## Summary

Due to the development of technology and medicine, the average life expectancy in Poland and the world is prolonged. It is estimated that for the next thirty years, patients aged 60 years and more will account for over 30% of the population. This is a serious challenge for health care.

The presented series of papers analyzes the treatment of elderly patients admitted to the Department of General, Minimally Invasive and Elderly Surgeryin Olsztyn because of the symptoms of an acute abdomen. The control group for the presented cases are younger people hospitalized in the Department due to symptoms of acute peritonitis as well. The aim of the present dissertation is to analyze the treatment of acute surgical diseases in elderly patients, to determine whether the patient's age affects the treatment and results of treatment, and whether it is possible to determine the criteria for surgical treatment of older patients.

The physiology of elderly patients is significantly different from the physiology of younger people. With age, there is a decrease in myocardial contractility, respiratory reserve and glomerular filtration, abnormal swallowing, gastrointestinal motility, impaired immune responses, difficulties in movement, and finally, a frailty syndrome. These and other variations lead to changes n the metabolism of drugs, impaired wound healing, increased risk of perioperative complications, including death.

The series of papers allowed to conclude that older patients cannot be treated in the same way as younger patients, which results from the above described changes physiology. In the case of acute abdominal diseases, minimally invasive procedures should be performed, interfering with the organism in the least possible way. Analysis of patients undergoing surgery of acute appendicitis has shown that laparoscopy is a safe and good method of treating this disease in patients over 65 years.

It was shown that the POSSUM scale is a good tool for predicting the risk of deathand postoperative complications. One should avoid overzealous treatment that will not prolong the patient's life, and only will prolong the patient's suffering. If the risk of possible complications exceeds the potential benefits of surgery, consideration should be given to the use of palliative therapy, which relies on patient pain relief and care.

Analysis of elderly patients compared to younger patients showed that the age of the disease varies among the age groups. In older patients, due to a number of comorbidities that can cover up symptoms, the diseases often run in a different way to that observed in younger people. Patients older than 65 years show a longer period of hospitalization, which is associated with both delayed diagnosis and prolongation of hospital stay resulting often from lack of care and inability to function independently at home.

In addition, multidisciplinary teams qualifying older patients for treatment, including surgical treatment, should be created. These teams should consist of representatives of various specialties, including surgeons, anesthesiologists, internists, cardiologists, nephrologists, neurologists, neurosurgeons, as well as psychiatrists and psychologists.