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Registry data as a useful tool to measure the validity of hospital discharge data. A study of the Italian Arthroplasty Registry on hip arthroplasty.

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Introduction

In Italy, Hospital Discharge Data (HDD) are routinely collected for all the admissions performed by public and private structures (~ 10 million/year). HDD contains demographic and clinical data representing a valuable source of information for epidemiological studies. The Italian Arthroplasty Registry (RIAP) data collection flow uses HDD integrated by an additional Minimum Data Set (MDS) including information essential to perform devices survival analyses. Aim of this study is to measure HDD validity by comparing information collected in MDS with the homologous included in HDD (type of procedure), using MDS as a reference set.

Materials and Methods

Each HDD record includes eleven fields related to the procedures (1 principal, 10 secondary). Analyses considered 99173 hip arthroplasties (primary and revision passing quality check) collected by RIAP. For each record, the procedure collected in MDS was compared with the ICD9-codes registered in the HDD principal procedure.

Results

Initial analysis shows that in about 57% of the records, HDD principal procedure was correctly represented as hip-related with reference to the corresponding MDS variable. For this part, relative similarity in both variables' distributions was detected. In 5156 records, ICD9-code 9904 (Transfusion of packed cells) was found as HDD principal procedure.

Discussion/Conclusion

Since about only 57% of hip arthroplasties are correctly identified in HDD principal procedure, analyses on HDD data should be done considering also the secondary procedures. However, similarity in both distributions of the HDD and MDS variables is a positive indication that where HDD reports a hip-related principal procedure, the type is reported with high accuracy.

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