St. Elizabeth's Medical Center

A STEWARD FAMILY HOSPITAL

Cancer Program Annual Report 2020

Cancer Program and Cancer Registry
Prepared by the Cancer Care Committee

St. Elizabeth's Medical Center
A STEWARD FAMILY HOSPITAL

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CHAIRMEN'S REPORT
2020

St. Elizabeth's Medical Center (SEMC) is one of eleven hospitals in the Steward Health Care System in Massachusetts, and has become a tertiary referral center for the other Steward hospitals. St. Elizabeth's maintains its commitment to academic endeavors and teaching as well as its commitment to excellence in patient care. There is specialty expertise in the following surgical subspecialties:

Peter Catalano, MD, *Head and Neck Surgery*
Claudius Conrad, MD, PhD, *Hepatobiliary Surgery*
John Durfee, MD, *Gynecologic Oncology*
Jairam Eswara, MD, *Urology*
Matthew Ingham, MD, *Urology*
Paresh Mane, MD, *Thoracic Surgery*
Jan Rothschild, MD, *Breast Surgery*
Deborah Schnipper, MD, *Colorectal Surgery*
Jana Simonds, MD, *Colorectal Surgery*
John Wain, MD, *Thoracic Surgery*
Rohan Wijewickrama, MD, *Head and Neck Surgery*

Medical Oncology and Hematology patients are seen in the Dana Farber Cancer Institute (DFCI) satellite located on the fifth floor of the Cardinal Cushing Pavilion at SEMC. This unit includes an infusion center and has been a DFCI-licensed facility on the SEMC campus since June 2014. The division remains committed to the accrual of patients to clinical trials under the direction of Wendy Loeser, RN, OCN. Seventy-two patients were enrolled in 89 clinical trials in 2020.

The Cancer Care Committee met four times in 2020 and remains involved in every aspect of cancer care at St. Elizabeth's. The following members of the committee resigned this year:

Pat Callen, RN, *Quality Improvement*
Abigail Ciampa, NP, *Survivorship Care Plan Coordinator*
Nicole Sanders O'Toole, *American Cancer Society*
Keri Singer, *Community Outreach*

The Committee welcomes the following new members to the committee for 2020:

Olga Kozyreva, MD, *Medical Oncology*
Lindsay Nicholson, *American Cancer Society*

We would like to thank the members of the Committee for their dedication to ensuring excellent multidisciplinary care for our patients. We would also like to extend our thanks to Daria James, CTR, and Laurie MacDougall, CTR, for their hard work and dedication to the cancer program.

Respectfully submitted,

Jan Rothschild, MD
Christopher Lathan, MD, MPH
Co-Chairs

CANCER CARE COMMITTEE

The Cancer Care Committee at St. Elizabeth's Medical Center (SEMC) is composed of specialists in all areas dealing with cancer. The committee, which includes both physician and non-physician members, meets quarterly. Its agenda includes reviewing all cancer-related activities at SEMC, as well as overseeing the multidisciplinary care of cancer patients in the institution. As required by the American College of Surgeons/Commission on Cancer, the committee provides leadership and is responsible for various activities that are aimed at ensuring patient-centered care. Some of these activities include monitoring of genetic counseling and risk assessment, overseeing the provision of palliative care services, coordinating rehabilitation services and oncology nutrition services, quality and improvement studies, community outreach and prevention programs, multidisciplinary cancer conferences, addressing barriers to care, encouraging clinical research, publishing of outcomes, and the ongoing use of cancer registry data. The Cancer Care Committee is considered the cornerstone and most important component of an Accredited Hospital Cancer Program.

The following were members of the Cancer Care Committee in 2020:

Co-Chairpersons: Jan Rothschild, MD, *Breast Surgery*
Christopher Lathan, MD, MPH, *Medical Oncology*

Daria James, CTR, *Cancer Coordinator*
Pat Callen, RN, *Quality Improvement*
Abigail Ciampa, NP, *Survivorship Care Plan Coordinator*
Claudius Conrad, MD, *Hepatobiliary Surgery*
Jairam Eswara, MD, *Urology*
Paul Fallon, MD, *Primary Care*
Kristen Halvorsen, RN, *M7 Nursing*
Beth Herrick, MD, *Radiation Oncology*
Margaret Huber, MA/CCC-SLP, *Rehabilitation Services*
Hallie Kasper, NP, *Palliative Care*
Lauren Kohler Darcy, RPT, *Rehabilitation Services*
Fran Leonard, RN, MSN, AOCN, *Oncology*
Wendy Loeser, RN, OCN, *Medical Oncology*
Ali Niakosari, MD, *Radiology*
Tessa Niven, *Administrative Director, DFCI@SEMC*
Kevin O'Donnell, MD, *Surgery*
Phoebe Olhava, MD, *Radiology*
Abigail Osei-Tutu, MSW, *Hematology/Oncology Social Services*
Christine Pantano, *Dir. of Respiratory Care and Outpatient Services*
Aleksandr Perepletchikov, MD, *Pathology*
David Ricklan, MD, *Pathology*
Nicole Sanders O'Toole, *American Cancer Society*
Deborah Schnipper, MD, *Colorectal Surgery*
Keri Singer, *Community Outreach*
Paul Smith, *Chief Operating Officer*
Diane Sullivan, RN, MSN, *M7 Nursing*
Rick Tetreault, *Director of Radiology*
John Wain, MD, *Thoracic Surgery*

The Cancer Care Committee met four times in 2020:
January 15, May 20, August 19, and November 18.

CANCER REGISTRY REPORT

St. Elizabeth's Medical Center Cancer Registry is a data system designed for the collection, management, and analysis of data on persons with a diagnosis of a malignant disease. Data are also maintained on several benign brain and central nervous system tumors as well as other diagnoses that are on a list of "Reportable Diagnoses" as recommended by the Cancer Care Committee and the Massachusetts Cancer Registry. The Cancer Registry works collaboratively with the Cancer Care Committee in maintaining SEMC's Commission on Cancer accreditation. The standards required for accreditation cover a broad range of activities including the setting of annual programmatic and research goals, educational programs, effective quality studies, community-based prevention and screening programs, and lifetime follow-up of patient. The ultimate goal of the Cancer Registry is to provide the medical staff at St. Elizabeth's Medical Center with the data that will enable them to assess the results of their diagnostic and therapeutic efforts, therefore providing quality care of the cancer patient.

In 2020, the Cancer Registry at St. Elizabeth's Medical Center abstracted 723 new cases of cancer, of which 690 (95.4%) were analytic and 33 (4.6%) were non-analytic. The analytic cases provide us with the most accurate data and they are the cases used when we complete studies for the American College of Surgeons/ Commission on Cancer (ACoS/CoC). The non-analytic cases are cases that were originally diagnosed and received all first course of treatment elsewhere and were seen here at the time of persistent, recurrent, or metastatic disease.

The major sites at St. Elizabeth's Medical Center for 2020 were lung, prostate, breast, pancreas, and corpus uterus. Most of these cases come from surrounding areas, with the majority coming from the Allston/Brighton area.

Every year, the Cancer Registry receives and responds to requests for data from physicians, residents, and outside organizations such as the Massachusetts Cancer Registry and the Commission on Cancer. Many of these requests result in published papers or lectures using the Registry data. As in any department, quality management plays an important role. Quality management is upheld with monthly physician chart review by members of the Cancer Care Committee and built-in software edits used by the Massachusetts Cancer Registry and the National Cancer Data Base at the Commission on Cancer. In addition, the Registry voluntarily participates in the Rapid Cancer Reporting System (RCRS) through the National Cancer Data Base. RCRS is a reporting and quality improvement tool that provides real-time clinical assessment of hospital adherence to National Quarterly Forum-endorsed quality of cancer care measures for breast and colorectal cancers. These data are monitored on a monthly basis.

As always, the focus of the Cancer Registry is to keep current with case abstracting and follow-up while continuously complying with CoC Standards. The Registry continues to stage cancers with SEER Summary and AJCC staging. In the coming year the Registry looks forward to ongoing changes in cancer registry data collection, including Eighth Edition AJCC staging, new Solid Tumor Rules, revisions to SEER Summary Staging, and Extent of Disease rules, as well as associated software changes.

Respectfully submitted,

Daria M. James, CTR
Cancer Coordinator

Figure 1. Analytic Cancer Cases, 2020: Comparison of Age at Diagnosis by Site

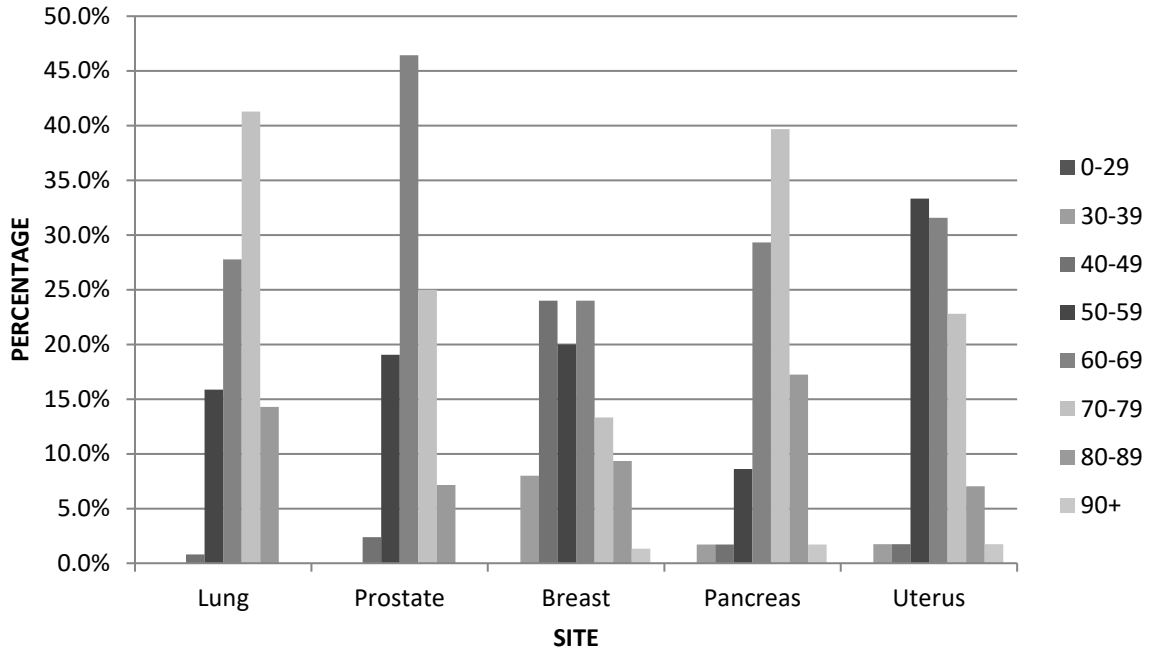

Figure 2. Analytic Cancer Cases, 2020: Comparison of Stage at Diagnosis by Site

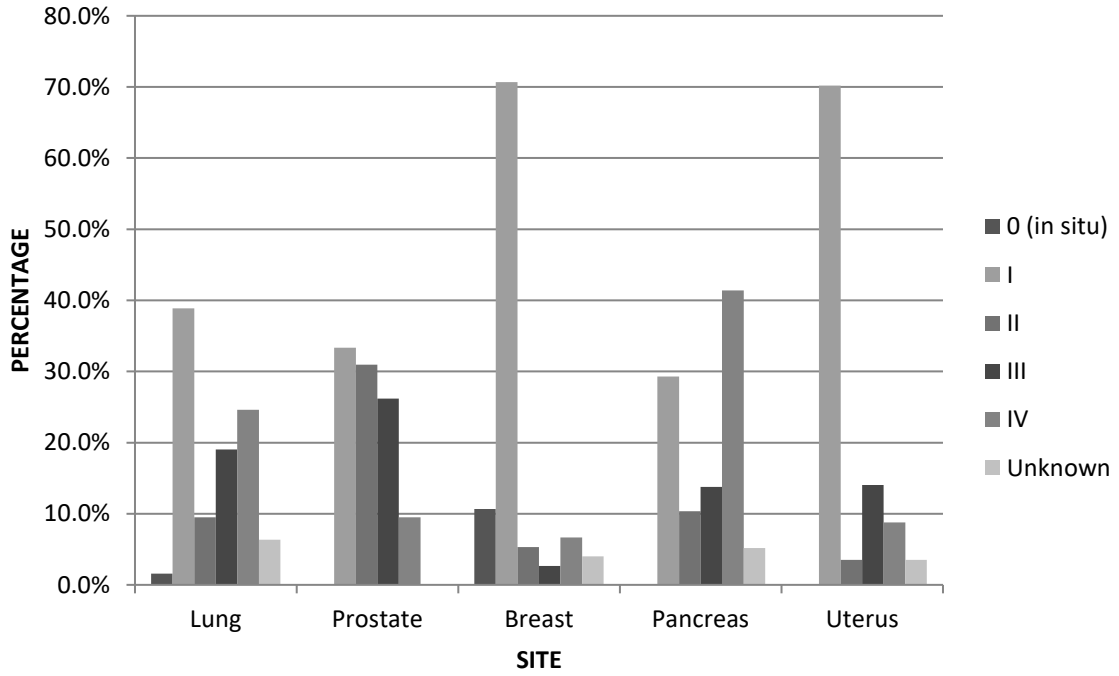

Table 1. Analytic Cancer Cases, 2020: Comparison of Initial Treatment by Site

Treatment	Lung (n=126)	Prostate (n=84)	Breast (n=75)	Pancreas (n=58)	Uterus (n=57)
SRG only	46.0%	34.5%	6.7%	8.6%	52.6%
RAD only	3.2%	4.8%	0.0%	1.7%	1.8%
SYSTEMIC only	10.3%	7.1%	6.7%	43.1%	0.0%
SRG RAD	0.0%	0.0%	8.0%	0.0%	24.6%
SRG SYSTEMIC	2.4%	3.6%	34.7%	20.7%	14.0%
SRG RAD SYSTEMIC	7.1%	0.0%	38.7%	0.0%	7.0%
RAD SYSTEMIC	14.2%	21.4%	2.6%	1.7%	0.0%
NO TX/BX ONLY	16.7%	28.6%	2.6%	24.1%	0.0%

SRG = Surgery
RAD = Radiation
SYSTEMIC = Chemotherapy and/or Hormone Therapy and/or Immunotherapy

Table 2. Newly Diagnosed Cancer Cases by Site, 2020

Primary Site	#	%
ORAL CAVITY & PHARYNX	9	1.2%
Tongue	2	0.3%
Tonsil	6	0.8%
Other Oral Cavity & Pharynx	1	0.1%
DIGESTIVE SYSTEM	177	24.5%
Esophagus	21	2.9%
Stomach	10	1.4%
Small Intestine	9	1.2%
Colon (excluding Rectum)	35	4.8%
Cecum	5	
Appendix	3	
Ascending Colon	5	
Hepatic Flexure	1	
Transverse Colon	2	
Splenic Flexure	1	
Descending Colon	5	
Sigmoid Colon	11	
Large Intestine, NOS	2	
Rectum & Rectosigmoid	11	1.5%
Rectosigmoid Junction	1	
Rectum	10	
Anus, Anal Canal, & Anorectum	4	0.6%
Liver & Intrahepatic Bile Duct	13	1.8%
Liver	6	
Intrahepatic Bile Duct	7	
Gallbladder	3	0.4%
Other Biliary	8	1.1%
Pancreas	60	8.3%
Retroperitoneum	3	0.4%
RESPIRATORY SYSTEM	134	18.5%
Larynx	5	0.7%
Lung & Bronchus	129	17.8%
BONES & JOINTS	1	0.1%
Bones & Joints	1	0.1%
SOFT TISSUE	2	0.3%
Soft Tissue (including Heart)	2	0.3%
SKIN EXCLUDING BASAL & SQUAMOUS	3	0.4%
Melanoma – Skin	1	0.1%
Other Non-Epithelial Skin	2	0.3%
BREAST	76	10.5%
Breast	76	10.5%

Table 2. Newly Diagnosed Cancer Cases by Site, 2020 *(continued)*

Primary Site	#	%
FEMALE GENITAL SYSTEM	93	12.9%
Cervix Uteri	9	1.2%
Corpus & Uterus, NOS	53	7.3%
Corpus Uteri	52	
Uterus, NOS	1	
Ovary	17	2.4%
Vulva	11	1.5%
Other Female Genital Organs	3	0.4%
MALE GENITAL SYSTEM	81	11.2%
Prostate	78	10.8%
Testis	1	0.1%
Penis	2	0.3%
URINARY SYSTEM	55	7.6%
Urinary Bladder	26	3.6%
Kidney & Renal Pelvis	26	3.6%
Other Urinary Organs	3	0.4%
BRAIN & OTHER NERVOUS SYSTEM	10	1.4%
Brain	6	0.8%
Cranial Nerves & Other Nervous System	4	0.6%
ENDOCRINE SYSTEM	26	3.6%
Thyroid	20	2.8%
Other Endocrine including Thymus	6	0.8%
LYMPHOMA	29	4.0%
Hodgkin Lymphoma	4	0.6%
Non-Hodgkin Lymphoma	25	3.5%
NHL – Nodal	19	
NHL – Extranodal	6	
MYELOMA	5	0.7%
Myeloma	5	0.7%
LEUKEMIA	2	0.3%
Myeloid & Monocytic Leukemia	2	0.3%
Acute Myeloid Leukemia	1	
Chronic Myeloid Leukemia	1	
MESOTHELIOMA	1	0.1%
Mesothelioma	1	0.1%
KAPOSI SARCOMA	1	0.1%
Kaposi Sarcoma	1	0.1%
MISCELLANEOUS	18	2.5%
Miscellaneous	18	2.5%
TOTAL	**723**	

2020 COMMUNITY HEALTH ANNUAL REPORT

Standards 8.2 & 8.3 – Monitoring Community Outreach –Daria James, CTR, and Laurie MacDougall, CTR, SEMC Cancer Registry*

I. Overview:

- 8.2: Requirement – 1 prevention program
  - Colon Cancer Awareness Event (3/2020)
  - Fresh Start Smoking Cessation Program (ongoing, 2020)
  - Great American Smokeout (11/2020)

- 8.3: Requirement – 1 screening program
  - Skin Screening – *cancelled due to COVID-19*
  - Breast Cancer Awareness Event, Mammography (10/2020)
  - Low-dose Lung CT Screening Program (ongoing, 2020)
  - First Responders Screening Program (ongoing, 2020)

II. Identification of Community Needs:

The Community Outreach Coordinator* meets with Cancer Registry Manager Daria James, CTR, and pertinent members of the Cancer Care Committee on an as-needed basis, to review Massachusetts Cancer Registry data for the catchment area for St. Elizabeth's Medical Center (Boston, Brookline, and Newton), and data from the SEMC Needs Assessment as appropriate. MCR data for 2011-2015 (the most recent available) showed the following areas of concern:

- Melanoma of the skin: statistically significantly elevated incidence rate in Brookline males and in Newton females
- Breast cancer: statistically significantly elevated incidence rate in Newton females
- Lung cancer: statistically significantly elevated incidence rate in Boston males
- Prostate cancer: statistically significantly elevated incidence rate in Boston and Newton males
- Laryngeal cancer: statistically significantly elevated incidence rate in Boston males
- Oral cavity and pharyngeal cancer: statistically significantly elevated incidence rate in Boston males

Keri Singer, Manager of Community Benefits, was furloughed in March 2020 and laid off in May 2020 due to COVID-19.

III. Information Provided at Community Health Fairs and Events:

No community health fairs and events were held in 2020 due to COVID-19.

IV. Screening Events:

1. Skin Cancer Screening – *not held due to COVID-19*

2. Breast Cancer Awareness Event and Screening – October 2020

St Elizabeth's is committed to breast cancer awareness and planned several events in October 2020 to increase the awareness and importance of yearly mammogram screenings and breast exams. The medical center has taken the following steps to make this easy for patients by providing extended hours including evenings and extended weekend hours in the mammography clinic. SEMC used pink feet, signage, and balloons to call attention to the Mammography Department during the month of October. Extended hours were continued this year as they were successful in 2018 and 2019 and initiated as a result of a survey in 2016 regarding a need for such availability. The hospital also promoted Monday, October 5, as "Wear Pink" Day.

Overall, 536 mammograms were performed during October. Fourteen patients were biopsied, and there were seven positive diagnoses of breast cancer. . The majority of the patients attending during the extended hours were between the ages of 45 and 65, suggesting that the event was popular among women who needed to get their mammograms outside of normal working hours. A survey was administered at the end of the event to gauge its success. All patients said that the early morning and late afternoon appointments were very convenient, and we see a need to continue to offer the extended hours throughout the year.

Steward St. Elizabeth's Medical Center
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Your annual mammogram is one of the most important appointments you can schedule this year.

October is National Breast Cancer Awareness Month, and the Breast Center team at St. Elizabeth's is offering extended clinic hours to help women in our community receive the preventive care they need for breast health. In addition, on October 5, St. Elizabeth's is honoring Wear Pink Day; please consider wearing pink in support of our friends and family who have been impacted by breast cancer.

In addition to regular hours, St. Elizabeth's is offering special mammogram clinics, including:

- Monday, October 5, 4:30 – 6:30 p.m.
- Thursday, October 8, 4:30 – 6 p.m.
- Tuesday, October 13, 4:30 – 6 p.m.
- Monday, October 19, 4:30 – 6 p.m.
- Thursday, October 22, 4:30 – 6 p.m.
- Tuesday, October 27, 4:30 – 6 p.m.

To schedule a mammogram, call 617-789-3160.

Learn more about the award-winning cancer care at St. Elizabeth's.

Recently, St. Elizabeth's earned the Commission on Cancer (CoC) of the American College of Surgeons (ACS) 2019 Outstanding Achievement Award. This prestigious designation is earned by a select group of 49 accredited cancer programs throughout the United States. St. Elizabeth's is the only hospital in Massachusetts to receive this recognition. Award criteria were based on qualitative and quantitative surveys of cancer programs conducted throughout the year. This designation puts St. Elizabeth's program amongst the best of the best when it comes to cancer care.

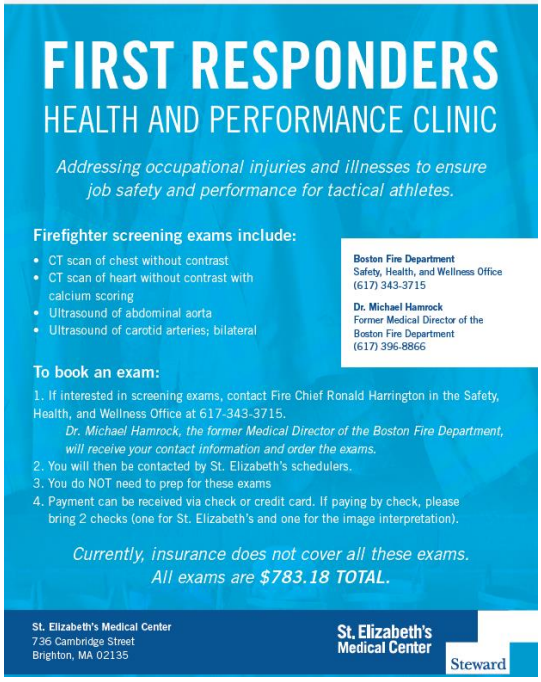
Learn more about how we are keeping our patients safe.
St. Elizabeth's Medical Center remains fully prepared to care for our patients and our community. We are here, as always, to serve all patients. Our commitment to providing care for the ongoing health and well-being of our community is vital, particularly in times like these. Click here to learn more about our Safe & Ready initiatives.

3. **Low-dose Lung CT Screening Program (Ongoing, 2020)**

Lung cancer continues to be the second most commonly diagnosed cancer at St. Elizabeth's Medical Center. In 2014, St Elizabeth's established a low-dose lung CT screening program, which complies with USPSTF eligibility criteria. Patients are referred by PCPs or pulmonologists for screening and appointment scheduling. As part of the lung CT screening program, patients who are current smokers are counseled on smoking cessation and are referred to Quitworks. For 2020, there were 256 low-dose lung CTs performed to date; this included both initial screenings and follow-ups. Two patients in the program were diagnosed with lung cancer in 2020.

4. **First Responders Screening Program (Ongoing, 2020)**

362 police officers and EMS screened to date with ages 27-64 years old. All results were discussed with each officer and their PCP's with recommendations for lifestyle changes, better self-care, further evaluations, and follow-up studies as needed. Several officers underwent lifesaving cardiac, lung, and gastrointestinal procedures as a result of the findings from these workups.



Findings:

- **Carotid Ultrasounds:** 52/362 (14.36%) positive for carotid artery stenosis (40-59% narrowing)
  - 50 + ages: 38/244 (15.57%)
  - **Female officers 16/38 (42.1%) vs males 36/324 (11.1%)**
- **Abdominal Aorta Ultrasounds:** 38/362 (10.49%) abdominal aortic aneurysms (> 3.1 cm)

- 50 + ages: 37/244 (15.16%)

- **Chest CT scan: 127/362** (33%) Lung nodules (2-16 mm)
- 50 + ages: 88/244 (36%)

- **CT Heart (Coronary Calcium Scores):** 214/362 (59.1%). Calcium scores > 0, (1-5000 +)
- **50 + ages: 177/244 (72.5%)**

Other significant and concerning findings

- Ascending thoracic aortic aneurysms (14 cases)
- Enlarged heart (5 cases) and thyroid nodules (7 cases)
- Pulmonary artery dilation (7 cases) and mediastinal lymph nodes (5 cases)
- Bronchitis (8 cases) and interstitial lung disease (3 cases)
- Liver lesion/density (8 cases) and kidney lesions (3 cases)
- Esophageal thickening (severe reflux vs precancerous): 14 cases

Lessons Learned from Discussions with all Officers

- **"**Extended work hours and job demands" contributed to:
  - Stress and Sleep disorders
  - Poor eating habits
  - Behavioral health concerns
  - Limited exercise and excess weight gain
  - Missing annual physicals
  - **All felt scans were significant motivating factors for better self-care and lifestyle changes.**

Summary of Officer Screening Results

- Very concerning occupationally related health risks identified:
  - Vascular studies demonstrate elevated risks for strokes and aneurysm formation
  - Heart scans reveal high risk for coronary artery disease and acute cardiac events
  - Lung scans show need for ongoing surveillance with PCP's for lung cancer early detection
  -

Recommendations

- **Early detection and treatment:**
- Offer scans to all officers with 15+ years of service
- Negotiate with insurance providers to cover
- Annual Police Officer Comprehensive Physical Exam and PCP Education

- **Prevention:**
- Initiate a BPD Health, Safety, and Wellness Division
- Focus on cardiac prehab and promote the "Tactical Athlete" mindset with offering all officers BPD-O2X classes (starting with Academy)

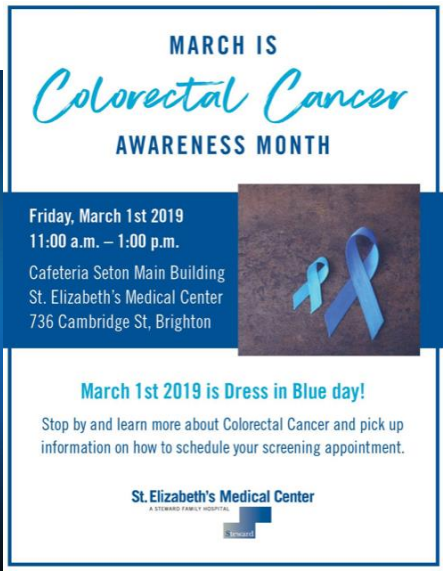
- Further studies on carotid artery disease in female officers

This year's program focused on Boston police officers and EMS, largely because the program was waiting for a special FEMA grant to cover additional cancer screening in Boston firefighters. As of late October 2020, the grant has been awarded, and we will restart these firefighter screenings. It will include chest CTs, abdominal ultrasounds, and mammogram for female firefighters.

The Program Director, Dr. Michael Hamrock, reports high levels of satisfaction among participants. We will continue to grow this program in the future.

V. Prevention Events

5. Colon Cancer Awareness Event – March 6, 2020



Community Relations set up a table in our cafeteria to promote Colorectal Cancer Awareness Month and encourage cancer prevention. Overall, the event was successful and an opportunity to engage with staff and patients. Additionally, this event is part of the Cancer Care Committee 2020 initiatives in holding at least one Cancer Prevention Program.

Over the course of 2.0 hours, approximately 60 staff and patients stopped by our table and were provided with information on Colorectal Cancer. Information provided included material from the American Cancer Society on Colorectal Cancer Screening as well as St E's screening cards with information on how to schedule a colonoscopy appointment. Approximately 25 screening cards were handed out to community members and staff. Three people scheduled appointments for colonoscopy.

6. Tobacco Cessation Programs – July 20-August 28, 2020; September 7-October 10, 2020; and October 26-December 4, 2020

St. Elizabeth's Medical Center held three separate 6-week Tobacco Cessation Programs for employees in 2020, which was held one day a week online. For each session, a choice of three weekly days/times was available. Employees who completed the program were eligible for the non-tobacco health insurance premium for 2020

7. Great American Smokeout –*not held due to COVID-19*

2020 PSYCHOSOCIAL CARE REPORT

Abigail Osei-Tutu, LICSW, Psychosocial Distress Coordinator

DFCI/St. Elizabeth's satellite social worker provides psychosocial support to patients and families throughout the medical oncology continuum. DFCI/St. Elizabeth on-site Resource Specialist assists medical oncology patients with concrete resource needs (transportation, financial assistance): 3 days/wk at DFCI/SEMC and 2 days/wk at DFCI/Milford.

DFCI/St. Elizabeth's satellite social worker continues to collaborate closely with nurses, physicians, and support staff to identify patients in need of psychosocial support. Routine psychosocial needs are further identified during daily multidisciplinary huddles as well as formal/informal social work consultation. DFCI/St. Elizabeth's satellite social worker facilitates palliative care rounds which are now virtual via Zoom. Palliative care rounds are facilitated to encourage thoughtful care planning around psychosocially complex cases. DFCI/St. Elizabeth's satellite social worker assists in triaging psychosocial concerns emerging in other SEMC oncology practices including the Center for Breast Care and Radiation Oncology, as staffing in these settings does not include psychosocial support.

Distress Screening:

- DFCI/St. Elizabeth's satellite clinic's automated Psychosocial Distress Screening process successfully implemented May 14th, 2019. Due to Covid-19 precautions, distress screenings are now completed via patient gateway at home.
- Screening oversight/tech support and clinical triage continue to be provided by DFCI Longwood staff, in coordination with ongoing Institute-wide Distress Screening rollout. Ongoing need to address re: lack of distress screening in other oncology clinics throughout SEMC.

Clinical Services:

- psychoeducation around the importance of advanced directives, including healthcare proxy designation.
- adjustment counseling for patients and families coping with new diagnosis, disease progression, and disease surveillance.
- psychoeducation addressing family concerns including communication strategies, parenting techniques, elder care needs, etc.
- end-of-life counseling for patients and families facing anticipatory grief, preparing for death.
- collaboration with external collaterals to encourage continuity of psychosocial care, including community mental health providers, home health care providers, elder service providers, skilled nursing facility, and rehab providers.
- community referrals to bolster overall support available to patients and families including psychiatry, counseling/psychotherapy, wig services, meal delivery programs, Mass Health PCA program, elder services, SHINE program, YMCA Livestrong program, support groups, DTA/SNAP, and fuel assistance.
- DFCI/St. Elizabeth's Palliative Care Rounds: monthly forum to review care plans of patients with life-limiting illness and complex psychosocial background, facilitated by social worker.

  - Multidisciplinary collaboration including participation from SEMC pain clinic, SEMC pulmonology providers, SEMC Spiritual Care, GS Palliative Care, community agencies (VNA/hospice, etc.) (via conference call).

- Group Program
  - **Look Good Feel Better:** program operating separately from ACS; no local programs currently listed at http://lookgoodfeelbetter.org/.

Concrete Services (referred to Resource Specialist):

- financial: assessment of illness-related income changes and basic household expenses, screening for DFCI Patient Assistance Funds ($250/year for groceries, gas or the RIDE); collaboration with Program RN to address high medication co-pays; collaboration with Financial Coordinator to advocate for limited English speaking patients with insurance and billing concerns; referrals to SEMC Financial Counselors for Mass Health applications, referrals to community based utility assistance programs; screening for DFCI Seasonal Giving program (holiday assistance).
- transportation: referral to Resource Specialist for Mass Health PT-1, The RIDE (MBTA) or equivalent regional program, ACS Road to Recovery, management of BPHC taxi vouchers supplied for Boston residents, DMV disabled parking placard.
- housing: rental assistance program referrals, advocacy letters to support housing applications, assisted living referrals.
- food: referrals to DTA (SNAP/EAEDC benefits), Community Servings (meal delivery service for patients with chronic illness), grocery store gift card provision through DFCI Patient Assistance Funds, community food pantries.

Due to COVID-19 financial stressors, there has been an increase in funds that are available to be dispensed to patients with fewer restrictions on who is eligible for funds. Resource Specialist is providing concrete support via telecommunications until further notice.

COVID-19 effects on interacting with patients:

- Social Work support is now being provided virtually (phone or Zoom) three days a week (Tuesday, Thursday, Friday).
- Starting in July 2021, Social Worker will be on-site Mondays, Tuesdays, and Wednesdays.
- Patients have been receptive to virtual emotional support.
- The main barriers with providing emotional support virtually include not being able to properly read body language, shorter conversations, trouble with technology, and sometimes patients don't pick up their phones due to unknown numbers or their personal schedules.
- Most of social work support/interactions are now based on COVID-19 stressors, which have caused baseline anxiety and depression to be exacerbated.

A Review of Liver Cancer Diagnosis and Treatment at St. Elizabeth's Medical Center, 2010-2020

The Cancer Care Committee chose liver cancer as the site for in-depth review for this report. For the period 2010-2020, there were a total of 94 liver cancer cases abstracted. The National Cancer Data Base (NCDB), to which SEMC data are compared, reported 162,674 liver cancer cases submitted during this time period.

The American Cancer Society[1] estimates that about 42,230 new cases of liver cancer will be diagnosed nationally in 2021 (29,890 in men and 12,340 in women), and about 30,230 people (20,300 men and 9,930 women) will die of the disease. The ACS notes that there has been a substantial rise in both incidence rates and death rates for liver cancer since 1980. Risk factors for liver cancer include being male; being of Asian/Pacific Islander origin; a history of chronic viral hepatitis, cirrhosis, hereditary hemochromatosis, or type II diabetes; and certain lifestyle factors, including heavy alcohol use, tobacco use, and obesity.[2]

In Massachusetts, liver cancer was the 12th most commonly diagnosed cancer in men and the 18th most commonly diagnosed cancer in women, representing 2.9% of all cancers diagnosed in men and 1.0% of all cancers diagnosed in women for the period 2013-2017.[i] It was the 5th most common cause of cancer death in men and the 10th most common cause of cancer death in women during this time period, representing 5.9% of cancer deaths in men and 2.8% in women. Incidence rates increase with age, rising from 5.3 cases per 100,000 men aged 45-49 to 71.2 cases per 100 men aged 80-84 and older; the median age of diagnosis in men was 65. Among women, rates rose from 1.6 cases per 100,000 women aged 45-49 to 24.5 cases in women aged 80-84; the median age of diagnosis in women was 68.

Please note that the following statistics refer to only analytic liver cancer cases, resulting in smaller numbers than the above. Analytic cases are those cases that were diagnosed and/or received all or part of their first course of treatment at SEMC. Cases that represent metastatic or recurrent disease are excluded from these analyses.

Figure 3 shows the distribution of age at diagnosis at SEMC vs. NCDB for 2010-2020 for liver cancer cases. More than 90% of both SEMC and NCDB cases were diagnosed at age 50 or greater. The most common age group for diagnosis was 60-69 for both SEMC patients and NCDB patients.

Figure 3. Analytic Liver Cancer Cases, 2010-2020: Comparison of Age at Diagnosis, NCDB vs. SEMC

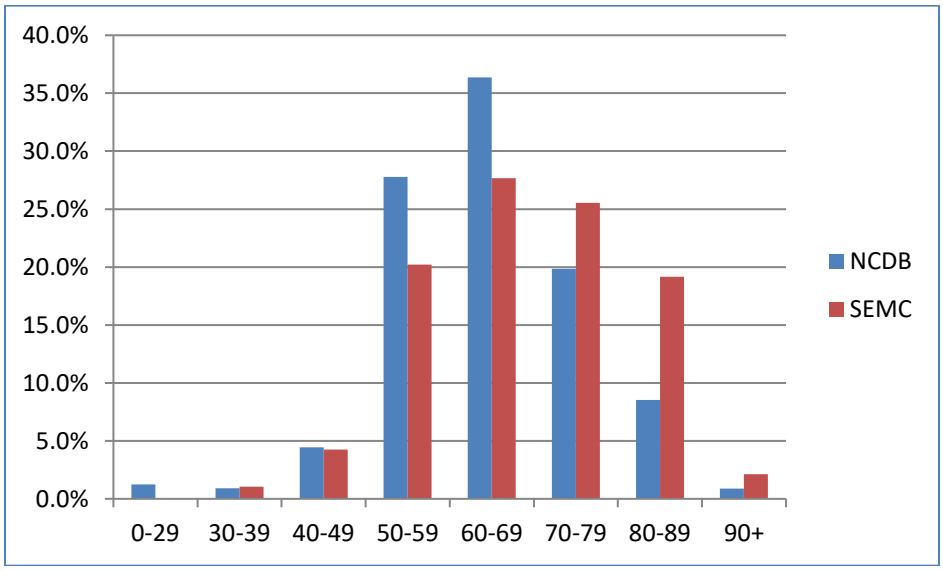


Figure 4 shows the distribution of stage at diagnosis at SEMC vs. NCDB for liver cancer cases. The largest proportion of cases were diagnosed at stage I (34.7% of SEMC and 33.8% of NCDB cases). The proportion of SEMC cases diagnosed at an early stage (I or II) was lower than that of NCDB cases (46.7% of SEMC cases vs. 53.9% of NCDB cases). (Note: 19 SEMC cases and 11,162 NCDB cases were excluded from analysis because their histologies are inconsistent with this staging system.)

Figure 4. Analytic Liver Cancer Cases, 2010-2020: Comparison of Stage at Diagnosis, NCDB vs. SEMC

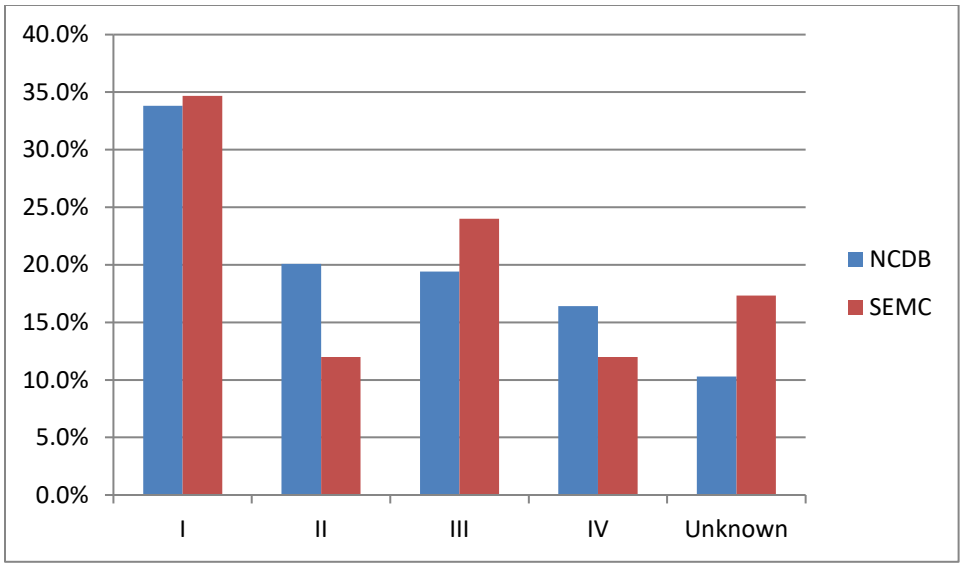


Table 3 shows the distribution of first course of treatment at SEMC vs. NCDB for liver cancers. The proportion of cases that received no treatment/biopsy only were comparable (28.7% for SEMC vs 29.4% for NCDB), as were the proportion of cases receiving systemic treatment only (24.5% for SEMC vs. 27.6% for NCDB) and the proportion receiving a combination of surgery and systemic treatment (7.4% for SEMC vs. 7.9% for NCDB). The proportion of cases that received surgery only was higher for SEMC cases (28.7% SEMC vs. 18.1% NCDB), perhaps reflecting an increased focus on hepatobiliary surgery at SEMC.

Table 3. Analytic Liver Cancer Cases, 2010-2020: Comparison of Initial Treatment, NCDB vs. SEMC

TREATMENT	NCDB (n=162,674)	SEMC (n=94)
SRG only	18.1%	28.7%
SYSTEMIC only	27.6%	24.5%
RAD only	8.3%	5.3%
SRG RAD	0.8%	1.1%
SRG SYSTEMIC	7.9%	7.4%
SRG RAD SYSTEMIC	0.6%	0.0%
RAD SYSTEMIC	4.3%	3.2%
OTHER	1.4%	1.1%
NO TX/BX ONLY	29.4%	28.7%

SRG = Surgery
RAD = Radiation
SYSTEMIC = Chemotherapy and/or Hormone Therapy and/or Immunotherapy

[1] Key Statistics for Liver Cancer. American Cancer Society, 2021. https://www.cancer.org/cancer/liver-cancer/about/what-is-key-statistics.html

[2] Liver Cancer Risk Factors. American Cancer Society, 2021. https://www.cancer.org/cancer/liver-cancer/causes-risks-prevention/risk-factors.html

[i] Cancer Incidence and Mortality in Massachusetts, 2013-2017. Massachusetts Cancer Registry, 2021. https://www.mass.gov/doc/cancer-incidence-and-mortality-in-massachusetts-2013-2017-statewide-report/download