Stoma reversal surgery has a ~40% risk of surgical site infection (SSI) at the original stoma site. The FY2022 cost per case for SSI related to colon surgery at ECU Health is $15,700. Current society guidelines recommend purse string closure technique, which has been shown to reduce but not eliminate SSI. Therefore, it is key to evaluate adjunctive techniques in addition to purse string closure in order to further reduce the risk of SSI after stoma reversal.

Closing the stoma reversal was performed with purse string closure with absorbable braided suture, leaving an opening of approximately two cm at the prior stoma site, and placement of a strip of betadine-soaked non-adherent pad within the stoma site. The non-adherent pad was taken out on post-operative day one and changed to wet-to-dry saline moistened gauze.

**METHODS**

Retrospective chart review of all adult patients who underwent stoma reversal by one surgeon at two tertiary care institutions between May 2016 - July 2022.

Primary outcome: Post-operative superficial SSI at the original stoma site.

Secondary outcomes: Post-operative readmission and hernia at the original stoma site.

**RESULTS**

**Study cohort:** 70 patients

**Demographics**
- Median BMI: 26.5 kg/m² [IQR 23.8-31.0]
- Median age: 57.0 years [IQR 44.5-66.3]
- Median time from stoma creation to takedown: 6 months [IQR 3-10]

- 57.1% Female (n=40)
- 21.4% Currently smoking (n=15)
- 15.7% Diabetic (n=11)

**Study Outcomes**
- Mean follow up of 16.5 months
- Surgical site infection 0%
- Readmission rate 7.1% (n=5)
- Stoma site hernia rate 14.3% (n=10)

**Indication for stomal creation**
- 55.7% Malignancy
- 22.9% Diverticulitis
- 11.4% IBD
- 10.0% NSTI, colonic inertia, obstruction, trauma

**REFERENCES**
