**CANCER PROGRAM**

**ANNUAL REPORT**

**2017**

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**Veterans Affairs Medical Center**

**Providence, Rhode Island**

**Published 2018**

MISSION

The mission of the Cancer Program at the Providence Veterans Administration Medical Center (VAMC) is to decrease the morbidity and mortality of cancer patients. Our goal is to improve cancer related efforts in prevention, early diagnosis, pretreatment evaluation, staging, treatment, rehabilitation, surveillance for recurrent and multiple primary cancers, and to improve the care of the terminally ill cancer patients.

INTRODUCTION

Three major components to the VAMC Cancer Program include the Cancer Committee, Tumor Board/Cancer Conferences, and the Cancer Registry. Every year the cancer program defines two program goals, two quality assessment and two quality improvement projects.

The objectives of the Cancer Committee are to ensure that multidisciplinary services for evaluation, treatment and rehabilitation are available to all cancer patients; to encourage a supportive care system for cancer patients; to plan and conduct patient quality evaluations annually; and to discuss any relevant cancer related issues within this medical center.

The goal of the Tumor Board/Cancer Conferences is to provide a multidisciplinary consultative service for evaluation, treatment and planning for cancer patients and to educate the medical staff and house staff.

The program goals and quality improvement and quality assessment projects are devised to identify problems, improve patient care, and provide quality assurance.

The Cancer Registry, which represents a compilation of data on oncology cases seen at this institution, provides supportive data for administrative planning, quality improvement activities, patient care, clinical research, and community outreach. The data are collected in a uniform, consistent manner and are readily retrievable.

The Cancer Program is a combined effort of select members of the health care team, including the technicians, pharmacists, therapists, case managers as well as the physicians and nurses who significantly contribute to the care of the cancer patient. The data in this report are designed to assist all health care professionals to better serve our patients.

CANCER COMMITTEE

The purpose of the Cancer Committee is to discuss and supervise activities relating to cancer treatment, control, education, and reporting within the VAMC. The Committee includes representatives of the professional specialties as recommended by the American College of Surgeons (ACOS). The Chairperson and members of the Committee are as follows:

N. Freeman MD Chairperson/ Chief, Hematology/Oncology

K. Faricy-Anderson MD Hematology/Oncology, Clinical Research Coordinator

D. Chen MD Pathology & Laboratory Medicine Service

A. Dunican MD Surgical Service, Cancer Liaison Physician

J. Cameron CNS Patient Navigator

M. Shindell CTR Cancer Registrar, Cancer Committee Coordinator

M. Bates RD Nutrition & Food Service

R. Caiati MD Diagnostic Imaging Service

J. Ryan R. Ph. Pharmacy Service

K. Sevigny RN In-patient Case Manager

Rev. D. Cottrell Chaplain Service

M. Travis NP Urology Section of Surgical Service

L. Mercer NP Palliative Care

S. Cesaro LICSW Palliative Care

S. Ryan NP Pulmonary Navigator

M. Stephenson RN Home & Hospice Representative

P. Newton RN 4B Nurse Manager

A. Fiore American Cancer Society Representative

A. Hayes LCSW Hematology/Oncology Psychosocial Coordinator

M. Thibeault RN Quality Improvement

Y. Flowers RN, BSN Oncology Nurse

There were four quarterly cancer committee meetings in 2017. Among the topics discussed were the educational activities of members of the committee.

Dr. Nancy Freeman MD attended the Association of VA Hematologist/Oncologist (AVAHO) annual meeting in Denver, CO September 2017 and ASH (American Society of Hematology) in 12/17 (Atlanta). Facility-based education included the following presentations: Plasma Cell Dyscrasias; Man to Man PSA Failure, Thrombocytopenia, Bone Marrow Failure Syndromes. The malignancies that are presented (i.e. Lymphoma/ MDS) include a discussion of epidemiology, AJCC staging, work-up, and treatments (NCCN Guidelines); presentations are made to the house staff, fellows, lab personnel, and interested nursing staff

Dr. Faricy-Anderson attended the Association of VA Hematology/Oncology conference in 2017. Facility-based education included the following:  lymphoma, hypercoagulability, palliative care, and medical futility presentations for house staff, fellows, and interested nurses.  She is a co-Investigator of the ongoing VA HSR&D-funded studies "Can Concurrent Hospice Care and Cancer Treatment Achieve Superior Outcomes?" and “Value of End-of-Life Cancer Care.”

Janet Cameron, C.N.S. acts as preceptor for MSN candidates in the Clinical Nurse Specialist track at Rhode Island when asked. She also provides education to High School and College students about Oncology as requested. She is current co-Chair of the APN Council. Ms. Cameron maintained her Advanced Oncology Certification by attendance at conferences, online courses through the Oncology Nursing Society, and other oncology related educational offerings. This certification is good through December of 2020. She also maintains a chemotherapy certification through the Oncology Nursing Society, and teaches a chemotherapy course to new RNs on 4B which includes lecture, written examination and a clinical component, and she reviews the practice and re-credentials the certified RNs on an annual basis.

Ms. Cameron co-authored an article "Development and Implementation of a Multidisciplinary APRN Managed Colorectal Cancer Surveillance Program that was accepted for publication in 2014.

Yassah A. Flowers is the RN Care Manager for the oncology department. She also serves as the cancer outreach coordinator. Ms. Flowers also runs the post-chemotherapy clinic by following up with new patients after their first chemotherapy. She also carries out staff development on chemotherapy precautions, for the inpatient units and some outpatient clinics. Ms. Flowers also introduced to the inpatient units, a yellow “medication precaution” sign meaning “Chemo precaution”. It is presently being used by some inpatient units. On a weekly basis, Ms. Flowers prepares the chemotherapy drug order, which ends up saving the PVAMC money. Ms. Flowers schedules, and works along with Janet Cameron, to carry out quarterly Cancer Awareness day. For 2017, there were at least 3 quarterly cancer outreach days carried out for Veterans, families, and staff. Ms. Flowers obtained her chemotherapy administration certification in 2016 from the PVAMC, given by Ms. Cameron. Ms. Flowers attended the Rhode Island Cancer Summit at the Crown Plaza Hotel in Warwick on June 15th, 2017; it was about finances, biologics, and pain management. Ms. Flowers attends the quarterly cancer committee meeting held at the PVAMC, and the weekly tumor board meeting. Ms. Flowers’ intention is to take up a new role within the oncology department in the future, therefore she is presently attending the Walden University nurse practitioner program to become an NP.

Michelle Shindell BA, CTR attended the Hospital Association of R.I. monthly meetings throughout the year. These meetings covered site specific cancer abstracting, revisions of Cancer Program Standards, FORDS manual, coding revisions and the roll out of the 8th edition of the AJCC manual. Michelle also attended the Partnership to Reduce Cancer in RI annual meeting in Warwick, RI in June 2017 and the annual CRANE meeting in Mystic CT in October 2017.

TUMOR BOARD/CANCER CONFERENCES

Dr. Nancy Freeman, Chairperson of the Cancer Committee along with Dr. Katherine Faricy-Anderson, serve as moderators at Tumor Board/Cancer Conferences which are held each Wednesday at 2:00 PM to discuss types of treatment modalities available, giving the patients the opportunity of a multidisciplinary approach to their treatment as well as providing education to house staff, students, and other health care providers. In attendance at our Tumor Board/Cancer Conferences are representatives from Medical Hematology/Oncology, Hematology/Oncology Fellows, Surgical Oncology, Pathology, Diagnostic Imaging, and consultants from 21st Century Oncology and North Main Street Radiation Oncology.

During 2017, there were a total of 35 conferences, with 156 presentations of new primaries, follow-ups, and recurrences. The following list shows the sites discussed:

Prostate 54 GBM 2

Lung 20 GE Junction 2

Head and Neck 11 Meningioma 2

Skin 10 Penile 1

Esophageal 9 RCC 1

Pancreas 6 Mesothelioma 1

Unknown 5 Met to the brain 1

Bladder 5 HCC 1

Lymphoma 5

Breast 4

Colorectal 4

Sarcoma 3

Gastric 3

Melanoma 2

Multiple Myeloma 2

Carcinoid 2

SURGICAL SERVICE

The Providence VAMC is one of the affiliating sites for the Brown Residency Program and the Brown Medical School Program. Surgery has residents from the general, urology, plastic, podiatry, orthopedic, and ophthalmology surgical programs.

Dr. Annmarie Dunican, Associate Chief of Staff, Surgical Service, along with attending surgeons including Dr. Beth Ryder, James Koness, David Heffernan and Todd Stafford performs a variety of oncologic procedures including breast, colorectal, and soft tissue surgeries. Dr. Travis Cotton is a trained endocrine surgeon; Sarah White, Vanessa Ventura and Bridget Hanley are midlevel practitioners for the surgical team. Dr. Thomas Ng and Dr. Steven Milman are fellowship trained thoracic surgeons who perform surgery for lung cancer. Together, they serve as consultants to the medical staff, nursing staff, and patients regarding their surgical care, treatment, outcome, expectations, and lifestyle changes.  They interact with Tumor Board/Cancer Conference members in planning patient care and appropriate follow-up care. The surgical residents from Brown Medical School Residency Program based at Rhode Island Hospital evaluate, diagnose, and follow-up patients with cancel's requiring surgery (staging procedures, curative, or palliative). This includes both emergency and elective surgery on both inpatients and outpatients.

UROLOGY CLINIC

Urology clinic is under the direction of Simone Thavaseelan, M.D, Chief of Urology Service at the Providence VAMC. Dr. Thavaseelan joined the VAMC in 2011 after completing residency training and fellowship in Endourology, Laparoscopy, and Robotics at Brown University. The team continues to include the Brown University Division of Urology contractors together with urology residents.  The section maintains an active clinical service: the Urology Clinic provides general and subspecialty clinic hours, cystoscopy, rectal ultrasound prostate biopsy procedures, and extensive urological surgeries.  Preoperative and postoperative care are provided in house. The Section provides fellowship trained surgeons in areas of infertility, male sexual dysfunction, stone disease, bladder cancer, prostate cancer, kidney cancer, and voiding dysfunction and reconstruction.  Michelle Travis, NP and Jessica Madison, NP provide independent clinic hours, coordination of care for GU cases, as well as membership on the Cancer committee and the Prostate cancer support group. Tammy Ponte, RN and Mike Matos RN joined the Urology Section in 2018 to provide nursing case for outpatient and ambulatory urologic patients.

M2M Prostate Support Group began in 2009 and welcomed veterans, families, and caregivers. These meetings are held on the third Monday of each month with various topics and speakers. There are generally 10 meetings per year, September through June. The support group is still in effect.

DIAGNOSTIC IMAGING

The Diagnostic Imaging Service (DIS) at the Providence VAMC provides veteran patients with the benefit of work-up, staging, and diagnosis of their cancer.  The procedures performed include, but are not limited to, the following:  CT guided biopsies, ultrasound procedures, complete staging evaluation and follow-up staging, and emergent oncologic work-up (i.e., cord compression).

Diagnostic Imaging collaborates with the Pulmonary Section to expedite work-up of individuals with lung nodules. The staff also participates in Tumor Board/Cancer Conferences, Cancer Committee, and Lung Cancer Management Conferences.

Nuclear Medicine actively participates in the diagnosis and defines the distribution of neoplasms and metastases in cancer patients. The Nuclear Medicine Section is fully equipped with state-of-the-art technology, such as a dual head Siemens gamma camera capable of performing a multitude of diagnostic procedures. Tumors can be diagnosed and staged with the help of the following imaging procedures: thyroid, lung, gallium, myocardial, brain, liver/spleen, renal, bone, cardiac ejection fraction, Octreoscan, and hepatobiliary evaluation.

DIS has 2 CT scanners including a Siemens 128 multislice detector and a 160 multislice Toshiba CT scanner. They have a 3 Tesla MRI scanner as well as a Siemens multipurpose procedure suite.

HEMATOLOGY/ONCOLOGY SECTION

The Hematology/Oncology Section of Medical Service consists of the chief, Dr. Nancy Freeman, Dr. Faricy-Anderson, Janet Cameron C.N.S., and Yassah Flowers RN, BSN who administer intravenous antineoplastic drugs to mainly out-patients, and the Cancer Registrar/Cancer Committee Coordinator, Michelle Shindell, BA CTR. Hematology/Oncology Fellows work with Dr. Freeman and Dr. Faricy-Anderson in Chemotherapy Clinic and Hematology/Oncology Clinics and help with consultations. In 2017, averages of 110 chemotherapy treatments (IV and oral, as well as transfusion and supportive care) were administered per month; the majority of treatments were given on an out-patient basis. In Chemotherapy Clinic, held Mondays, Tuesdays, and Thursdays, patients have their blood counts checked, and are treated according to guidelines. At this clinic, the concerns and needs of each patient are addressed. Initially, patients are given reading material to educate them regarding their specific type of cancer, nutrition, self-help while undergoing treatment, oral care, and other site-specific information, and contact information. The goal of the Hematology/Oncology Staff is to provide optimal care, both physically and emotionally, to our veteran patients.

At Hematology/Oncology Clinic on Wednesdays, new patients and patients with active disease who are not currently undergoing treatment are followed up to assess present tumor status and routine surveillance. Patients with a history of malignant disease currently without evidence of disease are also followed here on a regular basis to check for recurrent disease.

In Surveillance Clinic, our nurse, Janet Cameron CNS, does follow up of all patients who have completed treatment for early stage colon and lung cancers, based on NCCN guidelines.

CLINICAL NURSE SPECIALIST

The role of the Clinical Nurse Specialist for Oncology is multi-faceted. Janet Cameron serves as a consultant to both patients and family members by direct contact or by telephone, on such concerns as their treatment, nutrition, side effects of chemotherapy and radiation therapy, as well as matters of a personal nature.  She also acts as a navigator, assisting patients with timely scheduling of tests and procedures.

She interacts with the Hematologists/Oncologists, Dr. Nancy Freeman and Dr. Katherine Faricy-Anderson, in the planning of patient care and administration of antineoplastic agents and blood products, and sees patients in clinic who are there for follow up blood counts.  She also provides education to nursing staff and anyone involved with the care of cancer patients.  The Post-Treatment Surveillance Clinic for colorectal cancer patients was established in January of 2008. Ms. Cameron monitors patients and appropriately orders colonoscopies, CT Scans, and CEA's according to NCCN guidelines.  She is an active member of the Cancer Committee.  Janet is past Newsletter Editor for R.I. Chapter of the Oncology Nursing Society, and past Chairperson of the R.I. Cancer Pain Initiative.

Ms. Cameron is highly respected for the excellent quality of care she provides and her involvement in the total well-being of cancer patients. Several members of the 4B nursing staff have been educated and certified in assisting the Oncology Nurse. She offers a chemotherapy certification course for the new 4B nursing staff and administers a Chemotherapy Certification exam followed by a clinical practicum, which the nurses are required to pass prior to administration of chemotherapy.  She recertifies the nurses on 4B on an annual basis to ensure continued competency in chemotherapy administration. The certification reflects a community and national standard for administration of chemotherapy according to Oncology Nursing Society guidelines for Oncology Nursing practice.  She provides continuing education to maintain current practice.   Ms. Cameron also acts as Clinical Instructor for Masters’ Level Clinical Specialist students from Rhode Island College, and occasionally for undergraduate nursing students.

HEAD and NECK CLINIC

Head and Neck Clinic is under the direction of Dr. R.James Koness. There are two ENT specialists on staff, Jean Bruch, M.D. and Pamela Dana M.D. Jack Bevivino, M.D. the plastic surgeon is also utilized as a consultant for major reconstructive head and neck surgery. Our surgeons are responsible for evaluation and diagnosis of new cases as well as management and treatment of patients previously diagnosed with cancers of the oral cavity, pharynx, and larynx as part of a multi-modality approach including radiation, chemotherapy, and surgery.  Patient follow-ups are managed according to tumor status.

PALLIATIVE CARE

This is program of supportive care for patients with life-threatening or chronic progressive illnesses. The core palliative team includes a nurse practitioner, social worker, chaplain and medical consultant. Palliative Care is available through an in-patient consult service, out-patient clinic, and through Home Based Primary Care.

The palliative care mission is to provide:

Coordinated care with patient's primary health care team.

Expertise in pain and other symptom management.

Help for patients/families with discussion and decisions concerning goals of care and advanced directives.

Care that matches the patient's/family’s values and beliefs.

Assistance in coordinating all care wherever the patient is treated.

RADIATION THERAPY

The Providence VAMC provides off site radiation therapy treatment at 21st Oncology Radiation Therapy and North Main Street Radiation. The machine used is a Varian Linear Accelerator which can deliver both 3-dimensional (3D) and intensity-modulated radiation therapy (IMRT); these treatments are verified using image-guided radiation therapy (IGRT) with cone-beam CT scans and kilovoltage imaging. There are three physicians on staff at 21st Century Oncology, all of whom are Board Certified by the American Board of Radiology. In addition, one full-time nurse is in the department, as well as four radiation technicians, all licensed to operate linear accelerators in Rhode Island. At North Main Street Radiation, there are six physicians, four physicists and a full-time nurse on staff at NMS RT.

NUTRITIONAL ASSESSMENT, EDUCATION AND SUPPORT

The Clinical RD provides nutrition assessment and monitoring on a consult basis for all patients in the Chemotherapy Clinic who are determined to require nutrition intervention.   Interventions include nutrition consultation for education for such problems related to chemotherapy, such as anorexia, xerostomia, mouth sores and weight loss. The Clinical RD also provides education and management for patients requiring specialized nutrition support during oncology treatment by assessing nutritional status and needs, providing education along with the RN on enteral feedings and providing formula and supplies related to enteral feedings.

After completion of Chemotherapy, patients who have been followed by the Chemotherapy Clinic RD are then referred, if needed, to Nutrition Clinic for further monitoring and education

GASTROENTEROLOGY SECTION

In 2011, the GI Section of Medical Service developed an inter facility relationship with West Haven, CT VAMC Liver Tumor Board. Patients with known or suspected liver tumors are presented at this Liver Tumor Board and have their treatment at the West Haven, CT VAMC.

The GI Section participates in several screening, surveillance, diagnosis, and treatment protocols relative to cancer diagnosis.

SCREENING

Fecal Occult Blood Testing in individuals at average risk for the development of colon cancer.

Screening flexible sigmoidoscopies in individuals at average risk for the development of colon cancer with occult blood negative stools as checked by PCP.

Screening colonoscopy for individuals at average risk for development of colon cancer.

Screening colonoscopy in individuals at above-average risk for the development of colon cancer.

Screening upper endoscopy for the presence of Barrett's epithelium in patients with longstanding gastroesophageal reflux disease.

Screening via ultrasound and serum alpha fetoprotein for individuals at risk for development of hepatocellular carcinoma.

SURVEILLANCE

Colonoscopic surveillance in patients with history of neoplastic/adenomatous polyps.

Colonoscopic surveillance in patients with a personal history of colon cancer.

Colonoscopic surveillance in patients with a history of ulcerative colitis for > 7-10 years.

Upper endoscopic surveillance in patients with a known history of Barrett's esophagus.

Upper endoscopic surveillance in patients with a known history of upper GI tract malignancy.

EVALUATION

Endoscopic evaluation of patients with symptoms suggestive of upper or lower GI tract malignancy.

Endoscopic evaluation of asymptomatic patients with positive screening fecal occult blood tests.

Endoscopic evaluation of patients with suspected hepato-pancreatobiliary malignancy.

Consultative and sometimes endoscopic evaluation of patients with suspected metastatic disease with unknown primary.

TREATMENT

Treatment/removal of neoplastic polyps.

Endoscopic palliative treatment of esophageal, pancreatic, cholangio, and occasionally gastric or colonic cancer.

Providence is one of 42 sites nationally participating in the VA Cooperative Study, CONFIRM: Colonoscopy versus Fecal Immunochemical Test in Reducing Mortality from Colorectal Cancer. The goal of the CONFIRM study is to help determine the best screening method for reducing colorectal cancer.

PATHOLOGY AND LABORATORY MEDICINE SERVICE

The Pathology and Laboratory Medicine Service plays a vital role in the histological diagnosis of cancer. There is a full-time Chief Pathologist, one full-time staff pathologist, and one-part time pathologist. Most cancers are confirmed by surgical pathology. Some cases are diagnosed initially by cytopathology screening or by autopsy. Cytology is done at the Boston VA, and some heme-pathology cases are reviewed in the Boston VA.

A program of peer review is based on concurrent review by a second pathologist prior to a case being finalized. Quality assurance is provided by surveys of surgical pathology provided by the Joint Pathology Center (JPC) and the College of American Pathologists.

Among many functions, the Pathology and Laboratory Medicine Service plans for special stains and studies (i.e., flow cytometry), as well as provide consultations through the Joint Pathology Center (JPC) or outside consultants.

Our Acting Chief Pathologist, Dr. Dongfen Chen, participates in Tumor Board/Cancer Conferences and is a member of the Cancer Committee.

INPATIENT PHARMACY SERVICE

The Inpatient Pharmacy Service is a multi-member team of experienced and specially trained Inpatient Clinical Pharmacists, Professional, and Certified Pharmacy Technicians responsible for the acquisition, storage, sterile compounding, dispensing, and safe handling of all medications used in chemotherapeutic regimens. These regimens include complex combinations of highly toxic antineoplastic and cytotoxic agents, monoclonal antibodies and other immunotherapy agents, antiemetics, analgesics, and various hydration fluids, all of which are prepared using aseptic technique in a Compounding Aseptic Containment Isolator providing the ultimate in product and personnel protection. The result is a sterile, pharmaceutically elegant product, requiring minimum manipulation prior to administration, thereby reducing the risk of contamination of the health-care work environment, and excessive exposure to personnel, patients, visitors, and families, A double check procedure is incorporated to verify accuracy and quality of sterile product to ensure that the medication, dosage, physiological solution, volume and concentration, infusion rate, and dosing schedule are compatible, accurate, and therapeutically appropriate.

Inpatient Clinical Pharmacists are available as a drug information resource and provide authoritative drug information regarding medical therapeutics, toxicity, acute exposure treatment, and other clinical considerations in the care of the cancer patient. These services and others, provide ancillary assistance in caring for oncology patients maximizing time dedicated by other health-care providers addressing education, potential problems, and individual needs of our patients.

The Inpatient Pharmacy Service at the Providence VAMC is a busy progressive department. Its service is perpetually involved in improving the medication-use systems to address problems of access, quality, and the cost of medicines and pharmaceutical care services. Staff members bear significant responsibility for ensuring optimal clinical outcomes regarding all medication therapy Fulfillment of this responsibility is enhanced by an evolving program of comprehensive pharmaceutical services aimed at contemporary practice intended to commensurate with the need of this health-care setting and our veteran patients.

LUNG CANCER MANAGEMENT CONFERENCES

In 1998, a new lung cancer management conference was started. The Pulmonary Section of Medical Service felt there was an interest and need to start a Lung Cancer Management Conference. Lung cancer cases are presented by the Pulmonary Section and treatment recommendations are discussed by the Pulmonary Section, General Surgeons, Thoracic Surgeons, Radiation Therapists, Medical Oncologists and Pathologists. It meets monthly on the third Thursday at 8:00AM in Room 653; it is a highly regarded and a very well attended conference which provides patients the best possible treatment plan for their lung cancers. The registrar tracks the oncology personnel attendance and number of cases presented at the Lung Cancer Management Conferences. In 2017 the committee reviewed 140 cases over a 12-month period.

CANCER REGISTRY

The Cancer Registry at the Providence VAMC for 2017 was managed by Michelle Shindell BA, CTR. The central office registrar at the Washington, DC. VAMC has the reference date as 1/1/1984. The Commission on Cancer has the reference date of the registry as 1/1/1999. As of October 1, 1996, this registry utilizes the Onco Trax software developed by the VAMC for national use. The remote data feature enhances registry operations by enabling registrars from VAMC's nationwide to access cancer information for accessible follow-up, thus greatly decreasing lost-to-follow-up cases.

The resources utilized in data retrieval on oncology patients are the CPRS (Computerized Patient Record System), DHCP (Decentralized Hospital Computer Program), pathology reports, radiological reports, Medical Disease Index, oncology clinics, and minutes of weekly Tumor Board /Cancer Conferences. Michelle Shindell also acted as Coordinator of the Tumor Board/Cancer Conference and the Cancer Committee.

GOALS, QA and QI

Goals and Quality studies in 2017 were conducted on the following topics:

1. **GOAL** #1 To design, have medical records approve, and then initiate, and use a CPRS VA Staging form by the tumor registrar and oncologists >> DONE .
2. **GOAL** #2 UPDATE CONTACT INFO/CHEMO INFO/CARDS for patients and heme/onc form >> DONE.
3. **QA #1** YF/JC questionnaire to patients after chemo if a post rx call would be helpful >> subsequent call (YF clinic intervention) >> QI 2018

**QA Survey of New Chemotherapy Patients**

“Would a telephone call a few to several days after your first chemotherapy, to make sure that you understood how to take your medications, or to see if you were having side effects that you needed assistance with, have been helpful and/or preferable to you?”

We performed an informal survey of patients receiving new chemotherapy from August 2016 through September 2016. Veterans were asked whether a phone call a few to several days after their initial chemotherapy treatment, to ensure that they understood about the drug administration schedule if they were taking oral chemotherapy (as well as IV), to see if they had questions about their anti-emetics or other meds, and/or to ask if they were having symptoms that they needed assistance managing, or any other questions, would have been helpful. Over this two-month period 20 patients were surveyed. Eighteen of the Veterans (or their family members), which = 90%, stated that a phone call would have been helpful. Two Veterans, or 10%, stated that they did not feel that a phone call would have been necessary.

Intervention has been to start a telephone post chemo clinic (Chemo nurse) to call patients within the week after their first treatment to check in to see how they are doing and answer questions. We will keep track of # of calls, #/type of specific issues answered and report again as a QI in a year or so.

4. **QA #2** In early 2016 GU decided to evaluate patient satisfaction post TRUS (in addition to the post TRUS check-up calls) QA for 2017. Data was analyzed (early 2017) from 1-9/2016. There were 117 TRUS appointments with 89 procedures done. Patients were called and 30 messages left and 59 patients who answered: of these 6 refused to discuss and 53 did respond:

Patient Satisfaction Question added 1/2016:

Patient Satisfaction:

On a scale of 0-10 (10 being excellent) How would you rate your care provided at this appointment?

1-10

If you did not say 10, what suggestions would you like to give us to improve the care we provide?

The plan is to look at # of patients who had pt satisfaction <10 (QA) and was there anything “fixable”

For the 53 patients who responded 48 gave a 10/10, 2 a 9/10 for having some pain, 2 and 8/10 for pain and not liking the waiting room, and 1 gave a 10 for care and a 1 for wait time (apparently there was an emergency with the patient prior to him). Overall 5/53 gave a <10 = 9.4%, though only 3 for something which could be improved (pain) /53 = 5.6%. This seems to be reasonable % satisfaction at 10/10 (>90% at 90.5%). Apparently sometime in mid-2016 the urologists starting increasing/changing the local anesthesia protocol. We can consider re-evaluating patient satisfaction (particularly regarding pain) for a QI in 2018 or so.

1. **QI #1** From GU 2016 QA looked at # ER visits after trus for expected side effects which had been discussed. For a 4-month period from 9-12/2014 (reviewed 3/16) there were 7.6% ER visits. On 9/15 GU started a post TRUS call system to check in with patients the day after the TRUS with a post TRUS template for documentation in CPRS:

\_\_ y/o MALE Patient had TRUS Procedure on: \_\_\_

For:

[ ] Biopsy

[x ] Elevated PSA

[ ] Abnormal DRE

[ ] Gold Marker Placement

[ ] Active Surveillance

I called patient as a follow up to above procedure:

[ ] Patient DOES NOT have further questions or concerns at this time.

[ ] Patient DOES have questions or concerns at this time:

Patient was reminded that following a prostate biopsy they may experience small amounts of blood in the urine, in the semen, or in the stool, and a dull ache in the perineum. These side effects are usually minor and diminish within 1-2 weeks. Please avoid any OTC pain medications that contain Aspirin, Ibuprofen, or other NSAIDs.

Patient understands that if they experience any of the following symptoms:

Fever or chills

Large number of blood clots in the urine

Inability to urinate

That they are strongly encouraged to report to the Emergency Department for further evaluation.

They then evaluated (early 2017) a 4-month period with data from 9-12/15 for the # of ER visits relative to the # of TRUS procedures to see if this improved (post calls with template), which it did:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2014** | | **2015** | |
|  | **# of TRUS** | **# ER visits** | **# of TRUS/calls to include message left** | **# ER visits** |
| **Sept** | 18 | 3 | 13 | 0 |
| **Oct** | 18 | 2 | 15 | 0 |
| **Nov** | 13 | 0 | 7 | 1 by NP recommendation |
| **Dec** | 17 | 0 | 22 | 0 |
| ***Total*** | ***66*** | ***5*** | ***57*** | ***1*** |
| ***Percent*** | ***5/66 = 7.6%*** | | ***1/57=1.7%*** | |
| ***ER visits*** |
| ***%Reduction*** | ***5.9%*** | | | |
|  |  | | | |

**QI #2** expand outreach to q3-4m and to include palliative care information (brochure), and smoking cessation, and information regarding the cancer services at the VA, and heme/onc education, and male breast cancer (10/17). DONE.

**Providence VA Medical Center Annual Report for 2017 – Focused Review**

The cancer site distribution by stage for the Providence VA Medical Center for 2017 is summarized in **Table 1. Figure 1** depicts the cancer incidence by primary site. The focus of the 2017 annual report will be on colorectal cancer (CRC).

In 2018, there were ~140,000 cases of CRC diagnosed in the U.S. per the American Cancer Society, Cancer Statistics; there were ~50, 000 deaths. CRC is the 3rd most common in men and women after prostate and lung, and breast and lung respectively. It is the 3rd most common cause of cancer death. 69% are colon cancers, and 31% rectal cancers (up to 12-15 cm from the anal verge). The life time risk for developing CRC is 4.5% in men, and 4.2% in women. The CRC incidence is 25% higher in men than women, and 20% higher in African Americans then Caucasians. In the US the incidence has been declining overall over the last 15 years, attributable to early detection and removal of precancerous polyps. CRC accounts for 8% of all cancer deaths.

The highest incidence of CRC globally is in Australia, New Zealand, Europe and North America, the lowest in Africa and South Central Asia; the differences likely relate to differences in diet and environmental exposures in relationship to a background of genetic susceptibility. An increased risk is seen with lower socioeconomic status (felt related to diet, obesity, smoking, physical inactivity). The incidence of large bowel cancer increases with age > 40. However, more recently, SEER data suggests an increased incidence in the <50 age group; this is predominantly left sided cancers and rectal cancer. The majority diagnosed <50 are symptomatic, which is associated with a more advanced stage. Up until now, screening has not been recommended for <50 unless one has a + FH or predisposing inherited syndrome. One third of young adult CRCs are associated with a known hereditary CRC syndrome. In 2018, the ACS guidelines changed, however. Screening is suggested at 45 for people with average risk through the age of 75 (if they are in good health with a life expectancy of > 10years) and further pending discussion with their provider. Screening can be accomplished via a sensitive fecal IHC (FIT) test yearly, sensitive guaiac based fecal occult blood tests (gFOBT) yearly, multi-targeted stool DNA test (MT-sDNA) every 3years, colonoscopy every 10 years, ct colonography (virtual colonoscopy) every 5 years, or flexible sigmoid (FSIG) every 5 years. People at higher than average risk (+FH of CRC or certain polyps, personal history of CRC or certain polyps, personal history of IBD, known FH of a hereditary colorectal cancer syndrome, a personal history of radiation to the abdomen and pelvis) might need to start screening before 45, be screened more frequently, and/or get specific tests. Overall, there has been a shift toward right sided colon cancers, maybe related to better removal of polyps in the distal colon; maybe colonoscopy preps are less sufficient in the right side, or not completed, or have difficult anatomies, or there are flatter, harder to visualize adenomas on the right. The NCCN still uses >=50 for average risk patients, and 40 for higher risk/familial associated patients.

~90% of afflicted individuals are over the age of 50, with a median age ~ 70 for colon cancer and 63 for rectal cancer. The incidence is higher in patients with specific pre-disposing genetic and non-genetic conditions (inflammatory bowel disease, abdominal radiation, acromegaly, renal transplantation, cystic fibrosis, ureterocolic anastomosis, familial polyp and non-polyp syndromes, non-genetic familial or personal CRC or polyps – large, villous, tubulovillous, multiple lesions, and perhaps other less well defined factors like diabetes, cholecystectomy, androgen deprivation therapy, smoking, alcohol, coronary disease, red meat, a high fat diet). Factors that have been considered (not all credible) to be protective against CRC/adenomas include physical activity, diet related to fiber, folate, b6, calcium, vitamin D, magnesium, garlic, fish, coffee, resistant starch, and drugs including aspirin and nonsteroidal anti-inflammatories, hormone therapy in women, statins, antioxidants, bisphosphonates, angiotensin II inhibitors, suldindac +DFMO or erlotinib.

About 40% of CRC patients are diagnosed with local disease, 35% with regional disease, and 21% with metastatic disease.

Based on NCCN recommendations, following surgical treatment, adjuvant therapy should be offered in colon cancers for node positive disease or high risk T3, or T4 disease (to improve cure rates), and in rectal cancers for node positive or T3 + disease. In the metastatic setting current regimens (FOLFIRI or FOLFOX like therapies +- avastin) offer response rates of ~45% , with median survivals approaching 24 months. Second and third line agents are available with poorer response rates and minimal survival benefits; immunotherapy is an option in patients who are MSI-H, and may offer a survival advantage to a number of patients.

The accompanying figures and tables demonstrate that in 2017 at the Providence VA

Medical Center there were 10 cases of colorectal cancer (8 colon, 2 rectal), the 5th most common site following prostate, lung, bladder, and melanoma (**Figure 2**). In 2012 the ACS (American Cancer Society) cancer statistics revealed that colorectal cancer was the 3rd most common site after prostate or breast (male or female), and lung. The overall median age at diagnosis of our patients was ~72 (**Figure 3**), comparable to that noted in the literature (72). Of our patients 0% were stage 0, 10% stage I, 30% stage II, 10% stage III, 10% stage IV, and 40% unknown **(Figure 4**). The NCDB (National Cancer Data Base) data on colorectal cancer in 2011 found 6% stage 0, 20% stage I, 24% stage II, 23% stage III, 19% stage IV, and 6% unknown.

For colorectal cancer (combined) our 5-year survivals by stage (**Figure 5 and 6**) from 2008-2013 were ~61% stage I, 43% stage II, 73% stage III, and ~<25% stage IV. 5 year survivals by treatment (**Figure 7 and 8**) were 51% for surgery (colon cancer) and 75% (rectal cancer), 71% for combination therapy (colon cancer) and 50% (rectal cancer), and ~40% for no treatment (combined colorectal) at 2-3 years. Overall, treatment improved survival.

In the ACS site (www.cancer.org) survivals based on SEER data from patients diagnosed with CRC from 2004-2010 are described. For colon cancer the 5-year survivals are estimated as 92% Stage I, 87% Stage IIA, 63% stage IIB, 89% stage IIIA, 69% stage IIIB, 53% stage IIIC, and 11% stage IV (these statistics are based on a previous TNM system where some of the staging has now changed). For rectal cancer the 5 year survivals are estimated at 87% stage I, 80% stage IIA, 49% stage IIB, 84% stage IIIA, 71% stage IIIB, 58% stage IIIC, and 12% stage IV. In Cancer Management 5 year survival rates (1995-2005) in all stages of CRC was 64%, 90% in early, localized stages, 67% after spread to adjacent organs or nodes, 10% after spread to distant sites, and 35% in un-staged disease. In Seer.cancer.gov 5 year survivals for cases between 2007 and 2013 were 88.1% Stage I, and 12.6% Stage IV; for cases 2008 to 2014 5 year survival was 63% for all stages, 90% local, 71% regional,13.5% distal, and 26% unstaged.

Our statistics appear to be reasonably comparable to that of the literature, with discrepancies explained by significantly smaller sample sizes.

Finally, for Standard 4.6, the REGISTRY STUDY based on NCCN guidelines, we looked at all the patients diagnosed with colorectal cancer at our VA in 2012 and 2013, and assessed if these patients had a colonoscopy within 1 year and CEAs done ~every 6 months for 5 years. There were 15 CRC cases (8 colon, 7 rectal). 11 had a colonoscopy done within 1 year, 4 did not > 1 died prior to the year, and 3 refused. 12 had CEAs done ~every 6 months, and 3 did not >> 3 refused. It appeared that our follow up of CRC patients per NCCN guidelines with colonoscopies and CEAs (for those who agreed to follow up) was 100%.

**Selected References**

Colorectal Cancer Up-To-Date 2018

Colorectal Cancer Alliance internet site 2018

Cancer Management: A Multidisciplinary Approach 2016

Seer.cancer.gov

NCCN Clinical Practice Guidelines in Oncology 2018

Cancer Staging Handbook 8th Edition

American Cancer Society CA A Cancer Journal for Clinicians 2018

ACS Cancer.Org Internet site (Updates CRC Screening Guideline) 2018

### SITE DISTRIBUTION 2017 Table 1

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Primary Site by Stage | # of Cases | % | 0 | I | II | III | IV | NA | Unk |
| All Sites | **253** | **100** | **23** | **87** | **45** | **25** | **37** | **21** | **15** |
| Head & Neck | **8** | **3.2** | **0** | **1** | **3** | **0** | **4** | **0** | **0** |
| Oral Cavity | **3** | **1.2** | **0** | **1** | **0** | **0** | **2** | **0** | **0** |
| Pharynx | **5** | **2.0** | **0** | **0** | **3** | **0** | **2** | **0** | **0** |
| GI | **42** | **16.6** | **0** | **6** | **10** | **7** | **12** | **1** | **6** |
| Esophageal | **4** | **1.6** | **0** | **1** | **2** | **1** | **0** | **0** | **0** |
| Stomach | **7** | **2.8** | **0** | **0** | **1** | **2** | **2** | **0** | **2** |
| Colon | **8** | **3.2** | **0** | **1** | **3** | **1** | **1** | **0** | **2** |
| Rectal/sig | **2** | **0.8** | **0** | **0** | **0** | **0** | **0** | **0** | **2** |
| Small intestine | **2** | **0.8** | **0** | **0** | **0** | **0** | **2** | **0** | **0** |
| Liver | **9** | **3.6** | **0** | **3** | **1** | **2** | **3** | **0** | **0** |
| Pancreas | **9** | **3.6** | **0** | **1** | **3** | **2** | **4** | **0** | **0** |
| Biliary | **1** | **0.4** | **0** | **0** | **0** | **0** | **0** | **1** | **0** |
| Resp./Thoracic | **50** | **19.8** | **0** | **29** | **4** | **7** | **8** | **0** | **2** |
| Larynx | **1** | **0.4** | **0** | **1** | **0** | **0** | **0** | **0** | **0** |
| Lung# | **49** | **19.4** | **0** | **28** | **4** | **7** | **8** | **0** | **2** |
| NSCL | **48** | **18.9** | **0** | **22(1A)6(1B)** | **2(2A)2(2B)** | **7(3A)** | **9** | **0** | **2** |
| Small Cell | **1** | **0.4** | **0** | **0** | **0** | **1E** | **0** | **0** | **0** |
| Skin \*\* | **14** | **5.5** | **5** | **5(1A)2(1B)** | **1(2A)** | **0** | **1(4B)** | **0** | **0** |
| Melanoma | **14** | **5.5** | **5** | **5(1A)2(1B)** | **1(2A)** | **0** | **1(4B)** | **0** | **0** |
| GU | **97** | **38.3** | **18** | **38** | **26** | **5** | **8** | **2** | **1** |
| Prostate | **54** | **21.3** | **0** | **18** | **24** | **4** | **7** | **1** | **0** |
| Kidney | **3** | **1.2** | **0** | **3** | **0** | **0** | **0** | **0** | **0** |
| Bladder\*\*\* | **38** | **15** | **18** | **17** | **2** | **0** | **1** | **0** | **0** |
| Testis | **2** | **0.8** | **0** | **0** | **0** | **1** | **0** | **0** | **1** |
| Connective Tissue | **3** | **1.2** | **0** | **2** | **0** | **0** | **0** | **0** | **1** |
| Lymphoma | **10** | **3.9** | **0** | **1** | **0** | **5** | **3** | **0** | **1** |
| NHL# | **10** | **3.9** | **0** | **1A** | **0** | **3A 2B** | **2A1B** | **0** | **1** |
| Hematopoietic\* | **15** | **5.9** | **0** | **0** | **0** | **0** | **0** | **15** | **0** |
| Thyroid | **6** | **2.4** | **0** | **1** | **1** | **1** | **1** | **1** | **1** |
| CNS | **3** | **1.2** | **0** | **0** | **0** | **0** | **0** | **2** | **1** |
| Breast | **2** | **0.8** | **0** | **2** | **0** | **0** | **0** | **0** | **0** |
| Unknown Primary | **3** | **1.2** | **0** | **0** | **0** | **0** | **0** | **3** | **0** |

\*These were 1 MDS, 6 CLL, 1 HCL, 1 CML, 2 MPD, 1 MM, 2 AL, 1 MDS/MPD; this data does not include all CLL, Waldenstrom’s,, MM, MPD, or MDS

\*\* Does not include superficial squamous or basal cell cancers

\*\*\* Bladder (36), Ureter (1), Renal pelvis (1)

#Lymphoma: 4 DLBC, 2 FL, 2 high grade lymphoma, 1 MCL, 1 T AICL w likely 2ndary EBV+ DLBCL



# Head and Neck 3.2%

# Larynx 0.4%

# Colorectal 4%

# Prostate 21.3%

# GU 15%

# Other sites 34%

# Unknown 1.2 %

**Melanoma 5.5%**

# Lung 19.4%

**Figure 1 - Cancer Incidence by Primary Sites 2017 (n=253)**

STANDARD 4.6: REGISTRY STUDY BASED ON NCCN guidelines for Annual Report 2017 (colorectal cancer)

CRC Stage I/II/III 2012 and 2013 (8 colon, 7 rectal = 15 CRC)

1. Per NCCN Was a colonoscopy done with 1 year after treatment? (none had obstruction at the time of diagnosis)
   1. 11 YES, 4 NO >> 1 died prior to the year from disease progression, 3 declined
2. Per NCCN was a CEA done ~every 6 months after initial treatment for 5 years?
   1. 12 YES, 3 NO >> 3 declined

It appears that our follow up of CRC patients with colonoscopies/CEAs per NCCN guidelines (for those who agreed to fu) was 100%.