**P057  THE ACCURACY OF INCISIONAL HERNIA CODES IN ADMINISTRATIVE DATA: A VALIDATION STUDY**

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**Aim:** Administrative databases contain valuable information for studying incisional hernia (IH) following intra-abdominal procedures at a large scale. We assessed the validity of billing codes for the identification of IH in patients following abdominal surgery.

**Material and Methods:** Using International Classification of Diseases, Ninth and Tenth Revision, Clinical Modification (ICD-9-CM and ICD-10-CM), a random sample of 1,000 patients who underwent abdominal operations between 2006-2020 within a large health system-wide administrative database and ≥1 year of follow-up were screened for eligibility. Validation of IH codes was performed using the electronic medical record as reference. Validity metrics of interest included sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) and accuracy. Patient factors associated with false positive (FP) and false negative (FN) were also explored within univariate and multivariate analyses.

**Results:** 759 patients were included. The sensitivity of IH codes was 94.7% (CI 91.4 – 97.0), specificity was 94.9% (CI 92.6 – 96.7), PPV was 84.4% (CI 78.5 – 88.9), NPV was 98.4 (CI 97.4 – 99.0), accuracy was 94.9% (CI 93.0 – 96.3). Within adjusted analyses, patients admitted to a non-surgical service (relative to patients admitted to surgical services; OR 4.46 [95% CI 1.06-18.66]; p = 0.04) were associated with FP; whereas every one-year increase in age was associated with a 5.0% (95% CI 1.0%-10.0%) increase in FN (p = 0.03).

**Conclusions:** We have validated the use of ICD-9-CM and ICD-10-CM codes for accurately identifying IH following abdominal surgery. This method yields >94% for key validity measures.