

## **Surgical Unit volume and 30-day reoperation rate following primary resection for colorectal cancer in the Veneto Region (Italy)**

Tech Coloproctol. 2016 Jan;20(1):31-40.

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**BACKGROUND:** The aim of this study was to evaluate the impact of Surgical Unit volume on the 30-day reoperation rate in patients with CRC.

**METHODS:** Data were extracted from the regional Hospital Discharge Dataset and included patients who underwent elective resection for primary CRC in the Veneto Region (2005-2013). The primary outcome measure was any unplanned reoperation performed within 30 days from the index surgery. Independent variables were: age, gender, comorbidity, previous abdominal surgery, site and year of the resection, open/laparoscopic approach and yearly Surgical Unit volume for colorectal resections as a whole, and in detail for colonic, rectal and laparoscopic resections. Multilevel multivariate regression analysis was used to evaluate the impact of variables on the outcome measure.

**RESULTS:** During the study period, 21,797 elective primary colorectal resections were performed. The 30-day reoperation rate was 5.5 % and was not associated with Surgical Unit volume. In multivariate multilevel analysis, a statistically significant association was found between 30-day reoperation rate and rectal resection volume (intermediate-volume group OR 0.75; 95 % CI 0.56-0.99) and laparoscopic approach (high-volume group OR 0.69; 95 % CI 0.51-0.96).

**CONCLUSIONS:** While Surgical Unit volume is not a predictor of 30-day reoperation after CRC resection, it is associated with an early return to the operating room for patients operated on for rectal cancer or with a laparoscopic approach. These findings suggest that quality improvement programmes or centralization of surgery may only be required for subgroups of CRC patients.

**FULL TEXT PER GLI UTENTI REGISTRATI ALLA RIVISTA**

<http://link.springer.com/article/10.1007/s10151-015-1388-0>