Colorectal Unit
Wits Donald Gordon Medical Centre

December 2019

Dear Colleagues

As the year draws to a close we would like to report on the last years' activities of the Colorectal Unit (CRU) at the Wits Donald Gordon Medical Centre (December 2018-November 2019). To allow for comparison, this report also includes data from the last three years.

The CRU continues to grow. To our referral base - we are extremely grateful for your referral of patients to our Unit and for entrusting their care to us. We hope that you have been satisfied with the manner in which we have taken care of our shared patients.

Brendan Bebington, Nadine Harran and Dean Lutrin are the full time colorectal surgeons in the Unit. Dr Daniel Surridge is the head of the Colorectal Unit at Chris Hani Baragwanath Hospital and has a limited private practice at WDGMC.

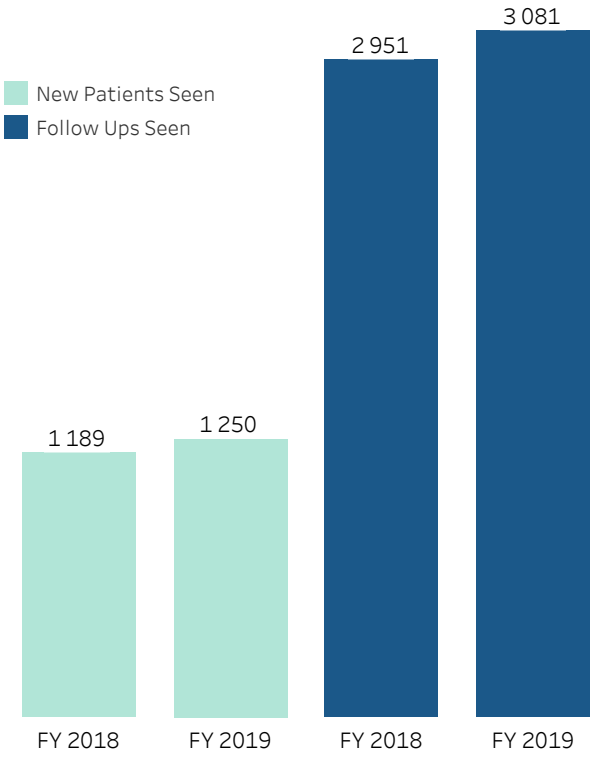
In addition to the core clinical services offered by our Unit we continue to participate in the following:
- Training of registrars (2 month rotation to the unit as part of the 5 year registrar rotation)
- Fellowship training in colorectal surgery (8 month rotation as part of a 2 year fellowship)
- Weekly journal club
- Weekly oncology MDT
- Monthly morbidity & mortality meeting
- Monthly pelvic floor MDT
- Clinical research & audit
- PhD and MMed supervision

The following page describes the number of outpatients seen in the Unit annually (2 years' data available), the total number of admissions and the admission diagnosis as well as the number of procedures per year over the last three years. Professor Julien Oettle retired at the end of 2018 leading to a decrease in the number of scopes performed in the Unit. Other surgeons and gastroenterologists at our hospital have picked up these cases.

The subsequent pages provide deeper insight into our experience with major colorectal resections.

Colorectal unit overview

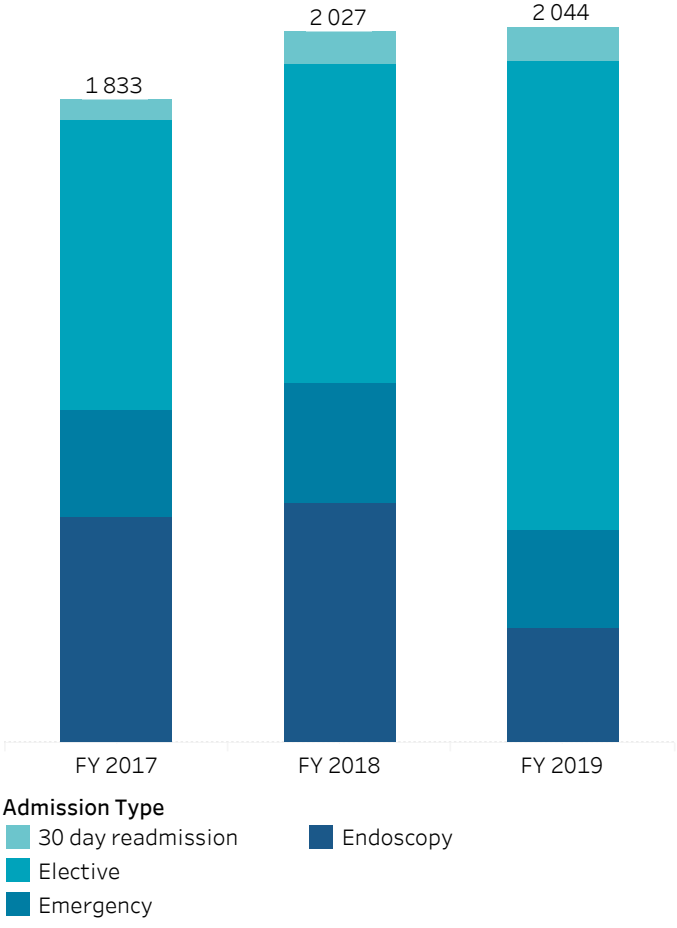
Outpatient consultations



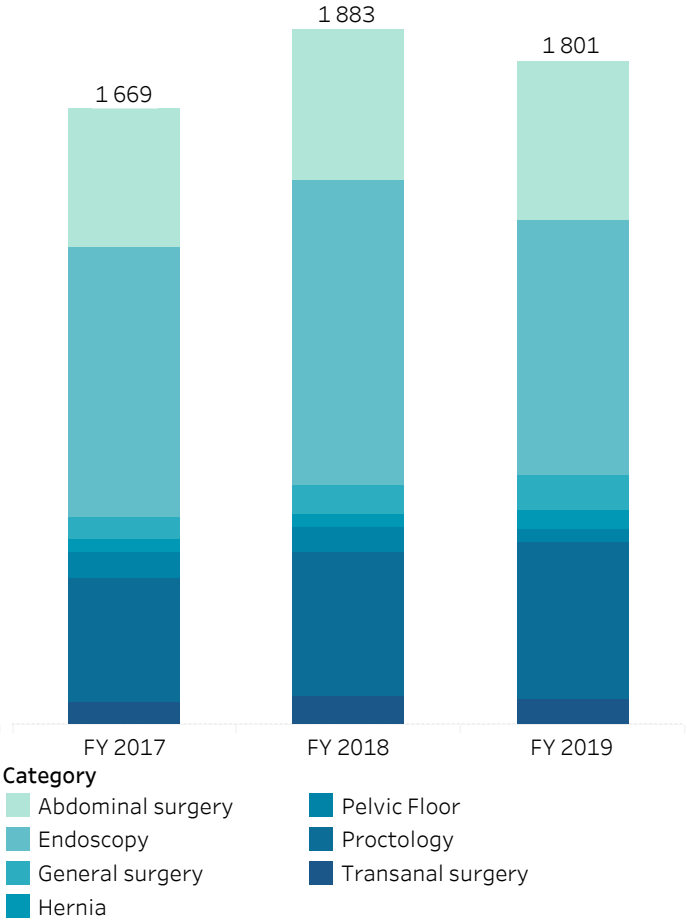
Admission diagnosis (top 20)

	FY 2017	FY 2018	FY 2019
Malignancy	442	431	436
Perianal sepsis	169	179	191
Haemorrhoids	85	133	154
Screening	85	92	153
Benign neoplasia	81	100	119
Abdominal pain	86	86	97
Anal fissure	65	86	84
Faecal incontinence	52	70	72
Bowel obstruction	28	29	68
Hernia	47	49	66
Inflammatory bowel disease	59	59	64
Rectal prolapse	72	71	63
GIT fistula	24	43	45
Unknown	171	206	40
Diverticular disease	30	34	34
Gastro-oesophageal reflux disease	43	30	31
Dehydration	7	21	28
Constipation	54	48	24
Change in bowel habits	29	48	24
Gastrointestinal bleeding	18	12	19

Admissions per year



Procedures per year

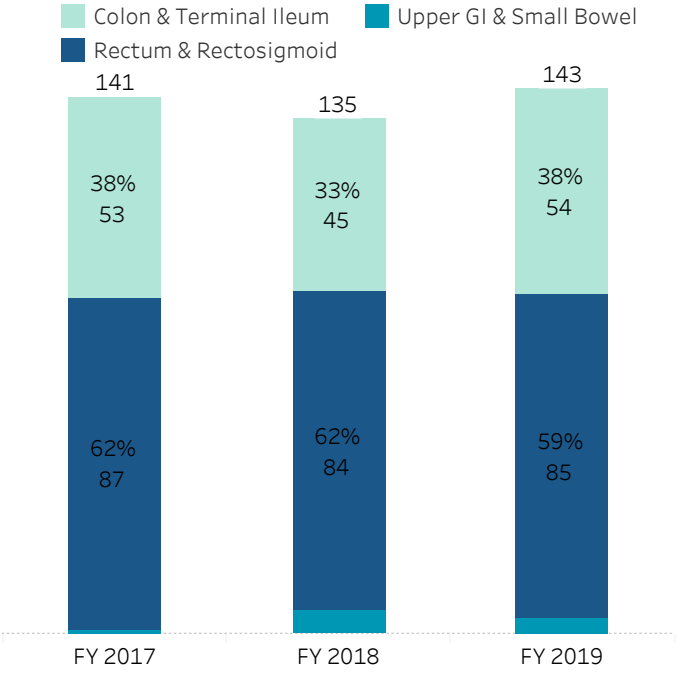


Colorectal Resections

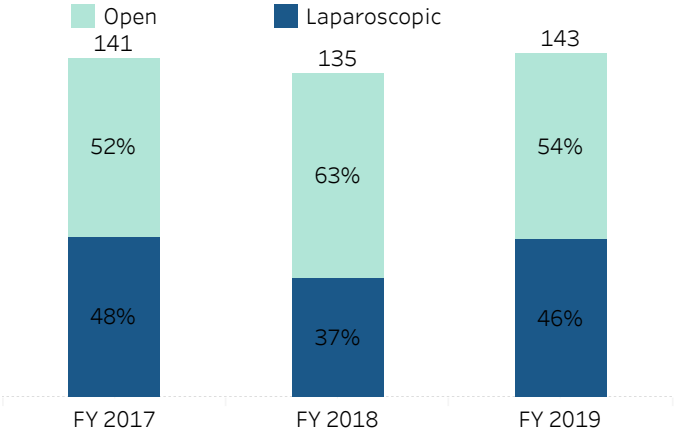
Surgical Site - Colon versus Rectum

Colorectal resections comprise a significant portion of the work performed in our unit. Over the last year we performed 143 elective colorectal resections.

Most colorectal units report rates of rectal resections of 25% of all colorectal resections performed. Distal sigmoid and rectal resections comprise approximately 60% of the resections performed in the unit. This is most likely explained by a referral bias.



Open versus Laparoscopic



Laparoscopic resections comprised 46% of our total resections over the last year. This statistic includes both multivisceral and redo resections, which are all performed as open operations in our Unit.

Indications for Resections

The majority of the colorectal resections in our Unit are performed for colorectal cancer. Of note, we perform very little elective surgery for diverticular disease. Due to an active interventional endoscopy service we also perform a low number of resections for benign adenomas and most of these are resected endoscopically.

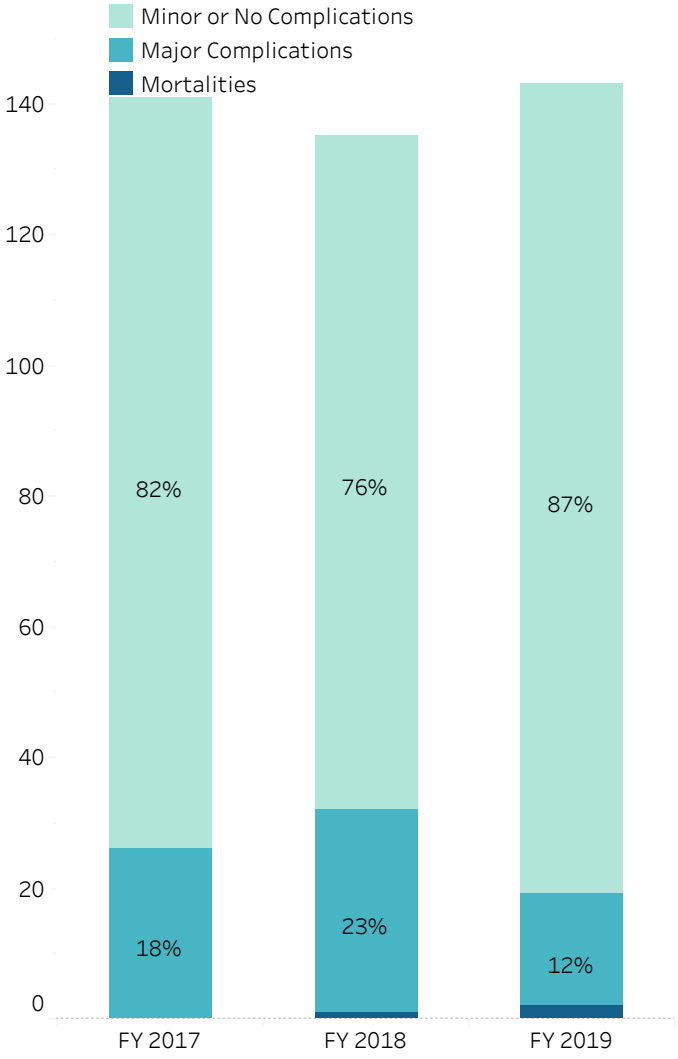
ICD 10 (group)	FY 2017	FY 2018	FY 2019
Colorectal Cancer	93	82	90
Bowel obstructions	5	4	9
Inflammatory bowel disease	9	14	8
Diverticular disease	3	2	6
Other	2	3	5
Intestinal fistulae	5	8	5
Benign colorectal neoplasia	12	7	4
Unknown	3	6	3
Other Malignancies	2	3	3

Colorectal Resections

Colorectal Resections - Complications

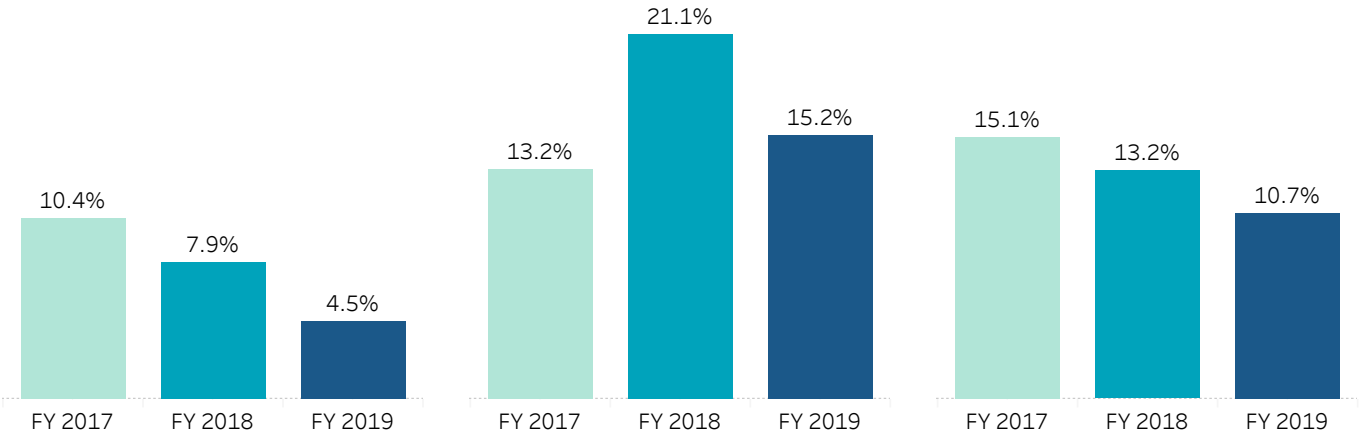
We classify our complications using the Clavien-Dindo system. Major complications are where a patient has a Clavien-Dindo grade 3 or 4 complication. These complications include post operative organ failure, the need for reoperative surgery or for post-operative interventional radiology. Anastomotic leakage, paralytic ileus and wound sepsis are well recognised complications in patients undergoing colorectal resections. The rates of these complications over the last year are described on this page and compared to the previous two years.

The average major complication rate for colorectal resections in a busy colorectal unit is appoximately 10%-20%. We are pleased to see a trend towards fewer complications in our unit over the last three years. We believe that an active prehabilitation program in our Unit has contributed towards fewer complications. The majority of patients undergoing an elective colorectal resection are seen preoperatively by a physician, a stomatherapist, and a dietician. Additionally, most patients meet with a clinical associate for an extended preoperative counselling and consent session.



Complication Breakdown

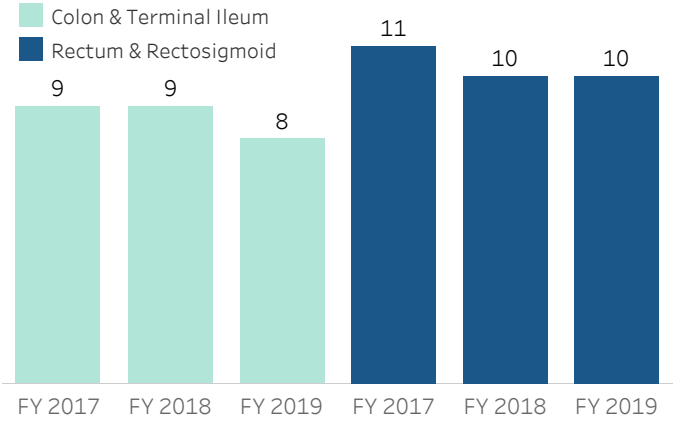
The rates of anastomotic leakage, paralytic ileus and wound sepsis (SSI) are described below. The rates of anastomotic leak and wound sepsis have decreased over the last three years but paralytic ileus remains an ongoing challenge.



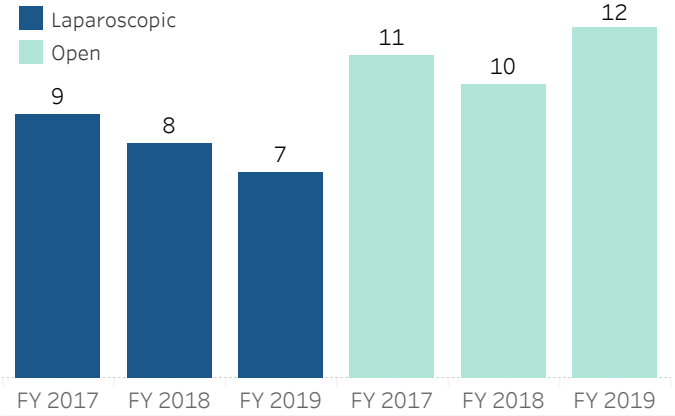
Leak Rate | Ileus Rate | SSI Rate

Colorectal Resections, Intestinal Failure & Redo Surgery

Median length of stay by surgical site (days)



Median length of stay by access (days)



Length of stay is a commonly measured metric of quality of care. Many social and scheduling considerations lead to longer lengths of stay than strictly necessary and its utility as a quality metric is limited. The durations in this report include the days that the patients spent in hospital prior to their operation - either as a part of prehabilitation or for scheduling reasons. Nevertheless, we are actively auditing our lengths of stay and trying to reduce these as much as possible.

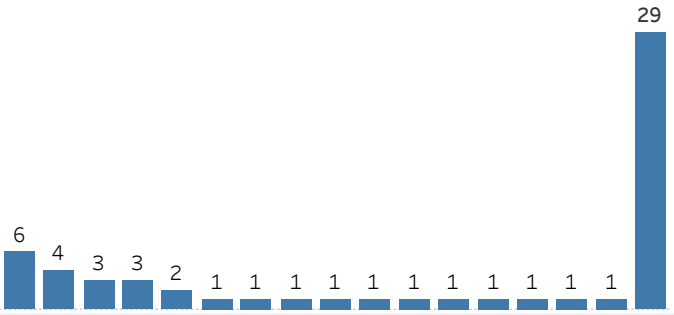
The median length of stay for colonic and terminal ileal surgery is slightly shorter than that of rectal and rectosigmoid resections.

The length of stay for laparoscopic surgery has been decreasing over the last three years. The length of stay for open surgery remains static.

The CRU has developed a specific interest in intestinal failure (IF) and redo surgery. We have started accepting these referrals from colleagues.

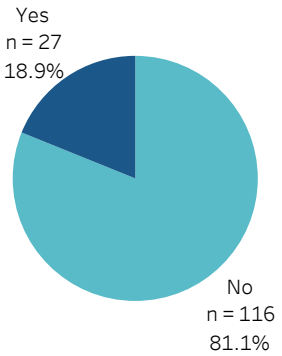
A total of 29 procedures were performed on patients with intestinal failure, but the majority of patients had one operation only. Nevertheless, these patients spend many months in hospital for management of wounds, nutrition, and sepsis.

Intestinal Failure - number of procedures per patient



Almost a fifth of the colorectal resections performed in the unit over the last year were redo operations. These are cases where the surgical site had been operated on before and there was now an indication for a reoperation at that same site. These are patients who, generally, have been referred into the unit from elsewhere. This includes indications such as local recurrences of cancer, repeat resections for Crohn's disease, and management of radiotherapy-induced complications.

Redo Surgery



The Colorectal Unit (CRU) has embarked on developing two new subspecialty interests - Intestinal failure and redo surgery.

We have started accepting intestinal failure/open abdomen patients from colleagues both in Johannesburg and from the rest of the country. We will gladly consider accepting any patient regardless of medical risk or comorbidities, although we are somewhat limited by the resources of a small team.

A biweekly intestinal failure multidisciplinary meeting has commenced to ensure that there is clarity on the treatment plan for each patient. These patients often spend a number of months in hospital. The ongoing critical aspects of the care of these patients include the avoidance of line sepsis, management of difficult enterocutaneous fistulae and optimisation of nutrition.

The unit has an open-access screening colonoscopy program. The patient's primary doctor is welcome to email us (endoscopybookings@dgmc.co.za) and we will arrange a colonoscopy. This program is restricted to reasonably healthy patients without any major comorbidities. If patients have significant medical comorbidites we would like to see them first for a formal consultation prior to any scopes being performed.

Once again, we would like to thank you for your support during 2019.

We aim to continue building the Unit and improve our surgical outcomes.

Our projects for 2020 include:
· Developing a shared endoscopy reporting tool.
· Enhancing the relationship with the hospital's Clinical Governance Team to 'close-the-loop' when addressing complications and adverse events.
· Fostering a closer working relationship with the gastroenterology and transplant Units with respect to the management of intestinal failure.

We wish you a restful holiday period and look forward to a busy, productive, and successful 2020.

Kind regards

Brendan Bebington Nadine Harran Dean Lutrin Daniel Surridge