An estimated 43,030 new cases of rectal cancer are expected in 2018, according to the American Cancer Society (ACS). Colon and rectal cancer combined is the third leading cause of cancer-related deaths in men and women in the United States. Colorectal cancer is expected to cause about 50,630 deaths during 2018. Excluding skin cancers, colorectal cancer is the third most common cancer diagnosed in both men and women in the United States. The colon and rectum make up the large intestine (or large bowel), which is part of the digestive system. The rectum represents the final 6 inches of the digestive system. Colorectal cancer that starts in the rectum is called rectal cancer.

**Signs and symptoms**

Symptoms of rectal cancer can include a change in bowel habits (diarrhea, constipation), feeling that the bowel is not completely empty, having stools that are narrower than normal or different in shape, or, most frequently, having blood in the stool. Additional symptoms are abdominal discomfort, change in appetite, feeling very tired or unexplained weight loss.

**Tests**

Screening can help detect precancerous lesions as well as detect rectal cancer at an earlier stage when it is most treatable. The ACS recommends that people at average risk of colorectal cancer start regular screening at age 45. This can be done either with a sensitive test that looks for signs of cancer in a person’s stool or with an exam that looks at the colon and rectum (colonoscopy, CT colonography or flexible sigmoidoscopy). For those individuals considered at increased or high risk, initial screening might need to start before age 45, be screened more often and/or get specific tests. In addition, digital rectal exam and proctoscopy are used in the diagnosis of rectal cancer.

**Staging**

A process called staging is performed for each rectal cancer patient to determine the extent of disease at diagnosis. This includes an assessment of the primary tumor, involvement of regional lymph nodes and determination if distant metastatic disease is present. Treatment types and survival are based on the assigned stage. The AJCC Cancer Staging Manual provides the staging system used for physicians.

**Treatment**

Treatment for rectal cancer patients differs based on the patient’s stage at diagnosis. The patient’s age and general health also help determine the best treatment option. Surgery is usually the main treatment for rectal cancer. Radiation and chemotherapy are often given before or after surgery. The type of surgery performed depends on the stage of the cancer, where it is and the goal of surgery. The types of surgery include local transanal resection, transanal endoscopic microsurgery, low anterior resection, proctectomy with coloanal anastomosis, abdominoperineal resection or pelvic exenteration. A diverting colostomy is done with surgery often to relieve the blockage without removing the part of the rectum containing the cancer. It can help the patient recover enough to start other treatments such as chemotherapy.

**Survival rates**

According to the National Cancer Institute Surveillance, Epidemiology and End Results Program, 64.5% of patients diagnosed with colorectal cancer survive five years based on 2008-2014 data. Colorectal cancer accounts for 8.3% of all cancer deaths. A reported 42% of rectal cancer cases are localized or confined to the rectum and 88.7% of those cases have a five-year relative survival rate (SEER 18 2008-2014, All Races, Both Sexes by SEER Summary Stage 2000).
Novant Health Derrick L. Davis Cancer Center: Cases and outcomes

The National Cancer Database (NCDB) provides benchmarks and comparison data for over 1,500 Commission on Cancer-accredited facilities. The most current available data are for cases diagnosed in 2015. Following are demographic comparisons for Derrick L. Davis Cancer Center and the NCDB for 2015 rectal cancer cases.

Figure 1 shows the age group 60-69 had the most diagnoses followed by age group 50-59. Age at diagnosis is similar compared to the NCDB.

Figure 2 shows whites account for over 80% of rectal cancer diagnoses at Novant Health Derrick L. Davis Cancer Center. The NCDB is similar at 78%. Derrick L. Davis Cancer Center has a slightly higher incidence of rectal cancer cases among blacks (13%) compared to 10% in the NCDB.

Note: Percentage may not total 100% due to rounding.
2018 annual report site study: Rectal cancer

As part of our commitment to providing the highest quality care, a physician member of the cancer committee at the Derrick L. Davis Cancer Center performed a study to assess that nationally recognized treatment guidelines are being used in the formulation of the first course of treatment for patients with newly diagnosed clinical stage T3 rectal cancer. The initial treatment of patients diagnosed during 2017 was reviewed. A total of 15 cases were reviewed: seven were female (46.6%) and eight were male (53.3%). Patient age ranged from 32 to 79 years with 10 (66%) above the screening age of 45 and five (33%) less than 45 years of age. Initial treatment included neoadjuvant therapy in all 15 patients. Thirteen patients received capecitabine and radiation therapy; one patient received FOLFOX, capecitabine and radiation therapy; and one patient received short course radiation therapy. Of the 15 patients, 10 advanced to a low anterior resection and five had an abdominoperineal resection.

With reference to National Comprehensive Cancer Network (NCCN) Guidelines (NCCN-Rectal Cancer Version 3.2017) for initial treatment of clinical stage T3 rectal carcinoma, all cases (100%) were managed in accordance with evidence-based national guidelines.

Figure 3 shows Derrick L. Davis Cancer Center has comparable numbers to NCDB in stage at diagnosis. Stages 0, 2, 3 and 4 are slightly higher.

References
National Cancer Institute at the National Institutes of Health, Surveillance, Epidemiology, and End Results (SEER) Program. Available at [seer.cancer.gov](http://seer.cancer.gov).
National Cancer Institute at the National Institutes of Health, Colorectal Cancer - Patient Version. Available at [cancer.gov/types/colorectal](http://cancer.gov/types/colorectal).

Note: Percentage may not total 100% due to rounding.