

## **Cholecystectomy in Emilia-Romagna region (Italy): A retrospective cohort study based on a large administrative database.**

[Catena F](#), [Melotti RM](#), [Louis D](#), [Fortuna D](#), [Ansaloni L](#), [Coccolini F](#), [Di Saverio S](#), [Sartelli M](#), [Tarasconi A](#), [Baiocchi G](#), [Portolani N](#), [Napoli J](#), [De Simone B](#), [Catena R](#), [De Palma R](#).

### **Abstract**

in [English](#), [Italian](#)

### **BACKGROUND:**

The aim of this study was to ascertain the variability and to identify a trend for the outcome of cholecystectomy surgery when used to treat cholelithiasis and acute cholecystitis.

### **METHODS:**

This was a large retrospective cohort study following patients up to 11 years post surgery, based on administrative data collected from 2002 to 2012 in the Emilia-Romagna Region (Northern Italy) and comparing the effectiveness and efficiency of surgical activity (laparoscopic (LC) and open cholecystectomy (OC)). Analyses included patient characteristics, length of hospital stay, type of admission and mortality risk. Outcomes considered were death from all causes (during the index hospital admission or thereafter), hospital readmissions with cholecystitis or cholelithiasis as principal diagnosis and time to surgery.

### **RESULTS:**

A total of 84,628 cholecystomies were performed from 2002 to 2012 out of 123,061 admissions with primary diagnostic category of cholecystitis or cholelithiasis. Laparoscopic procedure was used in 69,842 patients. Over time there was a rising linear statistically significant trend in the use of LC. Mortality rate at 1 year of OC treated patients showed a statistically significant difference compared to LC treated patients (using a cohorts match with propensity score). Only a small number of patients with acute cholecystitis was operated according guidelines within 72 hours.

### **CONCLUSIONS:**

The analysis of aggregate administrative data is a powerful tool to support regional health management, improve the quality of medical care, and assess the appropriateness of therapeutic or diagnostic approaches. It is important to stress a short hospital stay for laparoscopic cholecystectomy patients (50% less than open surgery): this shorter hospital stay leads to a significant economic advantage. Moreover, mortality is significantly higher in open surgery for acute cholecystitis. Interestingly, the same finding was confirmed after 30 days and 1 year, probably due to comorbidities that are more evident in open surgery.

### **KEY WORDS:**

Cholecystitis, Cholelithiasis, Delivery of health care, Disease management, Surgical.

PMID:

28874618