Materials and Methods

- **Introduction**
  - After harvesting ileum for GU reconstruction, closure of the mesenteric window (MW) is recommended to prevent the occurrence of internal herniation and high grade bowel obstruction.
  - The necessity of MW closure is controversial:
    - Bariatric and colorectal surgery literature both support and challenge the need for closure of the MW.
    - Potential harm of MW closure is schema of the bowel anastomosis due to inadvertent ligation of mesenteric vessels or creation of a mesenteric hernias.
    - Potential disadvantage of MW closure is tethering of the bowel segment which can limit its utility in GU reconstructive surgery.
    - No data regarding benefit of closure of the MW after harvest of ileum for urologic surgery.
    - Due to lack of proven benefit, in 2012 we stopped routinely closing the MW after harvesting ileum.
  - **PURPOSE:** Determine if non-closure of the MW is associated with increased incidence of gastrointestinal adverse events (GIAE), including:
    - Small bowel obstruction (SBO) or ileus requiring NG tube or laparotomy
    - Enterocutaneous fistula
    - Gastronemial fistula
    - Enterocutaneous fistula
    - Gastronemial fistula

- **Methods**
  - Retrospective review performed for cases from 2005-2015 performed by two reconstructive urologists (MLG and RCOC) at an academic center.
  - Inclusion criteria: age > 16 years, use of ileum only in reconstruction, stapled bowel anastomosis.
  - Exclusion criteria: prior bowel anastomosis, inflammatory bowel disease, undergoing concurrent bowel resection or ostomy creation unrelated to urologic surgery.
  - Retrospective review performed for cases from 2005-2015 performed by two reconstructive urologists (MLG and RCOC) at an academic center.
  - Statistical analysis performed with t-test, chi-square and multivariate logistic regression.

- **Results**
  - Early cases of SBO requiring laparotomy were due to factors unrelated to the MW.
  - No cases of internal herniation resulting in SBO identified in either cohort.
  - The necessity of MW closure is ischemia of the bowel anastomosis due to inadvertent ligation of mesenteric vessels or creation of a mesenteric hernias.

- **Discussion**
  - No increase in incidence of early or late GIAE in our cohort of patients with non-closure of the MW.
  - The necessity of MW closure is ischemia of the bowel anastomosis due to inadvertent ligation of mesenteric vessels or creation of a mesenteric hernias.
  - Several authors have suggested that small mesenteric defects (2-5cm) create a higher risk of internal herniation than larger defects created during right colectomy or transverse colectomy.
  - In subgroup analysis of early GIAE, the only cases of GI fistula, enterocutaneous leak, and stoma necrosis occurred in the MW closure group but the incidence of these events was low and did not meet statistical significance.
  - In subgroup analysis of late GIAE, there was no difference in the rates of SBO but there was a higher rate of GI fistulas in the non-closure group.
  - The third case occurred spontaneously but there were no intra-operative findings at time of repair to suggest non-closure of the MW playing a role in fistula development.

- **Conclusion**
  - No increased risk of overall early or late GIAE.
  - No increased risk of SBO.
  - No cases of internal herniation identified.

- **References**