Introduction:
Postoperative morbidity still remains a major concern for the survival and cost of treatment, negatively affecting either of them. The aim of the study to describe the most common complications after abdominal surgery (POC) and their impact on length of hospital stay (LOS) and in-hospital mortality. We also explored which patients were more at risk for these complications.

Methods:
Prospective observational study on patients who underwent abdominal surgery in University Hospital Center of Tirana that stayed ≥ 3 days in hospital.

Results:
540 patients, aged 62.3±12.5 years old, 58.9% male. 40.74% of the patients developed at least one POC, the most common POC were: pulmonary 30.7%, cardiovascular 16.7% and surgical complications 15.2%. Patients with POC had longer hospital stay compared to patients without those complications: 10.22±5.71(3-40) days versus 6.28±2.88 (3-15) days, P<0.0001.

In-hospital mortality resulted 8.3%. All the patients with mortality had at least one POC.
Risk for mortality was higher in patients with complications compared to patients without respective complications, such as: cardiovascular complications (OR: 10.28, 95%CI: 5.35-19.74), surgical complications (OR: 9.60, 95%CI: 5.01-18.39) and pulmonary complications (OR: 280.48, 95%CI: 17.14-4587.48), P- significant.
Multivariate analysis revealed that independent risk factor for POC were diabetes mellitus (OR:2.93, 95%CI:1.63-5.27, P=0.0003), hemoglobin levels < 10 g/dl (OR:2.15, 95%CI:1.25-3.71, P=0.005), previous lung disease: (OR:3.40, 95%CI:1.59-7.27, P=0.001), emergency admission: (OR: 6.47, 95%CI:2.01-20.76, P=0.001).

Conclusion:
Complications are frequent after abdominal surgery (incidence: 40.74%) and the most common complications were pulmonary complications. Postoperative complications increase length of hospital stay and in-hospital mortality. Efforts should be done to prevent complications, modifying their risk factors and optimizing the treatment of underlying diseases.