Some statistical issues related to the monitoring of surgical quality will be reviewed in this presentation. The important role of risk-adjustment in healthcare, used to account for variations in the condition of patients, will be described. Some of the methods for monitoring quality over time, including a new one, will be outlined and illustrated with examples. The American College of Surgeons National Surgical Quality Improvement Program (NSQIP) will be described, along with a case study demonstrating significant improvements in surgical infection rates and mortality.