations of tendon, joint and bone infections in the hip and thigh/Different hip and thigh surgery/Removal of implants and external fixation equipment from hip and thigh/Reoperations after hip and thigh surgery |
| KNFH0*-KNFH9* | Different joint operations in the hip |
| KNE*       | Operations on the pelvis                                                     |
| KTNF*      | Minor surgical procedures on hip and thighs                                  |

Appendix C. Interpretation of correct coding of a THA dislocation

Ideally, every patient contact concerning an radiographically verified THA dislocation should be assigned an ICD-10 diagnostic code (DT84.0A—Mechanical complication of internal joint prosthesis, hip). The contact should likewise be linked with a procedural code describing the intervention being performed, in this case reduction of the dislocated hip. The Danish version of the Nordic Medico-Statistical Committees (NOMESCO) Classification of Surgical Procedures (NCSP) is currently the standard application in Denmark. In this setting, the code KNFH2* (reduction of dislocated joint prosthesis in the hip; *either closed, arthroscopic, or open) would be the most appropriate choice. There is also a laterality variable for each of the two codes. This is particularly important in order to discriminate between relevant hip contacts and a contralateral hip not included in this study.

Appendix D. Description of the review burden related to Table 2

A total of 31,762 THAs are included in our study. Here we have listed the number of contacts in groups 4 and 5, and how many patient files need review to either confirm or invalidate dislocation.

Step 4A: There were 106 contacts in Group 4, and after reviewing we confirmed 70 dislocations and refuted 36.
Step 5A: There were 203 contacts in Group 5, and after reviewing we confirmed 43 dislocations and refuted 160.