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PURPOSE: Creation of a temporary ostomy is a surgical tool to divert stool from a more distal area of concern (anastomosis, inflammation, etc). To provide a true benefit, the morbidity/mortality from the ostomy takedown itself should be minimal. The aim of our study was therefore to evaluate our own experience and determine the complications and mortality of stoma closure in relation to the type and location of the respective ostomy.

METHODS: Patients undergoing an elective takedown of a temporary ostomy at our teaching institution between January 1999 and July 2005 were included in our analysis, and the medical records were retrospectively reviewed. Excluded were only patients with relevant chart deficiencies and nonselective stoma revisions/takedowns. Data collected included general demographics; the type and location of the stoma; the operative technique; and the type, timing, and impact of complications. Perioperative morbidity was defined as complications occurring within 30 days from the operation. RESULTS: 156 patients (median age 45 years, range 18-85) were included in the analysis: 31 loop and 59 end colostomy reversals and 56 loop and 10 end ileostomy takedowns. Mean follow-up was 6 months. The overall mortality rate was low (0.65%, 1/156 patients). However, the morbidity rate was 36.5% (57 patients), with 6 (3.8%) systemic complications and 51 (32.7%) local complications. Minor wound infection (34 patients, 21.8%) and postoperative ileus (9 patients, 5.7%) were the most common surgery-related complications, but they generally resolved with conservative management. Anastomotic leak and formation/persistence of an enterocutaneous fistula (6 patients, 3.8%) were the most serious local complications and required reintervention in all of the patients. Closure of a loop colostomy accounted for half and Hartmann reversals for one third of these complications, as opposed to ileostomy takedowns, which accounted for only one sixth (1.8% absolute risk).

CONCLUSION: Takedown of a temporary ostomy has a low mortality but a nonnegligible morbidity. The stoma location (large vs. small bowel) has a higher impact than the type of stoma construction (end vs. loop) on the incidence and severity of complications.