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## **Assessment of 126,913 inguinal hernia repairs in the Emilia-Romagna region of Italy: analysis of 10 years.**

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Source

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### **PURPOSE**

Inguinal hernioplasty could be used as an indicator of the surgical quality offered in different health institutions and countries, thereby establishing a scientific basis from which the procedure can be critically assessed and ultimately improved. Quality assessment of hernioplasties could be conducted using two different methods: either analyzing dedicated regional/national databases (DD) or reviewing administrative databases (AD).

### **METHODS**

A retrospective study of inguinal hernioplasties was carried out in the Emilia-Romagna hospitals between 2000 and 2009. Data were obtained by analyzing Hospital Discharge records regional Databases (HDD). Descriptive and multivariate statistical analysis was performed.

### **RESULTS**

126,913 inguinal hernioplasty procedures were performed. The annual rate was on average 34 per 10,000 inhabitants. An increase of the case mix complexity and relevant changes in procedure technique were recorded. From multivariate analysis, the following independent factors related to a hospitalization longer than 1 day emerged: procedures in urgent setting (OR 3.6, CI 3.4-3.7), Charlson's score  $\geq 2$  (OR 3.4, CI 3.1-3.7), laparoscopy (OR 2.1, CI 1.9-2.3), no mesh use (OR 2.1, CI 2-2.3), age >65 years (OR 1.9, CI 1.8-1.9), associated interventions (OR 1.9, CI 1.8-1.9), bilateral hernia (OR 1.7, CI 1.6-1.8), recurrent hernia (OR 1.2, CI 1.1-1.2) and female gender (OR 1.2, CI 1.2-1.3). Factors related to non-prosthetic hernioplasty were: bilateral hernia (OR 2.7, CI 2.5-2.9), female gender (OR 1.8, CI 1.8-2.0), emergency setting (OR 1.6, CI 1.5-1.8), recurrences (OR 1.5, CI 1.4-1.6) and associated interventions (OR 1.5, CI 1.4-1.6).

### **CONCLUSION**

Inguinal hernia should be treated as an outpatient procedure in the majority of patients. Precise guidelines are necessary. HDD demonstrated to be a good and trustworthy system to collect clinical data. When precise guidelines are lacking, legal/institutional indications play a pivotal role in shifting the hernia surgery toward a one-day surgery regimen.