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# Implementation of Surgical Care Bundle to Reduce Surgical Site Infection Risk in Colorectal Surgery

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## Abstract

**Objective:** This study explored the effectiveness of SSI bundle indicators in the implementation of SSI bundle after the introduction of SSI bundle (such as blood glucose control, and skin cleansing and bathing) and the postoperative surgical site infection rate.

**Methods:** This study was conducted in a medical center in Taipei, Taiwan, with patients undergoing colorectal surgery. The hospital established a cross-disciplinary team in June 2016 to implement the SSI bundle program. Data were collected from January 2016 to December 2018, and participants were divided into control (107 people) and intervention (247 people) groups.

**Results:** The surgical site infection rate after SSI bundle intervention decreased from 13.7% to 6.7%. Furthermore, the SSI bundle compliance indicators (such as preoperative blood glucose testing and preoperative skin cleansing) improved significantly, confirming that smoking habits and emergency surgery are essential risk factors for postoperative surgical site infection.

**Conclusions:** The study results suggest that hospitals must integrate cross-disciplinary resources to introduce the SSI bundle program. This strategy can effectively improve the implementation compliance rate of the Care Bundle project and reduce the risk of postoperative surgical site infection.

**Keywords:** surgical-site infections, bundle care, surgical care quality