Colorectal Unit
Wits Donald Gordon Medical Centre

December 2020

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 2019-November 2020). To allow for comparison, this report also includes data from the previous three years as well.

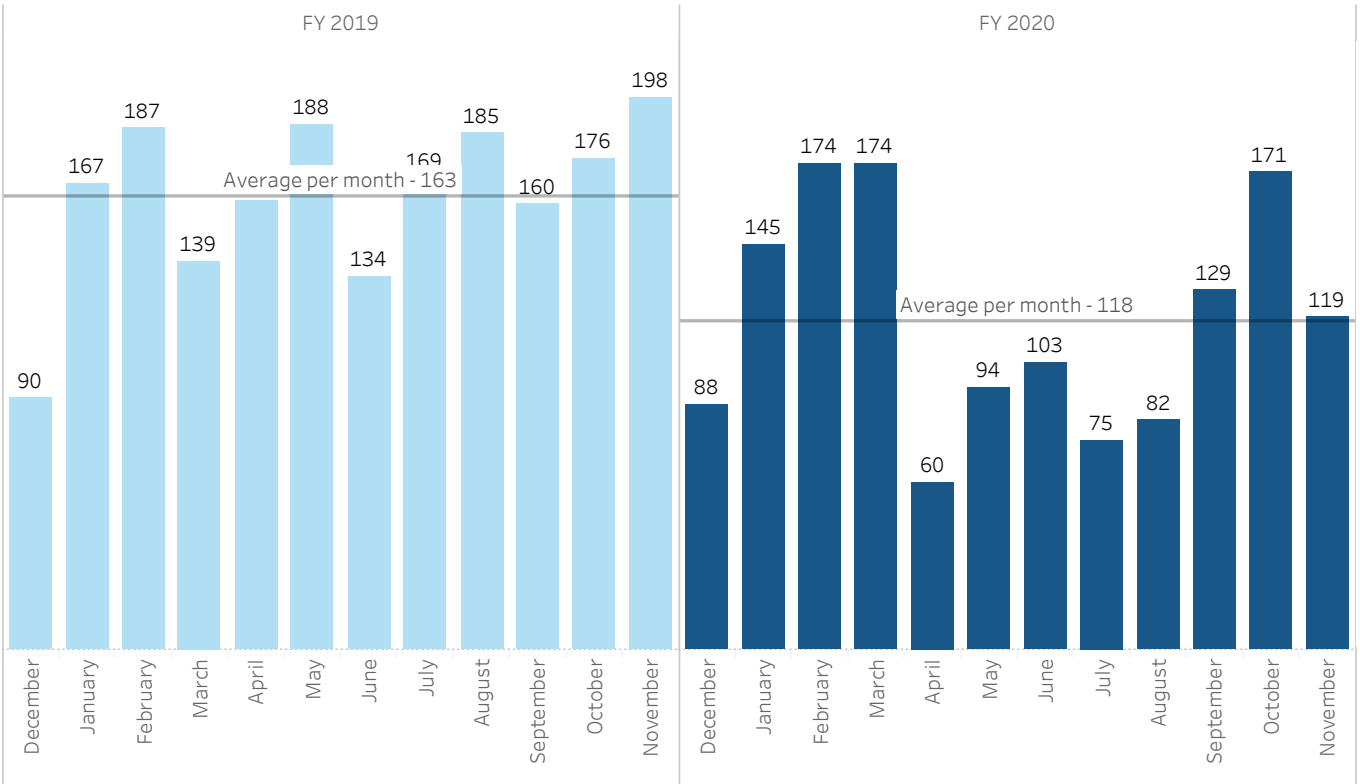
The Covid-19 pandemic had a predictable effect on our overall volumes. As demonstrated in this report, the number of admissions, endoscopies, and operations performed in the CRU dropped quite dramatically.

Our academic activities (morbidity & mortality meeting, GIT oncology MDT meeting, and our journal club) continued throughout the pandemic via Zoom. Similarly the registrar and fellow program continued as before. We had one fellow who wrote the certificate exam in colorectal surgery and he was successful. Of note, he is from Sudan and will be working in Klerksdorp for two years before returning to Sudan. We hope to continue building ties between our unit and the rest of Africa. There will be two local candidates who are due to the write the exam in 2021.

The Wits Donald Gordon Medical Centre does not have a casualty and our proportion of covid patients was lower than some other hospitals. The hospital has a large number of immune suppressed patients (particularly oncology and transplant) and this group of patients were protected quite carefully. We hope that our hospital can continue to provide appropriate care to patients with colorectal cancer and urgent colorectal problems in a relatively safe environment.

On the pages that follow we present the most important data from the CRU for the last year.

Admissions Per Month - 2019 compared to 2020

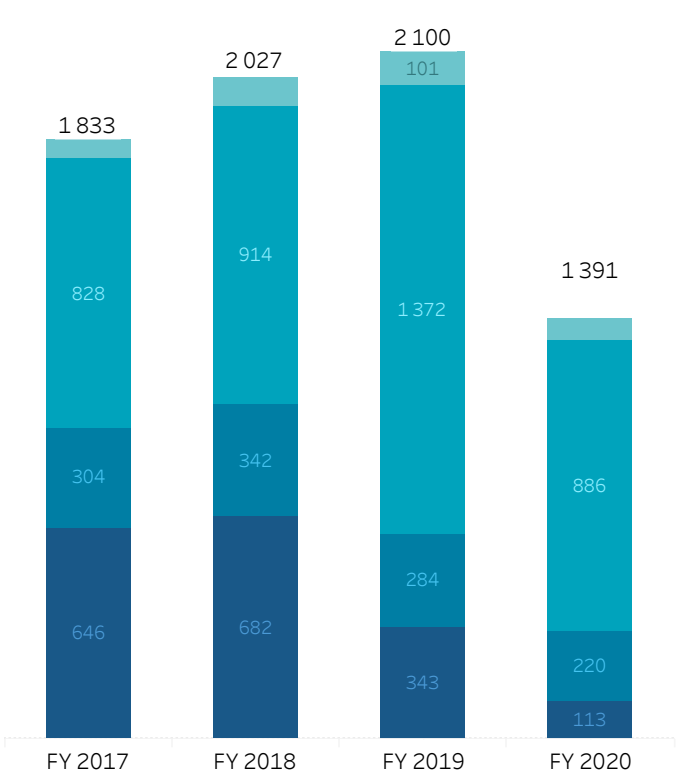


Colorectal unit overview

Admission diagnosis (top 20 for 2020 with other years for comparison)

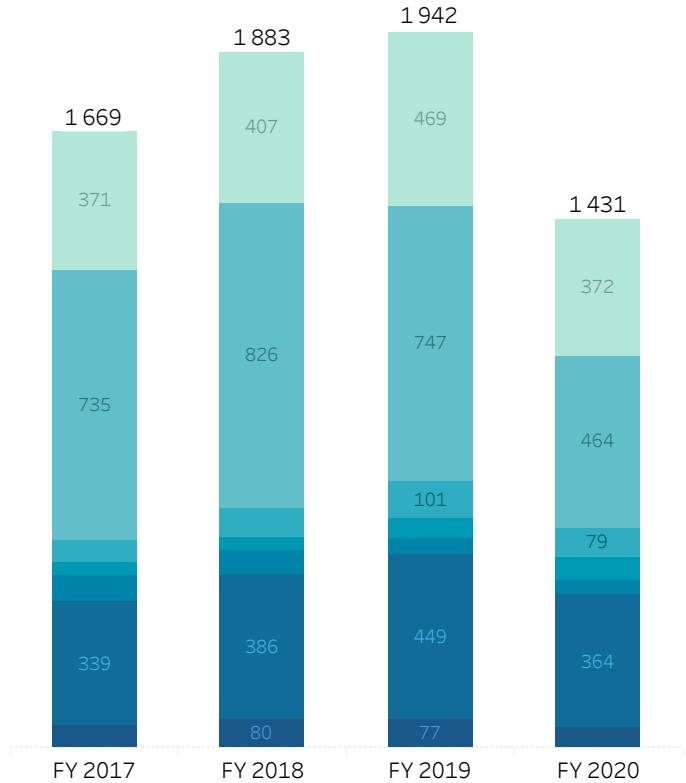
	FY 2017	FY 2018	FY 2019	FY 2020
Malignancy	442	431	454	299
Perianal sepsis	169	179	196	152
Other	171	206	41	98
Haemorrhoids	85	133	157	93
Anal fissure	65	86	86	70
Screening	85	92	156	68
Bowel obstruction	28	29	69	62
Benign neoplasia	81	100	122	55
Inflammatory bowel disease	59	59	66	54
Hernia	47	49	68	48
Abdominal pain	86	86	98	36
Rectal prolapse	72	71	65	28
Faecal incontinence	52	70	72	21
Dehydration	7	21	28	21
Gastro-oesophageal reflux disease	43	30	33	17
Diverticular disease	30	34	35	17
GIT fistula	24	43	45	16
Constipation	54	48	25	10
Change in bowel habits	29	48	25	10
Gastrointestinal bleeding	18	12	20	8

Admissions per year



Admission Type
- 30 day readmission
- Elective
- Emergency
- Endoscopy

Procedures per year



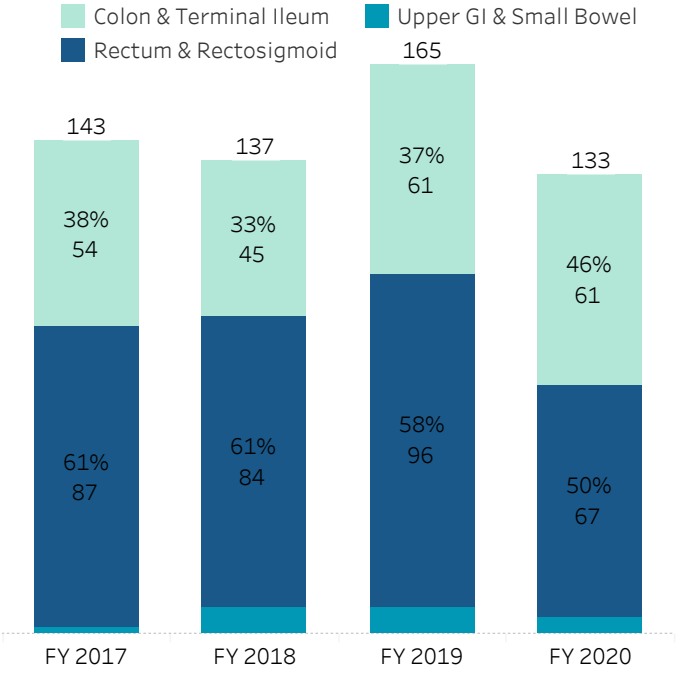
Category
- Abdominal surgery
- Endoscopy
- General surgery
- Hernia
- Pelvic Floor
- Proctology
- Transanal surgery

Colorectal Resections

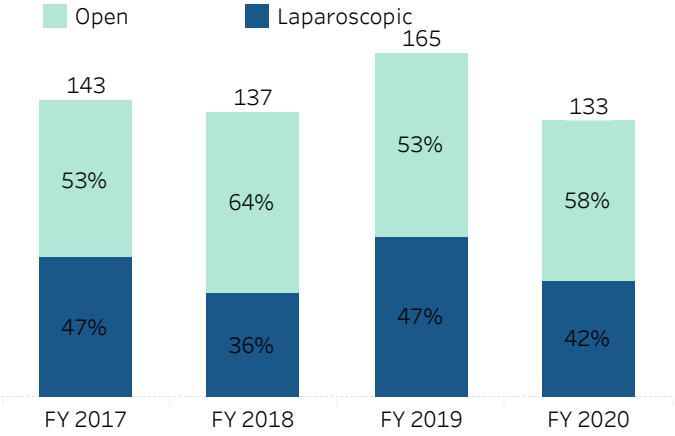
Surgical Site - Colon versus Rectum

Colorectal resections comprise a significant portion of the work performed in our unit. Over the last year we performed 133 elective colorectal/GIT resections.

During the coronavirus pandemic the ratio of colonic to rectal resections shifted towards more colonic resections and fewer rectal resections. This may reflect a change in referral patterns during the pandemic.



Open versus Laparoscopic



Laparoscopic resections comprised 42% 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	FY 2020
Colorectal Cancer	94	82	105	70
Inflammatory bowel disease	9	14	9	11
Bowel obstructions	5	4	9	7
Other	2	3	6	6
Intestinal fistulae	5	8	5	6
Benign colorectal neoplasia	12	7	6	6
Diverticular disease	3	2	6	5
Unknown	3	6	3	3
Other Malignancies	2	3	4	3

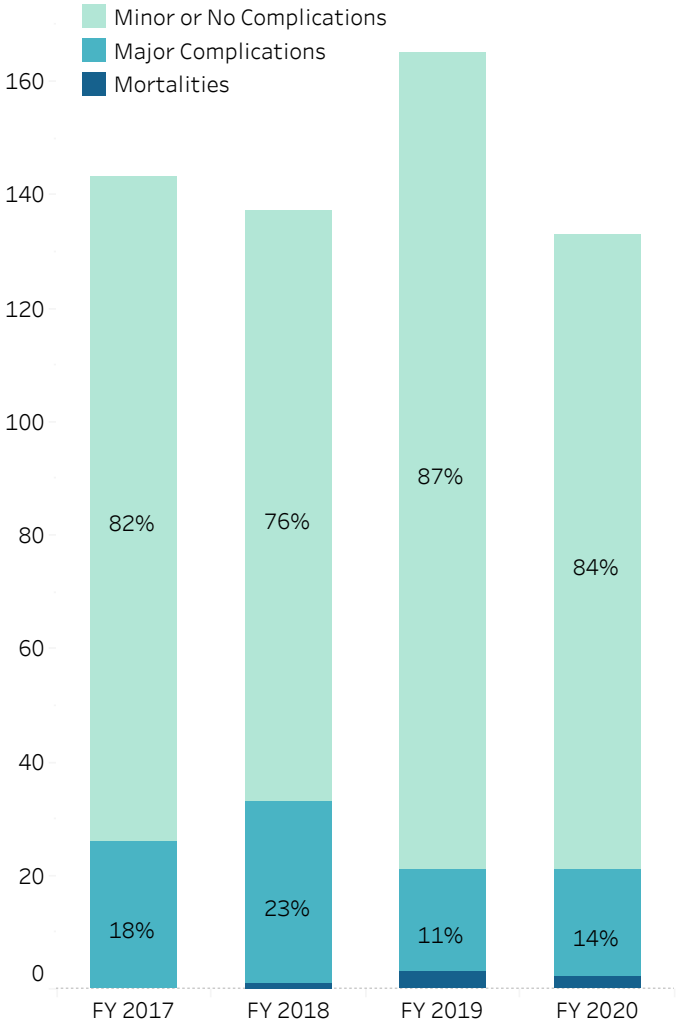
Colorectal Resections

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.

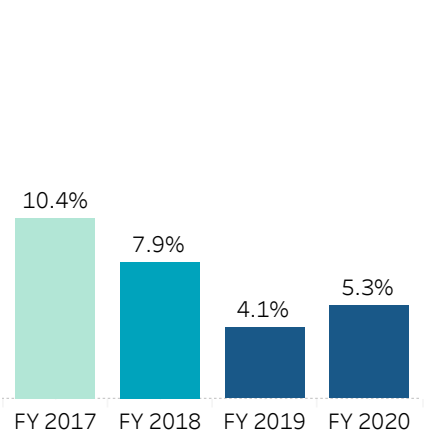
The average major complication rate for colorectal resections in a busy colorectal unit is appoximately 10%-20%. We believe that an active prehabilitation program in our Unit has contributed towards fewer complications. The majority of patients undergoing an elective colorectal resection are seen preoperatively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

The number of patients referred to our unit for redo surgery is increasing. These patients inherently seem to have higher complication rates and this appears to reflect in our data (although this is still being analysed).

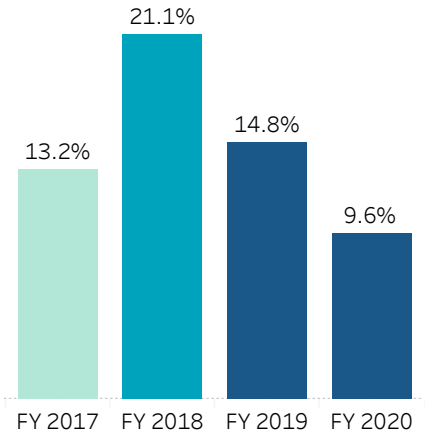


Complication Breakdown

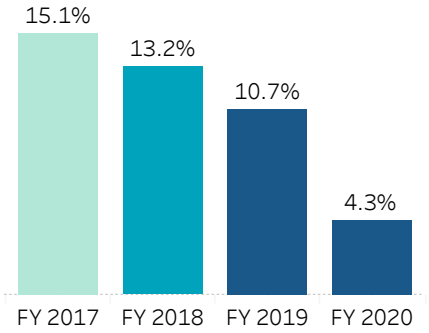
The rates of anastomotic leakage, paralytic ileus and wound sepsis (SSI) are described below. The rates of anastomotic leak and wound sepsis have decreased over the last few years but paralytic ileus remains an ongoing challenge.



Leak Rate



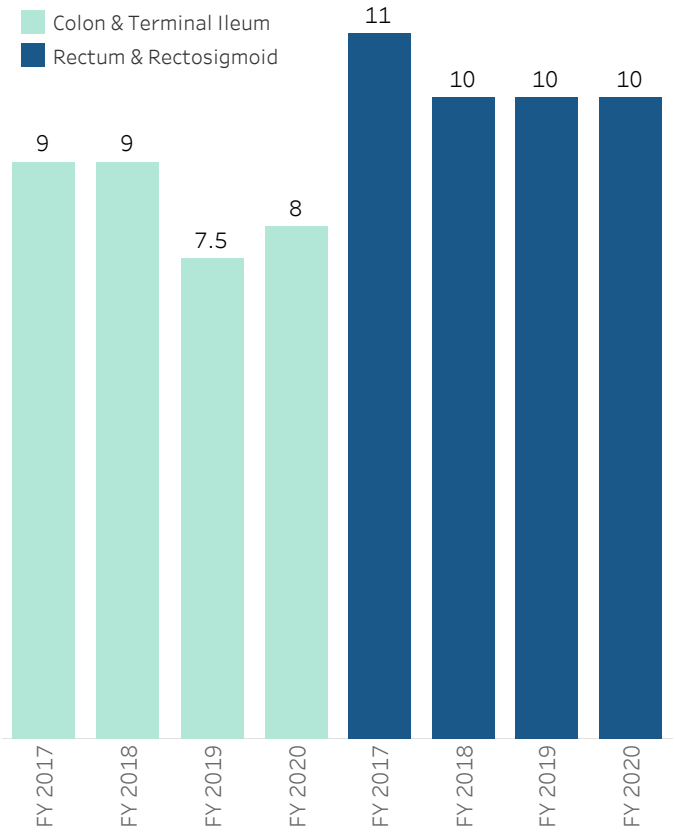
Ileus Rate



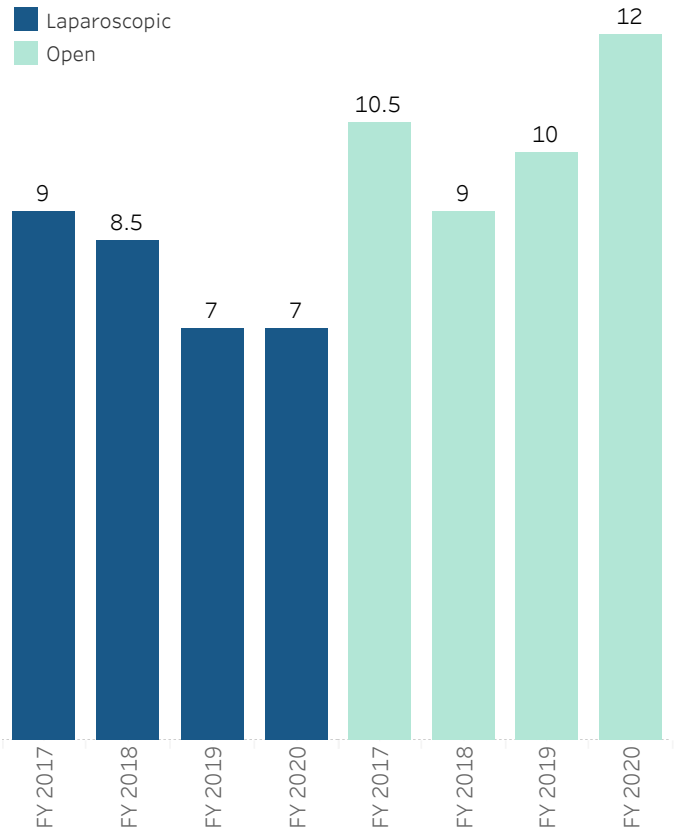
SSI Rate

Colorectal Resections - Length of Stay

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. Approximately 75% of our patients undergoing rectal surgery receive a stoma at the time of their operation which inevitably delays discharge from hospital - either for fluid loss or bowel function related reasons.

The length of stay for laparoscopic surgery has been decreasing over the last three years. The length of stay for open surgery increased during 2020. This may reflect a selection bias. If a patient is suitable for laparoscopic surgery this is usually the modality of choice. Many patients who undergo open surgery are redo or multivisceral resections and end up having a longer length of stay.

We also think that we were keeping patients in hospital a little longer during the pandemic because arranging a readmission should a patient need one was a complicated process.

The Colorectal Unit (CRU) managed to function fairly well during the pandemic. We are grateful to the leadership of the Wits Donald Gordon Medical Centre for ensuring that patients with non-coronavirus related problems had access to the hospital and its doctors. Nevertheless there was a decrease in numbers of patients that came through the unit during 2020.

The number of patients undergoing resections for colorectal cancer dropped, but the data reflect that a fair number were still performed.

Screening colonoscopy decreased dramatically during the pandemic. We are concerned about the long term impact of this. Similar to other colorectal units around the world, we have seen an increase in numbers of patients presenting with advanced or metastatic cancer. Many of these patients delayed seeking care due to the pandemic.

We have encouraged our patients to seek other forms of colorectal cancer screening - particularly fecal occult blood testing - and to act appropriately should a positive result be obtained.

At the time of writing this report we are in the midst of the second wave in South Africa. Unfortunately, we do not know how many more waves we will experience. It would seem that deferring care until 'after covid' may not be a prudent course of action.

We are working under the assumption that coronavirus will be with us for the foreseeable future, and we have reorientated our practices to take this into account. Virtual consultations are often difficult for colorectal patients but, where possible, these are being conducted.

Over the last year the service offered by our hospitalists has improved dramatically and we feel that our patients are receiving better quality and more efficient care due to these specialists.

The Clinical Governance Team at the hospital has an important role in oversight of the unit. We have regular meetings with this team to ensure ongoing quality of care.

Once again, we would like to thank you for your support and we hope that our shared patients - both new and old - will continue to receive the care that they need.

Brendan Bebington Nadine Harran Dean Lutrin Daniel Surridge