OBJECTIVES: Substantial evidence suggests that following an enhanced recovery after surgery (ERAS) program is effective in improving post-surgical outcomes. To examine the potential associations between benefits of ERAS protocol elements such as improved hospital costs, and readmissions, would require combining data elements from the ERAS program with regularly collected retrospective data elements in a large multi- institutional, prospective study. The objective of this exploratory study was to come from a retrospective dataset with a matched retrospective data source.

METHODS: Duke University Medical Center (DUMC) collected data on colorectal surgery patients in order to determine eligibility for inclusion in the study. With IRB approval, we matched selected patients in the Premier research database on criteria of age, gender, discharge date, procedure date, length of stay, presence of a colorectal procedure during stay, and presence of a colorectal procedure. All matches were verified.

RESULTS: Of the DUMC database, 206 (85.8%) matched on all variables. One other patient matched, except on having a colorectal procedure on an identical date. Thirteen (5%) were excluded on the basis of being an outlier. The remaining 10 (4.2%) patients could not be matched to either the DUMC or Premier database. This flexible approach can be utilized with other databases.

RESULTS: Amongst 14,462 patients prescribed conventional and 9,212 prescribed atypical antipsychotics, we observed 2,402 (16.6%) and 821 (8.9%) deaths during follow-up, respectively. New users of conventional antipsychotics were older and generally had higher prevalences of outcome risk factors and higher health service use intensity at baseline. The crude hazard ratio (HR) was 1.95 (95% confidence interval [CI], 1.80-2.11), which decreased to 1.47 (95% CI, 1.35-1.60) after full adjustment. We identified seven published studies examining this association using similar methods. The pooled HR from these seven studies was 1.34 (95% CI, 1.28-1.39). Upon inclusion of our study, the meta-analysis yielded a HR of 1.34 (95% CI, 1.28-1.40) without introducing any heterogeneity (I² = 0%; p=0.455).

CONCLUSIONS: Our results support the findings of previous studies and provide a refined estimate of the HR for mortality between individuals with atypical antipsychotics within 1-61 years of age, taking conventional versus atypical antipsychotics. Our study supports further research on the use of the KER database for pharmacoepidemiology studies.

OBJECTIVES: To evaluate the use of the population-based Emilia-Romagna region (RER) administrative database for drug outcomes studies using as an example the previously documented increased mortality risk amongst new users of conventional versus atypical antipsychotic medications.

METHODS: We conducted a new user cohort study in the Emilia-Romagna regional administrative database. The study was designed to compare our results with previous studies and provide a refined estimate of the HR for mortality between individuals with conventional versus atypical antipsychotics. Our study supports further research on the use of the KER database for pharmacoepidemiology studies.

OBJECTIVES: To evaluate the use of the population-based Emilia-Romagna region (RER) administrative database for drug outcomes studies using as an example the previously documented increased mortality risk amongst new users of conventional versus atypical antipsychotic medications.