**Oncology Committee Members 2018**

**Rolf Freter, MD PhD**  
Oncology Committee Chairman  
Chief, Medical Oncology

**Lana Kordunsky, M.D.**  
Pathology

**Steven Lane, MD**  
Chief Radiation Oncology  
Cancer Conference Coordinator

**Lisa Manera, MD**  
Medical Oncology  
Cancer Liaison Physician

**Reve Shields, MD**  
Medical Oncology

**Warren Salzman, M.D.**  
Chief, Radiology

**Deepti Seshadri, MD**  
Surgery

**Kristen Hong,**  
Pharmacy

**Susan Kearns, RN**  
Palliative Care Coordinator

**Siobhan Grant,**  
Director, Health Informatics/IT

**Wendy Foley, P.T.**  
Rehabilitative Services

**Hilary Lovell,**  
Community Relations, Marketing

**Maria Luiz, BS**  
Patient Navigator

**Kathryne McNichols**  
Community Outreach Coordinator  
Signature Healthcare/Vantage Oncology

**Kerri Mederios,**  
American Cancer Society Representative

**Kathryn Morin, R.D., LDN**  
Nutrition Services

**Christine Murphy, CNOR, RN**  
Quality Improvement Coordinator

**Susan Myers,**  
Service Line Director, Oncology, Greene Cancer Center

**Christine Rowan, LICSW**  
Coordinator, Social Work Services  
Psychosocial Services Coordinator

**Sarah Usher, RN, MSN, OCN**  
Radiation Oncology  
Clinical Trials Coordinator

**Kimberly Walsh,**  
Vice President Patient Care Services

**Avis Watson, BS, CTR**  
Manager, Cancer Registry  
Cancer Data Quality Coordinator
The Cancer Program at Signature Healthcare
Rolf Freter, MD, PhD, Chief, Medical Oncology and Hematology, Chair, Cancer Committee

At Signature Healthcare we are proud to be a leader in cancer care in the region. We strive to bring the highest level of multidisciplinary cancer care to our patients in Brockton and the surrounding communities. This involves coordinated interactions among multiple specialists (radiation oncologists, medical oncologists, cancer surgeons, oncology nursing, gastroenterologists, and pulmonologists, among others) with the goal of creating and implementing an effective individualized cancer treatment plan for every patient. Weekly 90-minute Tumor Board conferences, including participation by attending pathologists and radiologists, facilitate in-depth multidisciplinary discussions of cancer diagnosis and care.

We offer comprehensive diagnostic, treatment, and rehabilitative services for our cancer patients, including advanced imaging techniques, pain management, nutritional counseling, social work services, and pastoral care. A patient navigator is available to assist our patients to better cope with their diagnoses and treatments from physical, emotional, and financial perspectives.

An in-house Medical Oncology Division was formed in 2016. This addition greatly facilitates multidisciplinary care to our patients. The growth of Medical Oncology has been rapid, with providers evaluating over 1300 new patients with cancers and hematologic problems in the first full year of operation. Medical Oncology providers aim to provide next business day consultations for patients with a new diagnosis of cancer. Of particular importance is our affiliation with the Beth Israel Deaconess Medical Center in Boston. For the cancer program, this allows our patients access to appropriate ongoing clinical trials in Boston, Boston-based specialists for second opinion consultations, and highly specialized procedures, as needed.

With the opening of the Greene Cancer Center in October 2017, all Medical Oncology and Radiation Oncology services relocated under one roof. This proximity facilitates efficient multidisciplinary care for our patients.

In 2018, we recruited a third Medical Oncologist, Dr. Reve Shields, to the Greene Cancer Center. Dr. Shields completed her Fellowship at Brown, and has been in practice for 7 years. She has a particular interest/expertise in gastrointestinal malignancies. In 2018, we also developed and implemented a Multidisciplinary Breast Cancer Clinic. The Clinic meets weekly and allows women with a new diagnosis of breast cancer to be evaluated by specialists in Radiation Oncology, Medical Oncology, and (Breast) surgery in one session.

The primary goal of all staff in the Greene Cancer Center is to provide timely, efficient, evidence-based, personalized and compassionate care to all of our patients. The proximity of both Divisions in the new Greene Cancer Center allows providers and all cancer center staff to better meet this goal for the people of Brockton and the surrounding communities in 2019 and beyond.
Offering the Best in Breast Healthcare
Warren Salzman, M.D., Chief, Radiology

More than 230,000 women are diagnosed with breast cancer annually in the United States. The most effective way to fight this disease is through early and accurate detection.

In Signature Healthcare’s Comprehensive Breast Imaging Program, our breast imaging specialists are deeply committed to providing women with the highest level of breast imaging services. We perform and interpret more than 15,000 breast examinations and procedures every year, including screening and diagnostic mammograms, breast ultrasound, breast biopsies, and breast magnetic resonance imaging (MRI). We use the most advanced imaging technologies available today, including Digital Breast Tomosynthesis (3D) as well as contrast-enhanced mammography.

Signature Healthcare is again proud to be recognized by the American College of Radiology as a Breast Imaging Center of Excellence. This honor is awarded to breast imaging centers that achieve excellence by seeking and earning accreditation in the ACR’s voluntary breast imaging accreditation programs and modules in addition to the mandatory Mammography Accreditation Program.

The Radiology Department and Women’s Imaging team consider it a privilege to serve the Signature community of patients and providers. Signature Healthcare Radiology is also American College of Radiology accredited in Ultrasound, CT, MRI, Nuclear Medicine, and PET/CT.

To schedule a Mammogram appointment, call our dedicated Mammography Schedulers at 508-894-0440. Services are provided at both the main hospital campus, 680 Centre Street, Brockton, MA and Signature Medical Group, 110 Liberty Street, Brockton, MA.
Pathology Services
Desiree Carlson, MD, Chief of Pathology

The Pathology Department at Signature Healthcare Brockton Hospital is an integral part of the overall diagnostic and management course for patients with cancer. The Department has five Pathologists, all of whom are Board Certified by the American Board of Pathology in both Anatomic and Clinical Pathology. Any Pathologist with a time limited certificate has recertified, as necessary, and participates in the maintenance of a certification program. In addition, Dr. Carlson voluntarily recertified in 1997, 2007 and 2014. Three of the Pathologists are additionally certified in Cytopathology.

All pathologists are licensed to practice medicine in Massachusetts and must be able to certify they have 100 CME credits for each two year cycle.

The Pathologists routinely are present at the beginning of the patient’s course. We work closely with the Radiologists in the CT and Ultrasound areas to render immediate evaluations of fine needle aspirations to determine if the area of interest was adequately sampled. We then direct the Radiologists to take additional core biopsy samples and place them in tissue culture media for flow cytometry for suspected lymphoproliferative disease or formalin for solid tumor diagnosis with immunohistochemical staining, as needed. The pathologist provides a written intra-procedural consultation and diagnosis which is scanned into the PACS system.

In the Operating Room, the Pathologists collaborate with the surgeons to evaluate specimens for margin status during surgery to determine if adequate tissue was removed. Frozen sections and cytologic evaluations are made. Breast carcinoma specimens are oriented, inked and sent to Radiology to determine if the lesion or clip is in the resected specimen. If required, the specimen is then sectioned while the patient is under anesthesia to determine if there are adequate margins. For other cancer surgeries, the Pathologists are available to evaluate margins or open specimens to show the surgeon in the actual surgical suite. The Pathologists frequently go into the OR to see the specimen in situ and to discuss the case with the surgeon. All intraoperative consultations are called to the surgeon or presented in person. The diagnoses are written on NCR paper and a copy is placed in the patient’s medical record. The method of communication to the surgeon is included on the consultation form.

In some breast cases, the Pathologists examine a sentinel lymph node intraoperatively. Two Pathologists independently evaluate the touch preps or smears to ensure no metastatic cancer is missed and also that there are no false positives which would lead to unnecessary axillary dissection.

The Pathology Department routinely utilizes the American College of Surgeons/College of American Pathologists synoptic reporting protocols for all invasive carcinomas and also for DCIS in the breast. In April 2016, we began using electronic cancer checklists which require the pathologist to complete all the required data elements or the report will not finalize. By using these, the required data elements for treatment decisions are consistently reported in the same format by all Pathologists. This also allows patients to have their slides and our report sent out for a second opinion since all required data elements are reported.

The Pathology Department was an early adopter for the proper handling of resected breast specimens to ensure that prognostic marker results are valid. All breast specimens for both women and men except for reduction mammoplasties have the time excised and time in formalin written on the specimen label either in the OR or Radiology for core biopsies. Specimens are then fixed for at least 6 and no more than 72 hours
in formalin. The cold ischemia and formalin fixation times are strictly followed. ER and PR are obtained for all DCIS cases. ER, PR and Her2 are obtained for invasive breast cancer and FISH is performed for all Her2 2+ cases.

The Pathology Department is actively involved in presenting cases at the weekly Tumor Board/Cancer Conference. One Pathologist takes microscopic photographs of each case. These are displayed both on the screen in the conference room and can also be viewed by participants who call in from outside. When the cases are discussed, the Medical Oncologists will determine which molecular or genetic tests are required to select therapeutic agents. The Pathologist will then send out the appropriate slides or blocks and report the results in an addendum to the original pathology report.

Two pathologists are the member and alternative member of the Breast Leadership Committee. We all work collaboratively to coordinate and streamline the care of women diagnosed with breast cancer. Two pathologists are similarly the member and alternative member for the Oncology Committee. The two pathologists who are members of the Breast Leadership Committee must obtain breast related continuing medical education credits by attending a national meeting, by online, or written methods.

The Pathology Department is accredited by the College of American Pathologists.

The following quality indicators for cancer are studied in the Pathology Department:

- Adequacy of synoptic report required data elements
- At least 12 lymph nodes for colon carcinomas
- Breast cold ischemia time and formalin fixation time
- Sentinel lymph node touch prep diagnosis intraoperatively as compared to permanent sections
- CAP ER/PgR prognostic marker proficiency tests
- CMS PQRS studies 99 for breast, 100 for colon, 249 for Barrett’s esophagus, 250 for radical prostatectomy, 251 for Her2/ER/PR, 395 for lung biopsy, 396 for lung wedge/resection and 397 for melanoma reporting
- Correlation studies between current malignant diagnosis as compared to any previous cytology studies
- Frozen section to permanent section correlation.

All pathologists participate in diagnosing unknown slides in College of American Pathologists proficiency testing programs for gynecologic (Pap smears) cytology, non-gynecologic cytology, fine needle aspiration cytology and surgical pathology.

There are criteria for second pathologist blinded review of cases including all new malignancies and core biopsy cases for possible malignancy.

When a resection case is booked for the operating room, the pathologist on call obtains information on the prior day to include review of the previous biopsy slides if it was performed at Signature Healthcare, obtaining outside slides and reports, review of any radiologic studies and review of other information in Meditech. Surgeon offices are called to obtain office notes and whether any pathology had been diagnosed elsewhere.

Pathologists facilitate special studies on cancer cases with slide and block selection for Oncotype DX, MSI, B&T studies and molecular testing and include results in an addendum to the original pathology report.
There are requirements for communication of malignant and unexpected results including calling the clinician and faxing the results to ensure there is at least one additional method of communication other than the report in Meditech.

When a cancer case is sent out for a second opinion based on a request from a clinician or the patient, the outside diagnosis is compared to our original diagnosis. Our report is amended if there is a significant difference. Data is reported as part of the Ongoing Professional Practice Evaluation (OPPE) to the Quality Resources Department and is used in the recredentialing process for each pathologist.
2018 was a successful year for our CT lung screening program. Working together with Dr. Robert Weinstein, Chief of Family Medicine, we saw a significant increase in initial screenings from past years. The lung screening program was a regular topic on the Signature Medical Group physician meeting agenda. Lung screening was added to the patient care tracker so upon arrival for a physical exam, a patients' PCP must check off whether they have been offered lung screening. The Radiology Department also added an alert in the Signature Medical Group electronic medical record on current smokers to provide a visual cue for the PCP. There are still areas where we strive for improved performance. We look forward to implementing a more efficient electronic system which will alleviate hours of time consuming manual data entry. We are assessing the need for a dedicated Lung Screening Patient Navigator to ensure our patients receive the best continuity of care. A Navigator, in conjunction with our growing Thoracic Surgery department, will help eliminate the leakage to outside facilities for treatment. The Navigator can also assist Imaging patients when a new diagnosis of cancer has been identified.

Low Dose CT Lung Screening Statistical Data:
Patient Navigation
Maria Odete Luiz, BA

Signature Healthcare’s Oncology Patient Navigator works together with Women’s Imaging to identify all patients who have been informed of an abnormal screening result. The navigator receives information about each patient and is alerted to any barriers to care identified by the radiology technicians such as a personal history of breast cancer, language barrier, or needle phobia. Armed with this information the navigator makes a personal call to each patient to offer help and support. The navigator is able to educate, alleviate concerns, and identify barriers to access and make certain the patient secures a timely appointment for follow-up. Fortunately, for most patients with an abnormal finding, a biopsy results in a non-cancerous diagnosis. However, for those who receive a diagnosis of malignancy, contact with the navigator is already established and they are available to help meet the patient’s individual needs.

Patients with a solid support system and an uncomplicated treatment course receive phone calls from the navigator to check in to make sure they are doing well as they progress through their treatment and into survivorship. For patients who are anxious, alone or experiencing a rocky treatment course, the navigator’s role is to help make the treatment less stressful and to alleviate barriers to the patient’s care. The navigator may contact a patient’s medical oncologist when they learn the patient is experiencing distress due to family issues, transportation problems, language, and financial issues or when the patient appears to lack understanding about treatments, is confused about appointments or expressing fear. Using community and hospital resources, the navigator works to remove barriers causing distress to the patient.

Patient responses to this program have been rewarding. Comments such as “Thank you for all that you have done to help,” and “I appreciate that you took the time to speak with me, I don’t feel so confused anymore,” “you are an angel Maria”, or “I’m very happy you called” are just a sample of the positive feedback received.

The navigator is part of the Oncology team at Signature Healthcare and provides the team with patient updates, current potential barriers to care, or insurance issues. This team approach aligns with Signature Healthcare’s philosophy of patient centered care. Part of the navigation program involves conducting annual Patient Needs Assessments (PNA) to identify possible barriers to patient care. A recent PNA helped the Navigator identify Signature Healthcare Oncology patients’ greatest barrier to care; transportation to/from their oncology appointments. Through a collaborative effort, Signature Healthcare was able to obtain a grant funded program that provides free transportation for all of Signature Healthcare Oncology Patients. Alleviating this barrier to care has decreased patient no-show rate and improved overall patient care.

Outreach and education is another important aspect of Patient Navigation at Signature Healthcare. Breast health talks, free screenings for patients and educational sessions have been provided to patients and caregivers within our community.
Multidisciplinary Oncology Conferences
Steven Lane, M.D., Chief, Radiation Oncology, Cancer Conference Coordinator

At Signature Healthcare, Oncology Conferences are held weekly for all sites. All conferences are open to the entire medical staff. Conferences are multidisciplinary for review and discussion of treatment options and possible clinical trial participation.

Fifteen percent of the annual caseload must be presented at the multidisciplinary oncology conference. Signature presents over 60% of the annual caseload. Presentations may include newly diagnosed patients prior to initiating treatment, patients completing initial treatment to discuss the need for further treatment and surveillance, or patients previously discussed that need further treatment recommendations. Discussions include a review of disease presentation, personal and family history of malignancies, pertinent imaging studies, pathology specimens and laboratory studies, and surgical interventions. Treatment recommendations are based on the National Comprehensive Cancer Network (NCCN) guidelines.

Breast cancer is the leading cancer diagnosis among women at Signature Healthcare. Our goal is to present every patient case with newly diagnosed breast cancer for review and discussion of treatment options.

Our multidisciplinary team consists of representatives from Radiology, Pathology, Surgery, Medical and Radiation Oncology, Rehabilitative Services, as well as the patient navigator, quality improvement coordinator and clinical trials coordinator. To promote continuity of care, conferences are available via secure web access to allow primary care physicians and specialists who cannot be present on site to join the conference and participate in patient discussions.
Clinical Trials
Sarah Usher, RN, MSN, OCN®

The purpose of conducting clinical trials is to gather important clinical information about disease processes and to develop new and effective treatments for cancer. Our clinical affiliation with Beth Israel Deaconess Medical Center allows our patients potential participation in clinical trials. At Signature Healthcare, oncology patients are screened for potential trial eligibility and are referred to Beth Israel Deaconess Medical Center in Boston for further evaluation and enrollment. Additionally, we track any patients who have participated in tissue studies.

Rehabilitative and Support Services: Oncology Rehabilitation Program
A cancer diagnosis can be traumatic, and so can life-saving treatments. Chemotherapy, radiation therapy, and surgery can harm health and cause serious medical problems that interfere with daily function and well-being. Survivors are commonly plagued with symptoms such as fatigue, weakness, insomnia, memory loss, fear, anxiety and depression. A team of clinicians was assembled and completed a comprehensive oncology Rehab program developed by Dr. Julie Silver, assistant professor at Harvard Medical School, breast cancer survivor and co-founder of Oncology Rehab Partners. This team was certified in January of 2012 and is available to provide physical and psychological rehabilitation so survivors can recover more quickly and more completely than they would otherwise. Feeling well and being able to resume normal day-to-day activities is essential to enjoying a good quality of life.

Newly diagnosed patients may want to increase their strength and endurance and prevent future medical problems; survivors living with cancer as a chronic disease may come to us for help managing treatment-related conditions; and individuals who are cured or in remission may enroll in our program with the goal of resuming their pre-cancer activities.

In addition the outpatient department is certified in the provision of Lymphatic drainage. This provides a vital service at the local level to patients suffering from lymphedema.

Our Oncology programs rehabilitation services provided in the hospital setting and the outpatient setting are covered by most insurance plans, thus allowing an increased number of survivors to take part in the program. Rehabilitation services for cardiac and orthopedic patients have been standard practice for some time. Providing rehabilitation services for cancer patients in treatment, in remission or living with cancer is essential to enjoying a good quality of life.
American Cancer Society Collaboration
Kerri Medeiros, American Cancer Society

Signature Healthcare and the American Cancer Society share a commitment to our community to improve the quality of cancer care, increase awareness about the importance of cancer prevention and early detection, and provide patients and caregivers with information on cancer treatment and the resources and services available.

The American Cancer Society is a global grassroots force of 1.5 million volunteers dedicated to saving lives, celebrating lives, and leading the fight for a world without cancer. Through our partnerships with hospital systems such as Signature Healthcare Brockton Hospital, we aim to increase access to care for cancer patients and expand our cancer control initiatives such as Colorectal Cancer Screening and HPV vaccination.

Community Outreach
Kathryne McNichols

Cancer Support
A cancer diagnosis means having to cope with emotional, physical and spiritual challenges as well as medical treatments. Although each patient’s experience is unique, a support system and reliable resources are critical for every patient. A good support system can help a patient feel less alone, help them to better understand their options for treatment and foster a sense of belonging, all of which improve a patient's quality of life. Finding the right type of resources and support is important, especially for patients who are alone.

Signature Healthcare offers different types of support designed to address individual patient needs. From a meeting with our patient care team to our patients receiving support, education, advocacy and individual attention.

Spiritual support is available for patients in both the inpatient and outpatient setting. For patients who qualify, financial assistance is available through the hospital’s Hope Fund. Signature Healthcare offers assistance for patients experiencing transportation challenges, language barriers, work-related issues and financial or insurance problems and works with our community to find resources to support patients and their families.

Free Cancer Screenings for the community
On Wednesday 9/19/2018 Signature Healthcare and ENT Specialists hosted a free head and neck cancer screening. This is free screening was promoted to uninsured and under insured members of the community. Nine people attended and 9 screenings were done. One person needed a thyroid ultrasound that did not result in a cancer diagnosis. This person was told to follow up with her PCP as needed. All 9 attendees were educated on the importance of smoking cessation, sunscreen, alcohol intake and other risks.

Cancer Education in the Community
On 10/24/2018 Signature Healthcare hosted its 5th annual Ladies Night. Educational tables were hosted by primary care, OB/GYN, Women's Imaging and the Greene Cancer center. Ten mammograms scheduled, 2 OB/GYN appointments, 2 PCP appointments and 14 Vein Screenings were done. There were approximately 82 attendees.

**Survivorship Support**

According to the Livestrong Foundation “more than 10 million cancer survivors live in the United States today, and three out of four families will help care for a family member with cancer.” Support for survivors is an important need that is too often overlooked. Signature Healthcare is addressing that on multiple fronts. Through our hospital-based programs as well as our community affiliations and partnerships with The American Cancer Society, Community Servings, and the Livestrong Program at the YMCA, we are able to link survivors and their family members with programs to address their needs as they move through the process of diagnosis, treatment and into survivorship.

On 10/28/2018 from 1-4pm, we held “The Survivor's Brunch: Alive, Grateful and Surviving,” designed to uplift men and women who are survivors of cancer through a celebration infused with laughter and gratitude for life. The event included a keynote speaker, Mary Waldron, a comedic host, a beauty station, and awards ceremony. In partnership with Grown Women Real Talk, founded by Yolanda Lewis, the mission is to celebrate triumphant living over cancer with encouragement, strong relationships, and community support in a way that inspires life beyond survival. The event took place at Thorny Lea Golf Club in Brockton. Signature Healthcare made a donation to the event to help defer costs.

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**Cancer Registry Statistical Summary – Reflecting 2017 Data**

Avis Watson, CTR, Cancer Registrar

The Signature Healthcare Cancer Registry maintains data on all patients diagnosed and/or treated for cancer. All cancer cases are reported to the Massachusetts cancer registry as required by law.
A total of 597 cancer cases were added to the Signature Healthcare Brockton Hospital Cancer Registry database in 2017. Of those, 524 patients (88%) were diagnosed and/or received all or part of their first course of treatment at Brockton Hospital (analytic cases). Sixty-nine patients (12%) were diagnosed elsewhere and received subsequent treatment at Brockton Hospital (non-analytic cases).

Five Major Cancer Sites
Breast (96 cases) cancer remains the most frequent site of cancer diagnosed and/or treated at Signature Healthcare Brockton Hospital in 2017 and this is comparable with national data. Lung

Age Distribution All Sites
Male and Female
A total of 597 cases were diagnosed and or treated in 2017, 286 were males (48%) and 311 (52%) were women.
Standard 4.6 Monitoring Compliance with Evidence-Based Guidelines
Jesse MacVicar, MD

Treatment evaluation for LCIS of the breast at Signature Healthcare – 2017
A total of 4 patients were diagnosed with LCIS alone of the breast in 2017.

- Age range: 46-52 yrs old - a 46, 47, 50 and 52 yr old at time of diagnosis
- Laterality: 0% Right, 100% Left
- Diagnosis procedure: 50% core bx (1 stereotactic, 1 MRI-guided)
  50% excisional bx (1 NL - not amenable to stereotactic, 1 excisional - abscess drainage)

100% of patients dx'ed with LCIS on core bx underwent excisional bx.
100% of patients were recommended chemoprevention: 75% accepted Tamoxifen, 25% declined
*** All patients diagnosed with LCIS alone of the breast were treated in accordance with NCCN guidelines ***

Treatment evaluation of DCIS of the breast at Signature Healthcare – 2017
A total of 10 patients were diagnosed with DCIS alone of the breast in 2017

- Age range: 42-79 yrs old ((40-49 =2, 50-59 =4, 60-69 =2, 70-79 =2)
- Laterality: 50% Right, 50% Left
- Receptor status: 80% ER+/PR+, 10% ER+/PR-, 10% ER-/PR-
- Diagnosis procedure: 20% U/S-guided core bx, 30% stereotactic bx, 50% excisional bx w/NL (4 not amenable to image-guided core bx and 1 requested by pt)

Surgery: 90% BCS and 10% SM/SLN exc, 40% re-excision (75% neg pathology on re-excision)
  100% - achieved margins >2mm (or no further breast tissue - fascia/skin)
Radiation: 80% completed XRT (20% not recommended radiation - 1 secondary risk of pulmonary toxicity, 1 since s/p mastectomy)
Chemoprevention: 80% recommended Tamoxifen - (7 accepted, 1 declined), 20% not recommended Tamoxifen (1 ER-, 1 comorbidities/weakly ER+/s/p mastectomy)
*** All patients diagnosed with DCIS alone of the breast were treated in accordance with NCCN guidelines ***
Colon Program Report
Chris Murphy, Surgical Program Manager

**Introduction:** Colorectal cancer (cancer that starts in the colon or rectum) is the third most commonly diagnosed cancer, and the second leading cause of cancer death in men and women combined in the United States. The American Cancer Society estimates that 95,520 people will be diagnosed with colon cancer, 39,910 people will be diagnosed with rectal cancer, and 50,260 people will die from this disease in 2019¹. Full recovery after major abdominal surgery can be a long and arduous journey and has been studied by several Medical and Surgical Societies including Early Recovery after Surgery (ERAS) and the International Association for Surgical Metabolism and Nutrition (IASMEN). Studies are aimed at developing and presenting a consensus for optimal perioperative care in colonic surgery and to provide recommendations for an evidenced-based enhancement protocol, known as Early Recovery after Surgery (ERAS)².

**Focus:** ERAS for colon surgery is a multimodal peri-operative care pathway designed to achieve early recovery for patients undergoing colorectal surgery. ERAS represents a shift in perioperative care in two ways. First, it examines traditional colorectal surgery practices and may replace these with evidenced-based best practices; secondly, it is comprehensive in its scope covering all areas of the patient experience from pre-op through the surgical process. The intent is to reduce surgical stress, maintain postoperative physiological function, and enhance mobilization after surgery. Studies have shown this care model reduced rates of morbidity, enhanced faster recovery and resulted in shorter lengths of hospital stay.

The ERAS pathway starts pre-operatively in the surgeon’s office and follows the patients through the continuum of care. The pathway is managed by a team of surgeons, anesthesiologists, nurses, dietitians, physical therapists, respiratory therapists and mid-level providers and is designed to minimize adverse outcomes that could result from the surgical procedure. “A recent study shows that ERAS programs allow patients to recover much faster after their operation and thus reduces the need for hospital stay by about 30%, or more than 2 days, after major abdominal surgery, and despite early discharge re-admissions did not increase”³. The study also contends that “as much as 40% of particular complications, such as those related to the lungs and cardiovascular systems, are also markedly reduced”⁴.

¹ https://www.ccalliance.org/colorectal-cancer-information/statistics-risk-factors
² ERAS Society 2019
**Actions:** Signature Healthcare opted to implement the ERAS program in July 2017, with Dr. Seshadri appointed to the Colorectal Surgeon Chair. Educational sessions were conducted for SHBH and SMG staff, so they could be prepared to internally publicize the program, as well as speak to the program expectations and desired outcomes. In 2018 the SHBH colorectal taskforce added additional care models recommended by the ERAS Society into the medical electronic record.

**Data:** In 2018 there were twenty-three patients who were included in the SHBH ERAS program. Patients were followed for thirty days postoperatively. In that timeframe none of the elective colorectal patients developed post-operative complications, nor were they readmitted. Average length of stay for those procedures was approximately five hospital days. Two elective colon patients were noted to have a post-operative ileus, which did not increase their length of stay.

**Conclusion:** Due to the disturbing widespread incidence of colorectal cancer, there is a continued need for medical professionals to implement new strategies for the diagnosis and treatment of this disease. SHBH implemented the ERAS Society guidelines for colorectal procedures in 2017 and continued to further develop the program throughout 2018. The number of individuals with colorectal cancer treated at SHBH in 2018 was twenty-three. The data for 2018 shows some favorable intended outcomes for this small sample size; further study is needed as literature consistently illustrates that the larger the sample size, the more likely the data will represent a population’s true outcome.

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<th>Recommendations or Actions taken:</th>
<th>Evaluation of effectiveness of those actions:</th>
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<td>Colon Program</td>
<td>2018 Year End Summary</td>
<td>Colorectal ERAS Outcome Review</td>
<td>See attached Patient bedside check list</td>
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<td>• Patient with cancer diagnosis (23)</td>
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<td>Colon</td>
<td>• Planned procedure same day of admission</td>
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<td>• Colon cancer planned procedures (18)</td>
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<td>Rectal</td>
<td>• Planned procedure same day of admission</td>
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<td>• Colorectal cancer planned procedure (1)</td>
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**Outcomes:**
- PO Ileus - 2/18
- PO Delirium - none
- PO Fluid Overload - none
- PO Readmit - none
- Complication – Laceration
- Ave LOS 5 days

- PO Ileus - none
- PO Delirium - none
- PO Fluid Overload - none
- PO Readmit - none
- Complication – Laceration
- LOS 8 days
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<td>• Colon cancer emergent procedures (4)</td>
<td>Outcomes:</td>
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<td>• PO Ileus - n1/4</td>
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<td>• PO Delirium - none</td>
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<td>• Ave LOS 9 days</td>
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<td>Rectal</td>
<td>• Colorectal cancer emergent procedure (1)</td>
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SHBH Colon Surgery Patient Bedside Recovery Checklist

**Evening of Surgery**
- Plan for the day
  - Up in chair for 30 minutes
  - Urinary catheter overnight

Please let your nurse know if you have any of the following - any of the days you are in the hospital.
- Nausea
- Vomiting
- Severe Pain

I did my spirometry and coughing
- Afternoon
- Evening

I did my exercises
- Afternoon
- Evening

I had my circulation boots on while in bed

It is important that when you are in the hospital that you, the staff and visitors keep hands clean at all times to prevent post-surgery infection.

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**Post-surgery day one**

**Plan for the day**
- Start a list of questions to ask your surgeon in preparation for discharge hospital day three.

**Out of bed to chair meal times**
- Breakfast
- Lunch
- Dinner

**Bathroom**
- Urinary catheter removed
- Passed urine
- Passed gas
- Bowel movement

I did my spirometry and coughing
- Morning X3
- Afternoon X3
- Evening X3

I did my exercises
- Morning
- Afternoon
- Evening

I took a walk around the halls
- Morning
- Afternoon
- Evening

I had my circulation boots on while in bed

Please call your surgeon's office if you have any concerns

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**Post-surgery day two**

**Plan for the day**
- Review your diet with your nurse or dietitian

**Out of bed to chair meal times**
- Breakfast
- Lunch
- Dinner

**Bathroom**
- Passed urine
- Passed gas
- Bowel movement

I did my spirometry and coughing
- Morning X3
- Afternoon X3
- Evening X3

I did my exercises
- Morning
- Afternoon
- Evening

I took a walk around the halls
- Morning
- Afternoon
- Evening

I had my circulation boots on while in bed

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**Post-surgery day three**

**Plan for the day**
- Surgeon will remove your catheter
- You can take a shower
- Plan on going home
- Asked my questions

**Out of bed to chair meal times**
- Breakfast
- Lunch
- Dinner

**Bathroom**
- Passed urine
- Passed gas
- Bowel movement

I did my spirometry and coughing
- Morning X3
- Afternoon X3
- Evening X3

I did my exercises
- Morning
- Afternoon
- Evening

I took a walk around the halls
- Once
- Twice

I had my circulation boots on while in bed

When you go home it is important that you and your family members wash your hands to prevent